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Changes in Quality, Cost, Expenses Per Capita, and Beneficiaries of the Medicare Shared Savings Program

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Walden University

College of Management and Human Potential

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Vanessa Weaver

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2024

Abstract

Changes in Quality, Cost, Expenses Per Capita, and Beneficiaries of the Medicare Shared

Savings Program

by

Vanessa Weaver

MHA, The University of Oklahoma, 2017

BS, The University of Oklahoma, 2010

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Healthcare Administration

Walden University

November 2024

Abstract

Annual national health spending continues to increase, and evidence does not support the notion that the majority of reform programs, which have concentrated on quality-based payment schemes, have improved healthcare quality or health outcomes in a way that is necessary. Consequently, health care expenses are still linked to high expenditures despite the intended improvements in outcomes not occurring. Using the Donabedian model of structure-process-outcome as the conceptual framework, the relationship between the quality score and the generated total savings and generated total losses for Medicare Shared Savings Program (MSSP) Accountable Care Organization (ACO) Participants from 2019 through 2021 was investigated. The relationship between the quality score and total assigned beneficiaries for MSSP ACO participants during the same time period, as well as the relationship between the quality score and expenditures per capita between 2019 and 2021 were also examined. The results showed for MSSP ACO participants for the years 2019 through 2021, there are statistically significant correlations between the quality score and generated total savings, generated total losses, expenditures per capita, and total assigned beneficiaries. Quality score is a predictor of total assigned beneficiaries, expenditures per capita, generated total losses, and generated total savings. More significantly, the analysis shows MSSP ACOs can be a powerful tool for leaders looking to lower related healthcare costs and raise standards in the U.S. healthcare system. The social impact this study facilitated is organizations better understand how to address the healthcare quality the people they serve deserve, by lowering healthcare costs and better outcomes by implementing MSSP ACOs.

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Dedication

This work is dedicated to my wonderful husband Robert. His unwavering support and unconditional love have provided me with the motivation necessary to accomplish my goals.

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Section 1: Foundation of the Study and Literature Review

Introduction

The healthcare system in the United States is widely recognized as being fragmented and delivering inadequate quality of care at excessive costs. As detailed by the originators of the concept of value-based healthcare, Porter and Teisberg (2006), healthcare in the United States is on a collision course with rising costs, mounting quality problems, and current healthcare payment models have plagued the delivery of services and outcomes. To change the predicted path of healthcare, numerous initiatives have been investigated to improve patient outcomes, reform payment and compensation systems, and align healthcare services to be more effective. The most recent significant initiative was the enactment of the comprehensive healthcare reform law commonly denoted to as the Affordable Care Act of March of 2010 (Callaghan et al., 2020). The Affordable Care Act required health care organizations to deliver high-quality care at lower costs. A framework was created by the Institute for Healthcare Improvement that eventually evolved to become what is now referred to as the Quintuple Aim, which focuses on reducing costs, improving team morale and output, and raising public health and patient satisfaction (Arnetz et al., 2020).

Historically, physicians and other healthcare professionals, were compensated for each unbundled service under the fee for service (FFS) payment model. Due to its design, the FFS payment model fundamentally motivated healthcare professionals to focus on quantity above quality by prioritizing patient visits, surgical procedures, diagnostic services, and treatments driving the cost of healthcare up. In 2014, healthcare spending

represented 17.5% of the GDP, with Medicare making about 14% of the federal budget's total expenditure (Novikov et al., 2018). Further, just 3% of healthcare spending was devoted to public health and prevention, while chronic diseases accounted for 86% of costs (Holman, 2020).

Some projections on healthcare spending predict increases are expected to grow faster than originally anticipated due to increased Medicaid coverage, Medicare enrollment rising, and premium and cost-sharing assistance being added to health insurance exchange plans. According to Keehan et al. (2017), the amount spent on healthcare by the federal, state, and local governments was expected to increase from 46% in 2011 to about 50% in 2021, with federal spending making up roughly two-thirds of the total government contribution. Other projections have predicted even greater increases in government spending on healthcare. According to the Centers for Medicare and Medicaid Services (2022b), national health spending is predicted to increase by 5.1% annually on average between 2021 and 2030, reaching around \$6.8 trillion. Additionally, it is expected that over this period, the gross domestic product (GDP) of the country will rise by 5.1% yearly. With increases to healthcare spending expected to grow exponentially, healthcare reform has become a focal point across the United States.

The CMS established an innovation center in 2010 as part of the Patient Protection and Affordable Care Act (ACA), which also helped test many payment reform initiatives (CMS, n.d.d.). Section 3022 of the ACA created the largest alternative payment model (APM) for Medicare's endeavor in the United States, known as Accountable Care Organizations (ACOs). ACOs are groups of healthcare professionals

who work together to offer assigned patients coordinated, high-quality care. Additionally, Title 42 CFR Part 425 of the ACA allowed for CMS to roll out the Medicare Shared Savings Program (MSSP), which provides compensation for ACOs. The goal of MSSP is to improve patient population accountability, encourage partners to invest in infrastructure and reformed care procedures for high-quality and effective services, and coordinate products and services under Medicare Parts A and B. In accordance with the MSSP, the payer establishes a spending threshold for the beneficiary population over a predetermined period of time and divides any gains (losses) resulting from it with the ACO (CMS, n.d.d.).

Background

This study was necessary to evaluate how MSSPs are affecting the overall American healthcare goals to enhance care quality while lowering costs for the Medicare populations, shifting the focus more toward value-based treatment. I reviewed the total assigned beneficiaries, quality score, generated total savings/losses, and expenditures per capita from 2019 through 2021. To determine the performance year association of quality and cost metrics for the managed population of the MSSP from 2019 through 2021, I conducted the study at the microlevel. The study is significant subsequently as it adds to the understanding of the MSSP and how it contributes to quality of care and healthcare costs. Depending on the results, healthcare leaders can implement strategies to incorporate the MSSP into their organization to enhance care quality while cutting expenditures associated with healthcare services. Providing healthcare leaders with information on the positive impacts of the MSSP and how it contributes to refining the

quality of care and minimizing costs may assist with decisions, which align with the overall goals of healthcare and create social change.

Problem Statement

National health spending is expected to rise by 5.1% on average per year between 2021 and 2030, totaling around \$6.8 trillion (CMS, 2022b). Most reform initiatives have focused on payment methods for quality; however, the evidence does not show that these changes have produced the essential improvements in healthcare quality or health outcomes. As a result, health care costs continue to be associated with high costs without desired improvements in outcomes.

To better coordinate treatment for Medicare FFS patients and slow the growth of Parts A and B spending, ACOs began assisting healthcare providers in collaborating with one another through the MSSP (CMS, 2018). Under traditional Medicare, the MSSP is a long-term ACO program that provides incentives for meeting or exceeding quality and cost-saving goals. If the assigned beneficiaries of the ACO's expenditures fall short of their specific aims, referred to as their benchmark, by a sum that meets or surpasses a minimal savings rate threshold, the ACO will receive a portion of the savings for each performance year of the agreement period (The Federal Register, n.d.). However, it must be noted that the organization must also meet the quality performance criterion and continue to be eligible to participate in the Shared Savings Program to receive their savings. A payment to CMS for shared losses occurs if spending for the ACO's assigned beneficiaries for the performance year exceeds their benchmark by an amount that

reaches or exceeds a minimum loss rate level required for ACOs participating in a two-sided model (CMS, 2022b).

The specific research problem addressed in the study was that although researchers have investigated this issue, there is very little empirical literature available on how the value-based healthcare delivery model has improved quality of care, health outcomes, and the costs associated with healthcare services in most recent years of the program. I explored what changes the MSSP has had on healthcare quality outcomes and cost savings.

Purpose of the Study

In this quantitative study, I applied secondary data to address four research questions. The statistics were based on openly available information from the federal agency CMS for the MSSP ACO performance years of 2019–2021. My goal was to determine if MSSP ACOs are a sustainable alternative that is usable to guarantee lower costs and improved quality for serving the Medicare population.

The purpose of this study, which differentiates itself from other studies that examine MSSP ACOs, was to understand the relationship between the quality score and generated total savings and generated total losses for Medicare Shared Savings Program ACO participants from 2019 through 2021. Additionally, I examined the relationship between the quality score and expenditures per capita between 2019 through 2021 and the relationship between the quality score and total assigned beneficiaries for the same timeframe for Medicare Shared Savings Program ACO participants.

According to the literature, the MSSP serves as a strategic way for U.S. health organizations to achieve systemic objectives due to their ability to positively impact costs and quality (Wilson et al, 2020). Further, as progress within program participation continues and initiatives become more productive, the federal government could see tremendous cost savings while participants experience guaranteed improvements in quality of care (Pittman, 2021). Table 1 introduces the CMS variables, how each CMS variable was termed throughout the study, and definitions for each term.

Table 1*CMS Variables, Terms, and Definitions*

CMS Variable Name	CMS Term Name	CMS Definition
GenSaveLoss	Generated Total Savings/Losses	Generated Savings: Total savings for ACOs whose savings rate matched or surpassed their MSR, expressed as Benchmark Minus Expenditures, starting with the first dollar and going down to the last. This sum does not take into consideration the application of the performance payment ceiling, reduction from sequestration, application of the ACO's final sharing rate based on quality performance, or return of advance payments. Generated losses: Total losses for ACOs in two-sided models whose losses rate matched or exceeded their MLR, expressed as Benchmark Minus Assigned Expenditures, starting with the first dollar and going down to the last. This sum does not take into consideration the loss sharing cap or the application of the ACO's final sharing rate based on quality performance.
QualScore	Quality Score	Quality score: ACO's quality rating for a performance year based on the relevant methodology. An ACO's quality performance score for PY 2021 was determined by adding quality improvement points, any relevant MIPS bonus points, and the ACO's performance on the quality metrics provided under the Alternative Payment Model (APM) Performance Pathway (APP). Excluding entities/providers eligible for facility-based scoring, the quality score for ACOs found to have been impacted by an extreme and uncontrollable event was the higher of the ACO's MIPS QPC score or the 30th percentile across all MIPS QPC scores.
N_AB	Total Assigned Beneficiaries	Number of allotted beneficiaries, performance year.
ABtotExp	Total expenditures	Per capita performance year expenditures (Per_Capita_Exp_TOTAL) multiplied by total person years (N_AB_Year).
Per_Capita_Exp_TOTAL_P Y	Per capita ALL expenditures in performance year	Annualized, truncated, weighted mean total expenditures per assigned beneficiary person years in the performance year.

Note. Adapted from *Data Dictionary: Medicare shared savings program performance*

year financial and quality results. by The Centers for Medicare and Medicaid Services. (2021).

<https://data.cms.gov/medicare-shared-savings-program/performance-year-financial-and-quality-results>

Research Questions and Hypotheses

RQ1: Is there a statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants? (IV is generated total savings, DV is quality score; bivariate regression)

*H*₀1: There is a statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants.

*H*₁1: There is no statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants.

RQ2: Is there a statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants? (IV is generated total losses, DV is quality score; bivariate regression)

*H*₀2: There is a statistically significant relationship between the Quality Score and Generated Total Losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants.

*H*₁2: There is no statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants.

RQ3: Is there a statistically significant relationship between the Quality Score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants? (IV is Expenditures per Capita, DV is Quality Score; bivariate regression)

H₀₃: There is a statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants.

H₁₃: There is no statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants.

RQ4: Is there a statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants? (IV is total assigned beneficiaries, DV is quality score; bivariate regression)

H₀₄: There is a statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants.

H₁₄: There is no statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program accountable care organization participants.

Theoretical Foundation of the Study

The concepts that ground this study are consistent with the Donabedian model of structure-process-outcome. According to Donabedian (1988), the model is a conceptual framework that offers a method for analyzing healthcare and assessing the standard of care. Before an evaluation of quality of care can begin, quality must be defined. This is contingent upon several factors, including the extent to which health and accountability for healthcare are defined, whether the most effective care possible is sought after instead of the best possible care, and whether social or individual preferences are used to define the ideal. Further, comprehensive understanding of the causal connections between the processes of care, the outcome of care, and the structural features of the environments in which care is delivered is also required.

Consequently, Donabedian (1988) contended that the categories of structure, procedure, and results might be used to categorize the quality of care. Additionally, he explained that every element of structure influences the environment where the care is provided. The total of all healthcare-related activities, such as diagnosis, treatment, and preventative care, is referred to as the process. All changes to a person's health status, behavior, or knowledge as well as patient happiness and quality of life in relation to health are all considered outcomes of healthcare for individuals or communities. Outcome is frequently regarded as the most significant indicator of quality. To construct a chain of causality that is conceptually helpful for understanding systems, conducting experiments, and interventions, Donabedian pointed out that each of the three domains

interacts with the others in such a way that researchers must make linkages between them.

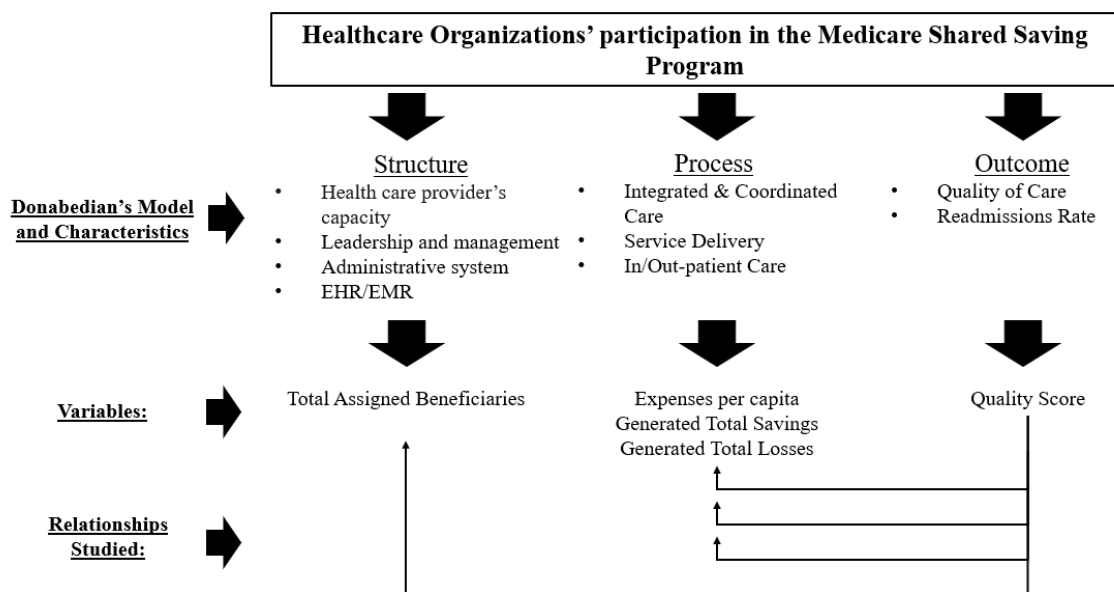
In this study, the interactions between quality, generated total savings and losses, per capita expenditures, and total assigned beneficiaries in the overall system were examined to better understand the effects of MSSP on the delivery of health care. According to Donabedian (1988), structure measurements influence process measurements, and process measurements influence outcome measurements. These make up an effective collection of measurements and serve as the foundation for the design of the MSSP as a whole. As described by Lighter (2015), the MSSP was created to merge quality with cost containment within an integrated healthcare structure. Therefore, the introduction of MSSP ACOs provides participating health care organizations with a method for potential control and measurement of Medicare costs, improved coordination of care and outcomes.

The three main areas, which healthcare services are divided in the model are structure, process, and outcomes (Agency for Healthcare Research and Quality, [AHRQ], 2015). Customers can assess the capabilities, processes, and workflows of a healthcare provider by using structure measures. Process metrics show how a provider maintains or enhances health, for both individuals with a diagnosis of a medical condition and those who are usually well (AHRQ, 2015). These measurements identify the precise steps in a process that positively or negatively affect a particular outcome statistic. The outcome reflects how the medical service or intervention affected the patients' condition of health.

measurements. Figure 1 demonstrates how the MSSP relates to the Donabedian Model and the scope of the study.

Figure 1:

The Relationship between the Donabedian Model and MSSP



NOTE. The Donabedian Model and how it relates to the Scope of the Study.

Nature of the Study

For the study, secondary data was used to quantitatively address the four research questions. The data set for the study was obtained from the CMS website and consisted of data from the MSSP ACO performance years from 2019 through 2021. This provided the opportunity to leverage current data through a common analytical file, which assisted me to effectively summarize data for beneficiaries and providers for the performance year of the mssp. I sought to determine whether there is an association between total assigned beneficiaries, quality score, generated total savings/losses, and expenditures per capita. In addition, it offered ideas for further investigation into the potential effects of MSSP

ACOs on enhancing care for Medicare beneficiaries while reducing costs. With healthcare spending reaching 17.5% of the gross domestic product (GDP) in 2014 and Medicare accounting for 14% of the consumption of the federal budget healthcare leaders are required to develop more inventive, viable, and cost-effective ways to deliver healthcare (Novikov et al., 2018). Understanding the connections among the total assigned beneficiaries, quality score, generated total savings/losses, and expenditures per capita may aid health care professionals to create strategies for securing inexpensive and enduring methods for delivering health care services.

Literature Search Strategy

I identified articles to use for this study by searching keywords and phrases *including MSSP, quality of care, health outcomes, expenditures per capita, cost savings, value-based care, quality measurements, ACOs, CMS, total assigned beneficiaries, and cost savings*. Searches conducted for articles were performed in databases to include EBSCO host, MEDLINE with full text, ProQuest, Science Direct, Health Affairs, and Sage Journals. The scope of the literature review incorporated articles published between the years 2017 and 2023.

Additionally, the literature review consists of peer-reviewed journal articles, dissertations, doctorate, and master's level research, as well as other scholarly materials to review the literature in relation to accountable health care in the United States. More specifically, topics of the review included the following constructs: MSSP, healthcare outcomes, quality of care, and cost savings.

Medicare Shared Savings Program and Healthcare Outcomes

The Patient Protection and ACA is considered a major piece of legislation that included reforms aimed to address high-cost, complex, and vulnerable patient populations (The Federal Register, n.d.). The transition to the new payment methodologies, to include the MSSP, took on several iterations and pathways. The Physician Group Demonstration Project was approved by the Bush administration and later evolved into the MSSP, which was given permanent authorization under the Affordable Care Act (CMS, 2012). MSSP launched in 2012 and offered two levels of participation: Track 1 and 2. Track 1+ and Track 3 for the MSSP were added in 2016 and 2018, respectively⁵⁷ (Holder, n.d.). Models have continued to be modified in efforts to drive improvements in health care and to find the best design to achieve the Quintuple Aim in the US health system.

On December 21, 2018, the MSSP, which is moving in a new direction, provided information on "Pathways to Success," a revised direction for the MSSP (CMS, 2018). To participate in the Shared Savings Program for a minimum term of 5 years, current or new ACOs can select between an enhanced track, (i.e., the highest level of risk and potential reward), and the basic track, (i.e., a glide route for qualified ACOs). ACOs may start with a one-sided model and progress to greater levels of increasing risk and prospective profit by using the glide path of the BASIC track. (CMS, 1998).

Regardless of the track selected, one of the purposes of the MSSP ACOs since its inception has been to improve healthcare outcomes. The consequences on a person's health that result from treating a disease or interacting with the healthcare system are known as health outcomes (Lee & Leung, 2014). In efforts to determine whether this

objective has been met, multiple studies have explored how MSSP ACOs have met this particular goals. The studies conducted on earlier models yielded mixed results.

To date, the MSSP has resulted in mixed reviews of successes, failures, and minimal changes. Wilson et al. (2020) conducted a systemic review in which two studies found positive associations between MSSP ACOs and health outcomes. In the first study, cancer patients' mortality was significantly lower at physician group practice site. According to the second study, hospitals that joined an ACO and were more centralized had considerably greater mortality reductions than those that remained independent (Wilson et al., 2020).

In another study which examined the effects of eligibility and race/ethnicity on the usage of mental health and drug use services under the MSSP, the authors found small decreases in outpatient and inpatient stays (Acevedo et al., 2021). Additionally, the researchers found slight reductions in the rates of appropriate care for depression in MSSP ACOs (Acevedo et al., 2021). On the other hand, Counts et al. (2019), found that the current ACO design does not seem to incentivize better behavioral health results, despite the fact that MSSP and value-based payments provide assurance for effective mental health treatment and enhancing population health. Further, another study found that when compared to other beneficiaries, dual eligible beneficiaries serviced by Medicare ACOs did not experience lower costs, fewer hospitalizations, or a decline in readmissions. Additionally, for some diagnostic groups, ACO participation was linked to timely follow-up after mental health inpatient stays, an increase in ambulatory care, and fewer ED visits (Colla et al., 2023).

Since the ACA's implementation more than 10 years ago, clinical integration has given providers excellent opportunity to collaborate with hospitals as an economic unit. Integration has been associated with providing better health outcomes with skilled nursing facilities (SNF) and hospitals. Kaufman et al. (2019) found that beneficiary ACO alignment was linked to an increase in discharges to home, and a decrease in the length of inpatient stays, and from hospitals joining MSSP in 2013. Additionally, the authors found there was no connection found between MSSP and death or recurrent stroke. Winblad et al. (2017) found that in comparison to hospitals not affiliated with an ACO, the hospitals participating in an ACO experienced a decline in readmission rates by 4.0 percentage points after 2010. Moreover, Shared Savings hospitals experienced a greater decline in rehospitalizations from skilled care institutions.

Health outcomes for chronic diseases have been linked to positive outcomes for MSSP ACOs. Frazee et al. (2018) found that between contract years 1 and 2, MSSP ACOs greatly enhanced diabetic patient outcomes. In the first year, performance was also positively correlated with having a private payer contract and a greater number of services offered by the ACO. Another study that looked at how primary care and cardiology practices participating in an ACO performed on metrics for coronary artery disease (CAD), heart failure (HF), and atrial fibrillation (AF) in the first year, found no proof of improvement (Spatz et al., 2022).

Other studies found marginal or no differences in health outcomes between non-ACO-affiliated healthcare organizations and MSSP ACOs. McWilliams et al. (2017), found that participation in the MSSP was not linked to variations in mortality, 30-day

readmissions, or the percentage of patients sent to 4- or 5-star skilled nursing facilities following being discharged from a hospital.

In the systemic review conducted by Wilson et al. (2020), of the eight studies found, four studies found no evidence of a relationship between MSSP and short-term health outcomes, such as 30-day mortality, inpatient mortality, and surgical complications in cancer patients, as well as no significant influence on mortality in the initial years of the MSSP and VBP. Similarly, participation in MSSP ACOs by hospitals reduces the need for post-acute care without affecting patient outcomes for Medicare beneficiaries having surgery for bladder cancer (Katragadda et al., 2022).

Medicare Shared Savings Program and Quality of Care

An important feature of the MSSP is the utilization of quality measures to determine the quality of care. Health plans and doctors can use quality measures (QMs) as performance tools to monitor and affect the quality and quantity of healthcare services provided (Rubin & Israel, 2022). Numerous facets of patient care are included in quality of services and care. When carefully designed and put into practice, QMs can improve medical care by directing clinical efforts toward favorable health outcomes as expected of MSSP participants.

Expectations associated with quality of care and MSSP participation, however, have been considerably conflicting. On several variables, five studies found PGP, AQC, MSSP, and Pioneer models to be superior to fee-for-service models (Wilson et al., 2020). Improvements in quality of care were associated with conditions like chronic obstructive pulmonary disease (COPD), diabetes, and congestive heart failure; increasing the

proportion of participants who satisfy pediatric and chronic-care management levels; and lowering hospital admissions related to important preventative indicators.

Further, mixed results were found for quality measures and geographical location of MSSP participants as well. Zhu et al. (2019) found that after correcting for structural and service-provision characteristics, there is no discernible difference between rural ACOs and other ACOs in terms of average quality performance. Size of the beneficiary panel, posthospitalization follow-up rate, and hospital-system sponsorship all have a beneficial impact on MSSP ACO quality performance. While Kim et al. (2018) concluded that for Medicare patients originally treated for heart failure or pneumonia by MSSP participating hospitals were provided better quality of care and some decreases in readmissions over postimplementation years compared to other hospitals located in urban areas.

Healthcare providers have higher incentives to promote health when working under an ACO arrangement than those working under a fee-for-service contract. Participation in MSSP by primary care physicians was linked to an increase in the frequency and supply of various preventive services (Huang et al., 2022). This finding was further supported by Si et al. (2022) who following the completion of a cohort study of more than 1.7 million Medicare beneficiaries, concluded that MSSP exit was linked to slight drops in clinical quality involving preventative services.

According to Verma (2020), in 2019, 92% of qualifying ACOs received incentive points for the quality improvement data reported. Overall, ACOs demonstrated the biggest gains in the patient safety and care coordination quality domains. Further, in

comparison to other physician group practices, ACOs continued to display comparable or superior performance on measures.

Other studies found an association between size and quality measurements. Pham and McClellan (2018) concluded that the majority of quality metrics were improved by MSSP ACOs on average, supporting early federal findings. Greater quality was associated with larger ACOs, although during the first three years of their expansion, these organizations experienced some difficulties in terms of clinical treatment for at-risk groups. By the fourth year, however, their growth had reached a plateau (Bleser et al., 2018).

Additionally, associations between different characteristics of ACOs such as physician-led versus hospital integration have been made in outcomes of ACO participation. In a study that examined how three different ACO models—physician-led, integrated, and hybrid—performed across three different domains, researchers found that following an adjusted analysis, integrated ACOs outperform physician-led ACOs in all dimensions of quality measures but patient safety, however the differences were considered not to be statistically significant (Comfort et al., 2018).

In a study conducted to compare the quality ratings of MSSP ACOs with Next Generation ACO (NGACOs), researchers conducted that quality data from NGACO and MSSP demonstrate comparable performance therefore, indicating that raising the financial risk faced by health systems was not a significant deterrent of participating in ACOs (Clark et al., 2021).

Overall, however, ACOs have been found to meet or exceed the expected outcomes. According to Verma (2020), in 2019, 92% of qualifying ACOs received incentive points for the quality improvement data reported. Overall, ACOs demonstrated the biggest gains in the patient safety and care coordination quality domains. Further, in comparison to other physician group practices, ACOs continued to display comparable or superior performance on measures.

Medicare Shared Savings Program and Cost Savings

The ACOs under the optional MSSP are incentivized to achieve excellent performance on specific quality indicators while reducing costs for Medicare patients. In the ninth performance year (2021), the MSSP results were made public by CMS (Wang et al., 2022). With equal numbers of ACOs producing net savings (81%) and getting shared savings (58%), the program realized savings of more than \$1.6 billion in 2021. ACOs produced roughly the same amount of net savings of \$190 per associated beneficiary as in the previous year. Physician group-led ACOs were more likely to achieve savings relative to their benchmark and receive bonus payments than hospital-led or jointly led ACOs.

Alternatively, Zhou et al. (2022) looked at the total Medicare savings related to MSSP and changes in Part D spending. The analysis covered a total of 32,824,382 beneficiary-years, with 10% of the beneficiaries being part of an ACO on average of the annual samples. Beneficiaries of the ACO and the comparisons were similar at start, and minor variances remained constant from baseline through performance period for quality care measures.

In one study, participation in MSSP was linked to notable drops in post-acute cost without a discernible decline in treatment quality. Spending reductions were more in line with doctors influencing treatment for ACO patients inside hospitals and SNFs than with ACO hospital-wide initiatives or the use of preferred SNFs (McWilliams et al., 2017). In another study, while adjusting for hospital and year fixed effects, organizational and service-area characteristics, Huang et al. (2023) used an event-study design to evaluate the chronological impact of MSSP participation on hospital financial outcomes and compare with hospital trends over time among MSSP and non-MSSP hospitals. Participation in the MSSP was linked to varying increases in Medicare revenue, inpatient revenue share, net patient income, and Medicare revenue share, together with different reductions in the allowance and discount rate.

Time spent in the MSSP program has been directly associated with the amount of cost savings experienced. Contribution in shared-savings contracts by physician groups was linked to Medicare savings that increased over the research period after the MSSP had been in place for 3 years, whereas hospital-integrated ACOs did not generate savings (on average) during the same time (McWilliams et al., 2018). The size of the organization has also been shown to play a role in cost savings. According to Pham and McClellan (2018), post-acute care (PAC) spending was inversely related to quality, particularly when it came to patient safety and care coordination metrics. Further, they found that PAC spending went up in the first year but decreased in the following years.

Parasrampur et al. (2018) discovered a positive relationship between quality and cost per beneficiary, with expenditures falling as quality rose. Researchers found low

quality ACOs were defined as those with a composite quality score of less than 60%, medium quality ACOs as those with a composite quality score of between 60% and 75%, and high quality ACOs were those with a composite quality score of 75% or higher. The MSSPs that were of good quality were also those who saved the most money, whereas those of low quality incurred losses. These findings imply that integrated care, which promotes higher systemic efficiency, makes it possible to lower costs while also raising quality.

In contrast, researchers found that regional cost and patient experience were better predictors for success of ACOs and not size or hospital presence. Schulz et al. (2017), examined all 339 MSSP ACOs with a start-date of 2012, 2013, or 2014 using financial figures. Success was correlated with experience as indicated by time spent in the MSSP program, and earning shared savings varied by area. ACOs in high-cost locations were more likely to achieve savings, and this variance was highly correlated with regional variations in Medicare fee-for-service per capita expenditures. Similarly, Berkson et al. (2020) found that ACOs with greater baseline expenditures were shown to be considerably more likely to produce savings than ACOs with lower costs in their study that examined 2013 data for 220 participating ACOs. Furthermore, following geographical and risk-adjustment, beneficiary spending was 14% greater for ACOs in the highest-spending quartile than it was for those in the lowest quartile (Kyle et al., 2020).

According to Verma (2020), in 2019, low-revenue ACOs have outperformed high-revenue ACOs in general. High revenue ACOs were found to have been managed by hospitals and provided both inpatient and outpatient services. In contrast, low-revenue

ACOs were found to be managed by physicians who primarily provide outpatient treatments. Verma found that overall, low-revenue ACOs saved \$201 per beneficiary, compared to high-revenue ACOs' savings of \$80 per beneficiary. The same pattern was also observed for ACOs participating in the new Pathways to Success choices, with low-revenue ACOs saving \$189 net per beneficiary and high-revenue ACOs saving \$155 net per beneficiary.

Additionally, compared to existing types of MSSP ACOs, the NGACO model enhances risk and financial benefit that providing organizations can acquire. However, according to Clark et al. (2021), although it was concluded that the NGACOs had more aligned beneficiaries, after correcting for size and fixed variables, there were no statistically significant differences in average gross savings between NGACOs and MSSP ACOs (\$1.90 million for NGACOs vs. \$2.21 million for MSSP ACOs; $P = .78$).

Definitions

Accountable Care Organization (ACO): Refers to a legal entity constituted by one or more ACO participants that is acknowledged and permitted by applicable State, Federal, or Tribal legislation and is designated by a taxpayer identification number (TIN; (The Federal Register, n.d.).

Cost Savings: A decrease in real expenditures below the level of expenditures as of right now in order to accomplish a particular goal (CMS, 2021).

Expenditures per Capita: Annualized, truncated, weighted mean total expenditures per assigned beneficiary person years in the performance year (CMS, 2021).

Generated Total Losses: Total losses for ACOs in two-sided models with losses rates that were equal to or higher than their MLR (calculated as benchmark minus assigned expenditures, starting with the first dollar). This sum does not take into consideration the application of the final sharing rate established by the ACO based on quality performance or the loss sharing cap.

Generated Total Savings: Total savings for ACOs whose savings rate matched or surpassed their MSR (calculated as benchmark minus expenditures, from first to last dollar). The application of the ACO's final sharing rate based on quality performance, a reduction as a result of sequestration, the application of the performance payment limit, or the repayment of advance payments are not considered in this sum (CMS, 2021).

Medicare Shared Savings Program: The Section 1899 of the Act's program, which is carried out in this area (The Federal Register, n.d.).

Performance Year: Means, unless otherwise provided, the 12-month term of the agreement term beginning on January 1 of each year (The Federal Register, n.d.).

Quality of Care: The extent to which health care services are in line with current professional knowledge and improve the likelihood of desired health outcomes for both persons and populations (CMS, 2016).

Quality Measurements: The criteria set forth by the secretary under Section 1899 of the Act to evaluate the standard of care provided by an ACO, including clinical process and outcome metrics, patient and, to the extent possible, caregiver experiences of treatment, and utilization (The Federal Register, n.d.).

Quality Score: ACO's quality rating for a performance year based on the relevant methodology. The quality performance score of ACO's for PY 2021 was determined by adding quality improvement points, any relevant MIPS bonus points, and the ACO's performance on the quality metrics provided under the alternative payment model (APM) performance pathway (APP). The quality score for ACOs was impacted by uncontrollable circumstances when the greater of the MIPS QPC score for the ACO or the 30th percentile of all MIPS QPC scores, apart from entities and providers qualified for facility-based scoring (CMS, 2021).

Total Assigned Beneficiaries: Number of assigned beneficiaries, performance year (CMS, 2021).

Value-based Care: Healthcare focused on a patient's experience of care including performance of the entity and quality care, (CMS, n.d.-a).

Assumptions

The assumptions I made throughout the study were inclusive to MSSP ACOs and their understanding of what their participation meant during the period from 2019 and 2021. This included an assumption regarding their understanding of the goals of MSSP ACOs and understanding of how to effectively meet the objectives of MSSP to ensure positive outcomes. These presumptions are crucial because of the large number of ACOs participating in the MSSP managed in the study (475 total organizations).

Additionally, I assumed that MSSP ACOs are aware that they agreed to be held responsible for the overall care of their patient population and coordination of care with multiple healthcare teams and that they must work toward redesigning healthcare to

ensure the delivery of highly effective and high-quality services. These presumptions are important because of the large population involved in the dataset (over 10 million total assigned beneficiaries).

Scope and Delimitations

The scope of the study was comprehensive of MSSP ACO results for total assigned beneficiaries, expenditures per capita, generated total savings/losses and quality score between 2019 and 2021. The specific concerns described in the research problem was addressed in the study by examining the cost, quality, and total assigned beneficiaries of MSSP ACO participants from 2019 through 2021. Data for MSSP ACOs was available for performance years 2019 through 2021 therefore, chosen as the specific time frame range for the focus of the data in the study.

Delimitations are the set boundaries determined by the researcher to promote achievement of the study's objectives (Pandey & Pandey, 2021). I included ACO MSSP participants with a 3-year agreement and no less than 3,300 total assigned beneficiaries. The mixture of MSSP ACO participants included various ACO professionals such as physicians, nurses, and support staff, grouped together by networks, integration, and/or partnerships. The study did not include any insured population outside of the MSSP ACO participants.

Limitations

The time and amount of data utilized and how the data was presented by the participating ACOs in the MSSP are limitations of the study. The data examined in the study included specific performance years versus all available data for the participating

health care organizations. The MSSP was initiated in 2012 and offered two levels of participation: Track 1 and 2. Track 1+ and Track 3 for the MSSP were added in 2016 and 2018, respectively and in 2019, CMS developed a new program framework for MSSP that it refers to as "Pathways to Success" (Muhlestein et al., 2019). Many of the healthcare organizations in the study have participated in the MSSP for years longer than examined in the study.

Further, the data was specific to the populations in MSSP ACOs and not the Medicare all-inclusive population. Therefore, the conclusions on the relationship between the quality score, generated total savings and losses, and total assigned beneficiaries cannot be entirely inclusive of the Medicare population or typical of the overall U.S. healthcare system. Another limitation of the study included all the evolutions associated with Medicare programs. For example, although MSSP was initiated in 2012, it is still a relatively new program that continues to evolve. The proposed rule for the Medicare physician fee schedule (PFS) for the calendar year (CY) 2024 was released by CMS on July 13, 2023 (CMS, 2023). The proposed rule included changes to the MSSP, which would further CMS' value-based care plan to grow, align and promote equity (CMS, 2023). It also addresses concerns voiced by accountable care organizations (ACOs) and other interested parties.

Significance

This study contributed to a better understanding of the possible relationship between total assigned beneficiaries, expenditures per capita, generated total savings/losses and quality score for MSSP ACO participants between 2019 and 2021.

Health care organizations may benefit from a more thorough understanding of how participating ACOs performed in relation to the MSSP's outlined standards for cost reduction and patient outcomes. Further, better understandings should lead to the development of more effective policies and procedures that contribute to favorable outcomes and improved outcomes for patients. For health care organizations to continue to improve their business procedures and uncover crucial relationships between performance measures, it is necessary to continue researching the current and future data available.

Summary and Conclusions

I examined the relationship between total assigned beneficiaries, quality score, generated total savings/losses, and expenditures per capita. The analysis demonstrated the significance of the relationships therefore, identifying how relevant the MSSP arrangement launched under the ACA is for reducing spending, improving quality of care, and health outcomes. Further, it demonstrated whether the MSSP is effective in specific health care organization settings. The organization's structure and how it interacts with the community of participating providers will continue to be the last remaining questions for encapsulating U.S. healthcare and in understanding the benefits of MSSP ACOs. There is a strong case for the longevity of MSSP ACOs in the American healthcare system if they can continue to lower healthcare costs while also improving quality for managed populations. MSSP ACOs have the potential to drastically alter the healthcare system if they can continue their momentum and demonstrate their revolutionary ability in health care delivery.

In Section 1, I provided background of MSSP, the problem statement, purpose of the study, the research questions and related hypotheses, framework of the study, nature of the study, literature review, definitions, assumptions, scope and delimitations, limitations, and the significance of the research. In Section 2 I review the research design and rationale, methodology, threats to validity, and ethical procedures.

Section 2: Research Design and Data Collection

In this quantitative study, I sought to understand the statistically significant relationship between the quality score, generated total savings, generated total losses, total assigned beneficiaries expenditures per capita for the same time period were also examined for MSSP ACO participants from 2019 through 2021. The literature review revealed that MSSP ACOs are a practical choice for health administrators to achieve systemic goals because of their success in reducing associated costs and enhancing quality. The literature study also showed the necessity for additional research into the results of measures for MSSP ACO participants. The major sections of this chapter include research design and rationale, methodology, and threats to validity.

Research Design and Rationale

The study's variables included quality score, generated total savings, generated total losses, expenditures per capita, and total assigned beneficiaries. To address the research questions in the quantitative study, I included bivariate regression and other analysis in the research design to examine how the independent variable effects the dependent variable and correlation to measure for the existence or strength of the relationship between the two variables (Frankfort-Nachmias et al., 2020). When using bivariate regression, one of the two variables is an independent variable, otherwise referred to as an explanatory variable, while the other is the dependent variable also known as the outcome variable, usually referred to as X and Y.

For RQ1, the independent (X) variable is generated total savings while the dependent (Y) variable is quality score. For RQ2, the independent (X) variable is

generated total losses while the dependent (Y) variable is quality score. For RQ3, the independent (X) variable is expenditures per capita, and the dependent (Y) variable is quality score. Finally, for RQ4, the independent (X) variable is total assigned beneficiaries, and the dependent (Y) variable is quality score.

The design choice of the study was associated with both time and resource constraints. The time constraint involved the years of data used. Although data for other years were available, I chose to only analyze data of performance measures from MSSP ACO participants between the years of 2019 and 2021. The limited years of data allowed for data from years not previously studied fully to be better understood of the outcomes and be explored for the existence of relationships. Regarding resource constraints, I only used data from a sole source, which was data available on the CMS website. The use of secondary data from a single source allowed for the study to remain consistent with previous studies conducted utilizing data from the CMS website.

Furthermore, the research design is nonexperimental using secondary data in which the variables in the study were not manipulated. Nonexperimental research is advantageous in that it examines previously occurring events or facts. The research design adaptability allowed for the observation of the wide variety of unusual phenomena involving the existing secondary data for MSSP ACO participants from 2019 through 2021. The research design was connected to the research questions as it allowed for the relationships of the variables identified from the secondary data used, to demonstrate whether the goals of MSSP ACOs were met.

Methodology

Population

The study's population was only comprised of the participants in MSSP ACOs and their corresponding managed beneficiary pool from 2019 to 2021. The 475 participating healthcare organizations from various states with a majority being from the State of Florida, Texas, California, and New York were analyzed. Further, 268 of the healthcare organizations participating have locations in more than one state.

Of the 475 healthcare organizations that were analyzed, 157 were entering their first agreement period, 46 were re-entering, and 272 were entering in a renewal second or subsequent agreement period. Reentering ACOs' agreement period number is established at that time depending on how many agreement periods they had already completed before re-entry. Additionally, for ACOs categorized as renewals, the date marks the beginning of the second or succeeding agreement period while ACOs categorized as re-entering had a date indicating when the current agreement period will begin. 165 participants were in the first year of program, 176 were entering their second year, and 134 entered their third year of their agreement period. One hundred and forty eight of the participants had a current start date of January 1, 2018, 188 had a date of July 1, 2019, and 188 had a start date of January 1, 2020.

There was a reported 90% average quality score and a total earned shared savings of 1.9 billion for the examined period. According to CMS (2021), there were 10,124,325 million Medicare beneficiaries assigned to the participating MSSP ACOs during 2019 through 2021 with the following demographic distribution:

- End Stage Renal Disease (ESRD) – 72,696 (0.72% of total assigned Medicare beneficiaries)
- Disabled – 1,247,999 (12.33% of total assigned Medicare beneficiaries)
- Aged Dual – 717,877 (7.09% of total assigned Medicare beneficiaries)
- Aged Non-Dual – 8,285,304 (81.85% of total assigned Medicare beneficiaries)

Sampling and Sampling Procedures

The MSSP ACO participants' complete performance data for the years 2019 through 2021 made up the study's population. Every year, CMS assesses the performance for all MSSP ACO participants nationwide (CMS, 2024). Additionally, CMS controls each participant's Medicare reimbursement amounts yearly based on performance information. Performance information and reimbursement information is gathered by CMS and kept on the CMS website from 2012 up to the most recent collecting period.

The secondary data is made available to the public through the Data.CMS.gov website. The secondary data set was procured using the search for data option on the CMS website (Search Data.CMS.gov - Centers for Medicare & Medicaid Services Data) (CMS, n.d.-b.). Once “Search” bar populated, a search for “Performance Year Financial and Quality Results” was conducted which returned two results. The first dataset option populated and titled “Performance Year Financial and Quality Results” was selected for the study (CMS, n.d.-c.). This data set covered MSSP (Shared Savings Program) quality, expenditure, benchmark, and shared savings/loss metrics, as well as condensed beneficiary and provider information.

Medicare allows datasets to be downloaded by the public, as an excel spreadsheet, without permission (CMS, 2022a). The excel spreadsheet was exported and it was determined that 475 participating ACOs had association with the variables of interest to be studied. As previously noted, the variables selected for the study were quality score, generated total savings, generated total losses, expenditures per capita, and total assigned beneficiaries. The data for these variables were found in columns “W” (N_AB), “AA” (GenSaveLoss), “AJ” (QualScore), “AP” (ABtopExp), and “BM” (Per_Capita_Exp_TOTAL_PY). For the variables generated total savings and generated total losses, Medicare collects and populates the data in a single column. N_AB references the total assigned beneficiaries, ABtopExp references total expenditures, QualScore references quality score, and Per_Capita_Exp_TOTAL_PY references per capita all expenditures in performance year.

A power analysis was conducted utilizing the G*Power software version 3.1.9.7 to ensure the appropriate sample size was used for the study (see Faul et al., 2009). A priori power analysis entails calculating the necessary sample size for a study using established maximum tolerable Type I and Type II error rates as well as the smallest effect size that would have therapeutically, or theoretically significant implications (Kyonka, 2018). Four predictor variables, a medium effect size ($F_2 = 0.15$), $\alpha = .05$, and an a priori power analysis suggested that 129 MSSP participants would be needed for the study therefore, 475 MSSP participants is more than adequate for the study.

Instrumental and Operationalization of Constructs

I used a published instrument created by the CMS, together with annually published and publicly accessible data on the CMS website. The performance years for the MSSP ACO from 2019 to 2021 were examined. Given that it was used to record the correlation between the variables picked for examination, the instrument was adequate for the study. Permission to access the data set was not required, as the data was a government-supplied file made for public use. If I used the nationally provided data set, the published instrument would produce the same results, demonstrating its reliability. Each year, CMS releases comprehensive datasets that compile the data provided by reporting entities. The fact that the data set cannot anticipate alternative events has led to numerous interested parties disputing the validity of the disclosed instrument however, it is difficult to estimate the true amount that would be spent on CMS enrollees if CMS programs such as MSSP ACOs did not exist (MedPAC, 2019). This instrument has been used in performance years from 2012 through 2018 with comparable demographics, measurements, and interpretation techniques (CMS, 2022a). This instrument will also be employed in upcoming performance years.

Operationalization

The study's variables were all comprised of numerical values. The operational definition determined by CMS was previously provided in the study. As noted, GenSaveLoss refers to the generated total savings and losses. The minimum savings and loss rates are benchmarks that the ACO must meet or exceed to share in savings or be

responsible for shared losses. They are based on percentages of the current historical benchmark for the ACO (CMS, 2022a).

Total saving is the amount of savings rate matched or surpassed by the ACO's MSR (calculated as benchmark minus expenditures, from first to last dollar). This amount does not account for the application of the performance payment ceiling, a reduction due to sequestration, the application of the ACO's final share rate based on quality performance, or the repayment of advance payments (CMS, 2021).

Total losses are the amount for ACOs in two-sided models with loss rates that were equal to or higher than their MLR (calculated as benchmark minus assigned expenditures, from first to last dollar). The application of the ACO's final sharing rate based on quality performance or the loss sharing cap are not taken into consideration in this sum (CMS, 2021).

N_AB is the CMS variable name for total assigned beneficiaries which indicates the total number of beneficiaries assigned for the performance year. According to CMS (2022a), at the start of a performance year, CMS allocates beneficiaries in a preliminary manner for ACOs with retrospective reconciliation based on the most current data available. A list of beneficiaries is prospectively assigned to ACO's using a claims-based assignment from the most recent data available. Beneficiaries are also assigned as a result of voluntary alignment provided to ACOs under the preliminary prospective assignment with retrospective reconciliation close to the beginning of the performance year. Additionally, by entering MyMedicare.gov and selecting the provider or supplier they

feel is in charge of coordinating their overall care, beneficiaries can voluntarily join an ACO at any point throughout the year (CMS, 2022a).

ABtopExp is the abbreviation for total expenditures and references the per capita performance expenditures multiplied by total person years to the overall amount spent. According to CMS (2022a), “ESRD, disabled, aged/dual eligible Medicare and Medicaid beneficiaries, and aged/non-dual eligible Medicare and Medicaid beneficiaries” are the populations for which CMS calculates expenditures for beneficiaries assigned to ACOs each benchmark and performance year separately. Each month, CMS assigns a beneficiary's expenditures to the identified Medicare enrollment type for that month. CMS then adds up all monthly costs associated with that enrollment type for each beneficiary under each Medicare enrollment type. A beneficiary who does not have any months remaining in a given enrollment type will have no expenditures associated with that enrollment type (CMS, 2022a).

QualScore is the CMS variable name for quality score and is based on the appropriate methodology for a performance year. Based on performance year, CMS chooses the quality performance benchmark for ACOs (CMS, 2020). The quality performance standards applied to ACOs during their initial agreement period is different from the standard that is applied during subsequent performance years. In performance year 2020, Using 23 nationally accepted quality metrics across four important domains, CMS assesses the quality of care (CMS, 2020). To note, measuring and evaluating MSSP ACOs on quality in 2021 and subsequent years, CMS finalized significant structural modifications. As a replacement for the CMS Interface, it was changed to an electronic

clinical quality measure (eCQM) reporting and a new set of metrics included in the recently developed APM APP. To better align quality measurement strategies with the MIPS of the QPP, CMS finalized moving forward with these improvements to the MSSP quality evaluations (National Association of ACOS, 2021).

Finally, Per_Capita_Exp_TOTAL_PY refers to the per capita all expenditures in performance years which is defined as the total expenditures per assigned beneficiary for the performance year. This amount is annualized and is a weighted mean (CMS, 2021).

As previously mentioned, the DV for RQ1, RQ2, RQ3, and RQ4 is quality score. The IV for RQ1 is generated total savings while generated total losses are the IV for RQ2. The IV for RQ3 is expenditures per capita and total assigned beneficiaries is the IV for RQ4.

Data Analysis Plan

As previously explained, G*Power was the program utilized for the data's initial analysis. Data analyses and associated powers are computed using the statistical program G*Power. To establish the bare minimum sample size required and address the data set's components that needed to be examined, the researcher first ran a G*Power analysis. The Statistical Package for the Social Sciences (SPSS) from IBM was also used. A statistical program used for interactive analysis is IBM SPSS.

The researcher's data cleaning and screening procedures included the exclusion of duplicate or unrelated observations, fixing structural errors, and filtering unwanted outliers.

The analytical plan covered statistical tests, practices, justifications, and findings interpretation. Bivariate regression was one of the statistical tests used to evaluate the hypotheses, and correlation will be used to determine whether a relationship between the independent and dependent variables exists or is strong. The procedures used to account for the statistical analysis were appropriate because of the four research questions and their differing variables. Both covariates and confounding variables were absent. The SPSS software tool was used to report the results, which provided critical parameter estimates, confidence ranges, probability values, odd ratios, etc.

As previously noted, RQ1 asked, Is there a statistically significant relationship between the Quality Score and Generated Total Savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants? The alternative hypothesis for RQ1 stated there is a statistically significant relationship between the Quality Score and Generated Total Savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants. The null hypothesis for RQ1 is there is no statistically significant relationship between the Quality Score and Generated Total Savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants.

RQ2 asked, Is there a statistically significant relationship between the Quality Score and Generated Total Losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants? The alternative hypothesis for RQ2 stated there is a statistically significant relationship between the Quality Score and Generated Total Losses for 2019 through 2021 Medicare Shared Savings Program

Accountable Care Organization Participants. The null hypothesis for RQ2 stated there is no statistically significant relationship between the Quality Score and Generated Total Losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants.

RQ3 asked, Is there a statistically significant relationship between the Quality Score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants? The alternative hypothesis stated there is a statistically significant relationship between the Quality Score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants. The null hypothesis stated there is no statistically significant relationship between the Quality Score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants.

RQ4 asked, Is there a statistically significant relationship between the Quality Score and Total Assigned Beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants? The alternative hypothesis stated there is a statistically significant relationship between the Quality Score and Total Assigned Beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants. The null hypothesis stated there is no statistically significant relationship between the Quality Score and Total Assigned Beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants.

For RQ1, RQ2, RQ3, and RQ4 the dependent variable was Quality Score. For RQ1, the independent variable was Generated Total Savings while the independent variable for RQ2 was Generated Total Losses. For RQ3, the independent variable was Expenditures per Capita and the independent variable for RQ4 was Total Assigned Beneficiaries.

Threats to Validity

Possible interaction effects and the influences caused by additional arrangements could contribute to the threats of external validity. For example, some MSSP ACO participants might be involved in numerous value-based care efforts, each requiring separate initiatives with several measurement and grading mechanisms. This may perhaps contribute to a misunderstanding in the application of practice protocols, how to manage patient care and delivery of services, and managing the influences of different payers.

Additionally, the management of a patient population provided by a MSSP ACO participant could have diverse implications due to differing approaches in the delivery of care for FFS volume versus value-based care. The goals of healthcare professionals could differ when delivering care or treatment to FFS patients instead of assigned beneficiaries of a MSSP ACO. According to Adida et al. (2016), FFS offers incentives for disproportionate treatment and yields subpar system returns. Therefore, healthcare organizations with providers caring for a mixed population of both FFS and value-based beneficiaries could yield differing results.

The study addressed the external threats of validity by incorporating all types of MSSP ACOs (Physician owned, Hospitals, Integrated Health Systems, and other health

care organizations) into the population, therefore, demonstrating the results could be reproduced across any form of ACO population. By improving generalizability to other settings, populations, and conditions, replications mitigate external threats to validity.

The study's threat to internal validity includes maturation of program participation, attrition biases, and selection biases. As explained earlier, the 475 healthcare organizations analyzed in the study had agreement periods that varied between their first or subsequent agreement periods. Theoretically, the more a provider or organization collaborates with an MSSP ACO, the more sophisticated their strategies will become therefore, a MSSP ACO member may advance at a higher rate than those who are in an earlier agreement period. Groups without comparable characteristics at the beginning of the study and changes in the number of assigned beneficiaries can also be considered a threat to internal validity. The large sample size that was used for the study counters these concerns as results were more susceptible to any outcome variability and less likely to be compromised. This, however, does not apply to research question 2 which has a small sample size of 15. Small sample sizes compromise a study's external and internal validity (Faber & Fonseca, 2014). No threats to the construct or statistical conclusion validity were identified.

Ethical Procedures

The Performance Year information from the CMS MSSP ACO, made public through the CMS website was utilized for this study and did not require a permission request. The study will exclusively take advantage of the precise, in-depth data contained

in the data collection, without using any human volunteers. The researcher does not need any institutional permissions to utilize the dataset, hence none have been requested.

Concerns about ethics in relation to recruitment methods and materials did not apply to individuals or study participants. Each MSSP ACO participant commits to allowing the sharing of the information they report to CMS. This agreement requires the ACO to attest to the veracity, the accuracy of data and information submitted to CMS or requested by CMS, including the participation agreement, application form, and any other information or quality data used by CMS to determine shared savings payments and shared losses (National Archives and Records Administration, 2023). Due to the conditions of the agreement involving provider and CMS, there are no ethical concerns related to data collection from MSSP ACO participants.

The researcher was able to search, identify, and download the dataset from the CMS' federal government source to be used in the analyses. The public file does not contain any personal identification information or information not appropriate for public use. The U.S. Centers for Medicare & Medicaid Services manages and finances a federal government website, therefore, maintains the protection and security of the datasets.

This study had no clear ethical connections that could be understood. The data was available to the researcher free of permission, from the CMS website. Second, the contractual reporting requirements for participating health care entities supersede the issue of privacy and confidentiality.

Summary

This study used a non-experimental, quantitative analytic research approach and secondary data from a publicly available dataset provided by CMS to address the 4 research questions. The investigation's methodology included a systemic evaluation and analysis of the performance years for MSSP ACO members in 2019 and 2021. Section 3 will present the data collection of the secondary data set and results of the study.

Section 3: Presentation of the Results and Findings

In this study, I aimed to investigate the relationship between the quality score and generated total savings and generated total losses for MSSP ACO participants from 2019 through 2021. This sets it apart from previous studies that looked at MSSP ACOs. Furthermore, I investigated the correlation between the quality score and per capita expenditures from 2019 to 2021, as well as the relationship between the quality score and the total number of assigned beneficiaries for MSSP ACO participants during the same period. According to the literature review, MSSP ACOs are a sensible option for health administrators looking to accomplish systemic goals, based on their effectiveness in lowering related costs and improving quality. To permit health care leaders to continue expanding ACOs, it was necessary to conduct this study to ascertain whether MSSP ACOs can enhance quality and reduce costs in relation to allocated beneficiaries and expenditures. Below are the research questions and hypotheses addressed:

RQ1: Is there a statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is generated total savings, DV is quality score, bivariate regression)

*H*₀1: There is a statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

*H*₁1: There is no statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

RQ2: Is there a statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is generated total losses, DV is quality score, bivariate regression)

*H*₀2: There is a statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

*H*₁2: There is no statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

RQ3: Is there a statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is expenditures per capita, DV is quality score, bivariate regression)

*H*₀3: There is a statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

*H*₁₃: There is no statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

RQ4: Is there a statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is total assigned beneficiaries, DV is quality score, bivariate regression)

*H*₀₄: There is a statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

*H*₁₄: There is no statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

If an ACO's savings rate was the same as or lower than their MLR, their gross savings are referred to as the generated total savings (CMS, 2022a). Generated total losses are, on the other hand, for ACOs in two-sided models whose MLR was either equal to or greater than their losses rate. ACOs who only participate in the Track 1 option are not subject to generated total losses and instead are only able to receive generated total savings in their initial agreement period. The quality score of an ACO for a performance year is calculated based on applicable methodology. Participating ACOs are mandated to report information of specific performance measures which are used to

calculate the overall quality scores of the organization using established benchmarks (CMS, 2022a).

Data Collection of Secondary Data Set

The following section, I review the process for data collection of the secondary data set I used and discuss the results of the study. I used a nonexperimental, quantitative analytic research approach and secondary data from a publicly available dataset provided by CMS to address the four research questions. The investigation's methodology included bivariate regression in efforts to determine the strength of the relationships between the independent variable and dependent variable.

The data used for the study was gathered from Performance Year Financial and Quality Results - Centers for Medicare & Medicaid Services Data. The secondary data incorporated the 2019–2021 MSSP ACO performance years and involved the 475 MSSP ACO participants. Due to CMS providing open access to their data, there was no need to solicit or manage responses from MSSP ACO participants. The variables examined in the study included generated total savings and generated total losses which was identified as GenSaveLoss. Medicare accumulates and displays the data as a single variable. I, however, separated the losses from the savings to examine the difference in association between the two and quality score. Total assigned beneficiaries, noted as N_AB. To determine the relationship between quality and expenditures, two different expenditures were examined. Total expenditures was noted as ABtopExp while Per_Capita_Exp_TOTAL_PY is regarded as per capita all expenditures in performance year.

The Results

The results consisted of descriptive statistics and related data for the five variables included in the analysis of the four research questions. The mean or average quality score for the 475 organizations in the total population was 0.90 or 90%. For the variables associated with expenditures, the average total expenditures were \$230,910,489 while the average per capita all expenditures in performance year were \$11,290. Medicare reports generated savings/losses as a single measure which the average of the combined single measure was \$7,672,597. To understand the relationship between quality score and savings versus losses, the two were separated for the study. The average for generated losses was -\$3,606,709 for the 15 organizations associated with losses. The average for generated savings was \$8,040,400 for the 274 organizations that experienced savings. Of the 475, 186 participants experienced \$0 generated savings/losses. The average total assigned beneficiaries for the 475 organizations was 21,314. The table below displays the results mentioned above.

Table 2

Averages of Variables

Variable	Variable type	Average	N
Quality score	Dependent	90% or 0.90	475
Total expenditures	Independent	\$230,910,489	475
Per capita	Independent	\$11,290	475
Generated loss	Independent	(\$3,606,709)	15
Generated savings	Independent	\$8,040,400	274
No generated savings/loss	Independent	N/A	186
Total assigned beneficiaries	Independent	21,314	475

The mode or data point that most frequently occurred for quality score was 100% with approximately 8.8% of the participants receiving 100% in quality score. Mode was not calculated for any other variable.

The first analysis I conducted using SPSS was regarding bivariate correlation to measure for strength and direction of the relationship between the two variables. Table 3 shows the results.

Table 3

Results from Bivariate Regression Analysis

Research question	<i>F</i> -value	Significance	<i>N</i>
RQ1	11.763	<0.001	460
RQ2	1.808	0.202	15
RQ3			
Part 1	3.783	0.052	475
Part 2	48.38	<0.001	475
RQ4	7.848	0.005	475

Table 3 displays the results from the bivariate regression analysis conducted utilizing SPSS. The significant value of the *F*-value for RQ1 is 11.768 with a significance of <0.001 indicating a statistically significant relation between the two variables. RQ3 Part 2 (*F*-value of 48.38) also had a significance of <0.001 also indicating a statistically significant relation. RQ4 are equal to or less than 0.05 therefore, suggesting there is a statistically significant association between the dependent variable and the independent variables. The significant value for RQ3 Part 1 is slightly over 0.05 however, when rounded, can be said to be equal to 0.05. Therefore, indicating a statistically significant relationship. RQ2 has a significant value much greater than 0.05 which indicates that the independent variable's impact on the dependent variable cannot be concluded.

The next analysis I conducted using SPSS was regarding Pearson correlation to measure the linear relationship between the variables in the study. Table 4 displays the results of each the analysis.

Table 4

Results from Pearson Correlation Analysis

Research question	Pearson correlation	Sig. (2-tailed)	N
RQ1	0.158	<0.001	460
RQ2	-0.349	0.202	15
RQ3			
Part 1	0.089	0.052	475
Part 2	-0.305	<0.001	475
RQ4	0.128	0.005	475

The results showed a positive linear relationship between quality score and generated total savings for 2019 through 2021 MSSP ACO participants ($r=0.158$, $p<0.001$). The value of Pearson's r is equal to 0.158, which indicated a weak relationship.

The results also indicated a negative linear relationship between quality score and generated total losses for 2019 through 2021 MSSP ACO participants ($r=-0.349$, $p=0.202$). The value of Pearson's r is equal to -0.349, which indicated a moderately strong relationship. The results also show that the generated total losses increased.

For research question 3, two variables were tested to better understand how expenditures impacted quality score. For Total Expenditures (ABtopExp) as the independent variable (Part 1), the results showed a positive linear relationship ($r=0.089$, $p=0.052$). Pearson's r was equal to 0.089, which indicated a weak relationship. For part 2 or per capita all expenditures in performance year (Per_Capita_Exp_TOTAL_PY), the results showed a negative correlation ($r=-0.305$, $p<0.001$). Pearson's r was equal to -0.305, which indicated a moderately strong relationship.

The results showed a positive linear relationship between Quality Score and Total Assigned Beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants ($r = 0.128$, $p = 0.005$). The value of Pearson's r was equal to 0.128, which indicated a weak relationship. The results also showed that the Total Assigned Beneficiaries increase as the Quality Score increases.

Summary

In short, the findings demonstrated statistically significant relationships existed between the independent and dependent variables. Research question one and its hypotheses asked:

RQ1: Is there a statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is generated total savings, DV is quality score, bivariate regression)

H_0 1: There is a statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

H_1 1: There is no statistically significant relationship between the quality score and generated total savings for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

The bivariate regression and Pearson Correlation demonstrated a statistically significant relationship exists between Quality Score and Generated Total Savings. Further, based on the sign of the Beta calculated, the relationship between Generated

Total Savings and Quality Score was a direct relationship in that as one increases, so does the other. Therefore, the true hypothesis was demonstrated to be the alternative hypothesis, which was accepted while the null hypothesis was rejected.

The results from analysis conducted for research question 2 presented some issues. Research question 2 and its hypotheses stated the following:

RQ2: Is there a statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is generated total losses, DV is quality score, bivariate regression)

H₀2: There is a statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

H₁2: There is no statistically significant relationship between the quality score and generated total losses for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

The bivariate regression found an issue with the small sample size. An inadequate sample size could result in a statistically nonsignificant result, which could create a Type 2 or false negative error (Andrade, 2020). The null hypothesis was rejected however, the small sample created complications with the outcomes. It is not possible to conclude about the variable's influence on the dependent variable because RQ2 has a significant value that is significantly larger than 0.05. It was found however, that a statistically significant relationship exists between the two variables therefore, the null hypothesis

was rejected. Additionally, it also determined the relationship was inverse. As the generated total losses decrease, the quality score increases while as the losses increase, quality score decreases. It is expected that as participants receive high quality scores, they receive less generated total losses.

For research question 3 and the associated hypotheses:

RQ3: Is there a statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is expenditures per capita, DV is quality score, bivariate regression)

H₀3: There is a statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

H₁3: There is no statistically significant relationship between the quality score and expenditures per capita for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

The bivariate regression found two different relationships existed between the three variables tested. The bivariate regression found both total expenditures and per capita all expenditures in performance year had a statistically significant relationship with quality score therefore, the null hypothesis was rejected. However, each variable demonstrated a different relationship with quality score. The results for total expenditures found that as the amount increased, the quality scores also increased, meaning the relationship between these two variables was direct. On the other hand, the relationship

for per capita all expenditures in performance year and quality score were inverse in that as per capita all expenditures in performance year increased, the quality scores decreased.

Finally, research question 4 examined the following:

RQ4: Is there a statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants? (IV is total assigned beneficiaries, DV is quality score, bivariate regression)

H₀4: There is a statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

H₁4: There is no statistically significant relationship between the quality score and total assigned beneficiaries for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization participants.

The bivariate regression determined a statistically significant relationship existed between the several of the variables therefore, the null hypothesis was rejected, and the alternate was true. In addition, the relationship between the two variables was found to be direct meaning, as the total assigned beneficiaries increase, the quality score increases as well.

Overall, the results found from the bivariate regression demonstrated the purpose of the MSSP ACOs was achieved for 2019 through 2021 Medicare Shared Savings Program Accountable Care Organization Participants. Further interpretation of the results will be provided in Section 4. Additionally, Section 4 will examine the goal of the

doctoral research study and key findings, the limitations of the study, offer recommendations for further research, discuss implications for professional practice and social change and provide a conclusion.

Section 4: Application to Professional Practice and Implications for Social Change

The purpose of this study was to identify the relationship between the quality score and generated total savings and generated total losses for MSSP ACO participants from 2019 through 2021. Furthermore, I scrutinized the relationship between the quality score and expenditures per capita between 2019 through 2021 as well as the relationship between the quality score and total assigned beneficiaries.

I found statistically significant relationships existed between the independent variables and the dependent variable, quality score for MSSP ACO participants between 2019 through 2021. While quality score had a direct relationship with generated total savings, total expenditures, and total assigned beneficiaries, an inverse relationship was found to exist between quality score, per capita all expenditures in performance year, and total generated losses.

This study was conducted to further understand how MSSP ACOs has influenced both costs and quality in healthcare. As detailed in the literature review, ACOs serve as a strategic means by which U.S. health organizations can accomplish systemic goals (Wilson et al., 2020). Additionally, it is suggested that increased participation in the program results in positive outcomes, the federal government may realize significant cost savings, and participants will undoubtedly receive higher-quality treatment (Pittman, 2021). Therefore, to fully understand the implications and benefits of MSSP ACOs, a study had to be conducted.

Interpretation of the Findings

The Donabedian model of structure-process-outcome aligned with the principles underlying the study. I focused the study on evaluating whether MSSP ACOs are accomplishing their purpose. As indicated earlier, MSSP ACOs are designed to combine a network of physicians, hospitals, and other healthcare providers that work together to offer Medicare beneficiaries with coordinated, high-quality care (CMS, 2018). Their main goal is to provide patients with the needed care at the right time while eliminating errors in diagnosis and treatment (CMS, 2022b). The results demonstrated the Donabedian model was appropriate. For example, Figure 1 presented in Section 1 of the study showed the relationship between the Donabedian model and MSSP. The “structure” characteristic of the model aligned with the provider’s capacity or total assigned beneficiaries, “process” aligned with integrated, service delivery, and in/out patient care or expense per capita, generated total savings, and generated total losses while “outcome” aligned with quality of care or quality score. Overall, each characteristic of the Donabedian model and their associated variables directly correlate with each other, therefore, demonstrating why the framework is appropriate.

Further, the findings extend the knowledge in the discipline in comparison to what was discussed in section one of the study regarding MSSP ACOs. In the literature review, several studies had conflicting results on the outcomes experienced by participants of ACOs however, design of MSSP ACOs were not a focal point. In this study however, I was found that ACOs are appropriately designed to lower the cost of care and improve health outcomes. For example, the relationships between quality score

and generated total losses, based on how MSSP ACOs are designed, as expected. As previously mentioned, I found the two were inversely related. As quality score increased, the generated total losses decreased, and as the quality score decreases, the generated total losses increase.

The importance of the relationship identified between quality score and generated total savings is also worth mentioning. As already discussed, the relationship between generated total savings and quality score was direct, meaning that as one increases, the other does as well. As expected, the direct relationship between these two variables aligns itself with the purpose of MSSP ACOs. As participating organizations experience high quality scores, they should theoretically yield higher total savings.

Limitations of the Study

The study's limitations include the data, analysis, and population group used. As previously mentioned, the analysis was conducted on 475 healthcare organizations from different states. Moreover, 268 of the participating healthcare organizations in the study had locations throughout many states. Therefore, instead of representing the Medicare all-inclusive population, the data was unique to the populations within MSSP ACOs in specific locations. Additionally, only 15 of the 475 healthcare organizations experienced generated total losses. When analyzing the generated total losses, the limited number of participants cannot create a generalization of the results and associated relationships.

Another limitation of the study included the multiple versions associated with the Medicare programs. The healthcare organizations analyzed in the study had various

renewal periods, entry dates, and agreement periods. This resulted in different experiences and knowledge of the successes and failures within the program.

As previously mentioned in this study, the influences brought about by healthcare organizations having additional arrangements and potential interaction with other incentivizing programs may create concerns for validity. However, the data provided by CMS does not include any considerations for other arrangements therefore, removing all concerns with validity is not possible. It is however, important to note that the variables analyzed in this study were not new variables measured by CMS instead, they have been reported by participants since 2103 therefore, increasing the opportunity for extensive review and increased reliability.

Recommendations

In this study, I examined quality score, generated total savings, generated total losses, expenditures per capita and, total assigned beneficiaries between the performance years 2019 through 2021. However, it is important to understand how the program has continued to contribute to the progress to date. A recommendation for future research is a need for understanding the relationship between the same variables since the creation of the MSSP. This would allow for a better understanding of current benchmarking and methodologies and if they align with the purpose of the program. Further, it could aid in understanding if these variables continue to produce statistically significant measurements.

Additionally, improvements to MSSP ACOs continue to be made by CMS. According to Hut (2024), CMS implemented changes going into 2024, which included

changes to beneficiary assignment procedures, quality-related standards, improvements to advance payments and, the benchmarking technique. Future research should evaluate how these changes have impacted the outcomes associated with MSSP ACOs.

Implications for Professional Practice and Social Change

As evident in the literature review, there is a significant need to change current healthcare practices. Multiple initiatives have been presented throughout the years to include MSSP ACOs (Callaghan et al., 2020). This study may provide professional healthcare leadership with valuable evidence on MSSP ACOs and how it may be a chance for accomplishing the necessary improvements in healthcare delivery and support societal changes.

Professional Practice

The results of this study showed the existence of statistically significant relationships between quality score and generated total savings, generated total losses, expenditures per capita and total assigned beneficiaries for MSSP ACO participants for the years between 2019 and 2021. The outcome of this study can provide healthcare leadership and professionals with a better understanding of the MSSP ACOs and supports the possibility of improving the delivery of healthcare services. Based on the positive results yielded, there is an opportunity for healthcare leadership to improve their organization's delivery model.

Based on the statistically significance found between the variables, it is safe to suggest there are no empirical implications. Instead, the results point toward quality score as a predictor of generated total savings, generated total losses, expenditures per capita

and total assigned beneficiaries. Further, they suggest the design and purpose of the MSSP ACOs is being met by the population pool analyzed in the study.

From a methodological perspective, the implications were based on a quantitative examination of numerous performance years for MSSP ACO participants, which was carried out using secondary data in a non-experimental research approach. The study included well defined dependent and independent variables organized to answer specific research questions and hypotheses. Theoretically, the study was aligned with the Donabedian model of structure-process-outcome. This allowed me to demonstrate how the structuring of MSSP ACOs and the processes established to deliver coordinated care have paved the desirable outcomes for MSSP ACO participants.

Social Change

As explained by Barr (2023), compared to other nations, the United States spends the most on health care and still the current society's health and access to care is poor. This study provides healthcare leadership with valuable information to drive necessary organizational changes to the delivery of healthcare services. Further, understanding MSSP ACOs is critical to the success of value-based care and its potential to drive associated healthcare costs down and improve quality in the U.S. healthcare system. If MSSP ACOs can decrease healthcare costs while improving the quality of care and outcomes, organizations should consider adopting these processes to meet the healthcare needs of those they serve.

Conclusion

In conclusion, in this quantitative study I reviewed the available literature on MSSP ACOS and applied secondary data to address four research questions. The statistics were based on publicly available data from the federal agency CMS for the MSSP ACO performance years of 2019–2021. My objective was to establish if MSSP ACOs are a viable option to lower healthcare costs and improve quality of care for those serving the Medicare population.

The data analysis returned findings that statistically significant relationships exist between quality score and generated total savings, generated total losses, expenditures per capita and total assigned beneficiaries for MSSP ACO participants for the years between 2019 and 2021. Quality score is a predictor of generated total savings, generated total losses, expenditures per capita and total assigned beneficiaries. More importantly, this study demonstrates MSSP ACOs lend themselves to be a strong option for leadership to reduce associated healthcare costs and improve quality in the U.S. healthcare system. Future studies aimed at examining these variables from the initiation of the MSSP to present and the most recent changes to the MSSP are necessary to further validate MSSP ACOs as a sustainable alternative for the delivery of healthcare services.

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