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Accountable Care Organization Success Strategies: The Importance of System Changes

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This is to certify that the doctoral study by

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Abstract

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MS, Finch University, Chicago Medical School, 1997

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Accountable care organizations (ACOs) are a new health care reform initiative that has been highlighted as one of the most important organizational structures that could lead to quality improvements and cost savings in the United States through shared savings. The inability of health care managers to successfully implement ACOs could result in financial losses, reduced patient access to health care, and poor patient outcomes. Grounded by von Bertanlaffy's general systems theory, the purpose of this multiple case study was to explore the system change strategies health care managers used to implement an ACO to meet ACO quality and cost standards. Health care managers from Arizona, New York, and Wisconsin who successfully implemented ACO system change strategies in their organizations comprised the population for this study. Data were collected through face-to-face semistructured interviews with 9 health care managers. Data were analyzed using methodological triangulation, thematic analysis, and Yin's 5 analytic techniques to identify patterns and themes. Three main themes resulted from the data analysis and included leaders with system change strategies improved successful ACO implementation, leaders who implemented health information technology improved successful ACO implementation, and leaders with care management system change strategies improved successful ACO implementation. The application of the findings from this study may contribute to positive social change because health care managers may use these system change strategies to successfully implement ACOs to improve patient care and access and reduce the financial burden of health care costs throughout the United States.

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Dedication

I would like to dedicate this study to the clinical and non-clinical professionals navigating through today's health care environment and continually striving to improve the well-being of patients. Specifically, I want to dedicate this study to the participants who were so gracious to share precious time and lessons learned. You lead by example through not only conquering the business acumen aspects of health care but through your ethics and having a sincere desire to make the life of the patients you serve better and more meaningful. I hope the findings from your experiences strengthen the ability of other health care managers to spread your knowledge and success and ultimately improve the physical, mental, and social being of patients across the United States.

Acknowledgments

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I want to acknowledge colleagues for their continued support and sacrifice. I would like to thank my employer, Rex Budde, for allowing me the precious gift of time to complete assignments, travel for interviews, and hours spent writing. To my colleague, Nancy Woolard, who endured my daily ranting of timelines and the extensive literature searches.

Finally, I could not have finished this journey without the love and support of my family and friends. To my father, who is no longer with us but remains in my heart and who showed me the importance of hard work and how to put humor in all things. To my mother, now in a nursing home, who taught me to always believe and to never give up my educational journey. To Lisa Hawkins, who was my rock throughout this endeavor, always keeping me grounded and reminded there is light at the end of the tunnel.

Table of Contents

Section 1: Foundation of the Study

To assist in reducing health care costs in the United States, the Center for Medicare and Medicaid (CMS) leaders designed the ACO incentive based program to reward participants with financial gains for good performances on cost and quality standards, as well as monetary penalties for falling below the required standards (McClellan, 2015). The success and sustainability of the ACO program depends upon incentivizing provider payments based on value instead of the traditional volume, and from health care payers to health care providers (Pham, Cohen, & Conway, 2014). The purpose of this study was to explore system change strategies health care managers used to successfully implement an ACO. Participants included successful health care managers from three of the top performing ACOs, located in Arizona, New York, and Wisconsin. The study was conducted through face-to-face interviews using semistructured, open-ended questions with nine health care managers. Health care managers may benefit from this study by learning strategies of successful ACO professionals; thereby, improving their own ACO success and sustainability probabilities. As a result, a great opportunity remains to expand the spotlight of research on the challenges and nuances of ACO implementation (Addicott & Shortell, 2014).

Background of the Problem

CMS established the 5-year pilot Pioneer ACO to promote collaboration among voluntary physicians and other health care service providers to reduce spending and improve the quality of care provided to patients with Medicare in the United States (Government Accountability Office [GAO], 2015). The Pioneer ACO demonstrated a

learning foundation for future ACO leaders collaborating with government and private payers while aligning provider incentives, improving quality, and decreasing costs for the ACO participants (CMS, 2016). Although the Pioneer ACO members experienced advances in quality and patient satisfaction while generating $87.6 million in total savings, 66% of the 32 participants sustained losses, and nine left the program by 2013 (Toussaint, Milstein, & Shortell, 2013). Eight ACO participants remained at the end of the program in December 2016 (CMS, 2017).

Some Pioneer ACOs experienced financial losses after successfully implementing system changes to meet the ACO standards (Toussaint et al., 2013). Toussaint et al. asserted that Bellin Healthcare, a leading ACO located in Wisconsin, experienced a net profit decrease of 3.6% from reducing readmissions. Nyweide et al. (2015) stressed critical long-term success strategies for ACO health care managers, which hinged upon effective program design and structure. The results of this study could have the potential to enhance the understanding of health care managers to understand and implement system change strategies to improve quality and reduce or avoid organizational financial loss and to build sustainable systems when implementing ACOs.

Problem Statement

During the 2012 to 2016 ACO pilot, 66% of the 32 Pioneer ACOs in the United States incurred a financial loss (GAO, 2018). Researchers from CMS predict future ACO managers who do not meet the quality and cost standards could incur a 5% to 10% organizational financial loss (CMS, 2016a). The general business problem is health care managers risk an organizational financial loss if performance measures do not meet

performance standards. The specific business problem is some health care managers lack system change strategies to meet ACO quality and cost standards.

Purpose Statement

The purpose of this qualitative multiple case study was to explore what system change strategies successful health care managers used to meet ACO quality and cost standards. The specific population was health care managers from ACOs located in Arizona, New York, and Wisconsin. The implications for positive social change include improved health care for patients in the United States through better access, increased quality, and lower costs.

Nature of the Study

According to Campbell (2014), the qualitative methodology is appropriate when the researcher is seeking to understand the participants' experiences using interactive methods in gathering data through open-ended questions. Therefore, the qualitative methodology was appropriately selected for this study as the research was conducted through face-to-face interviews using semistructured, open-ended questions to explore the lived experiences of health care managers who successfully implemented an ACO. Palinkas et al. (2015) stated the qualitative method is not appropriate if the research involves testing hypotheses about relationships or differences among variables. Because the research for this study did not include hypotheses or data analysis of specific variables, the quantitative method was not selected. Mixed methodology was not appropriate for this study, as according to Watkins (2012), a mixed-method approach requires the use of the quantitative research method.

I considered several optional research designs for this study. The phenomenological design was not appropriate because this study did not involve a focus on the analysis of the meanings of experiences as they were lived by the participants (Ojala et al., 2015), or extensive fieldwork and direct observations (DeFelice & Janesick, 2015). Grounded theory was not selected because the goal was not to generate a theory from systematic research (Watkins, 2012). I did not choose ethnography as this I did not focus on a cultural interactions or norms of people (Lopex-Dicastillo & Belintxon, 2014). Manley, Martin, Jackson, and Wright (2016) explained that the case study design is used to examine a common phenomenon within cultures and environments with a focus on answering what, how, and why questions. The use of the case study design was appropriate as it provided a foundation for me to explore the various contexts of what successful system change strategies health care managers used to meet the ACO quality and cost standards.

Research Question

The primary research question for this study was: what system change strategies did successful health care managers use to meet the ACO quality and cost standards?

Interview Questions

1. What system change strategies did you use to meet ACO quality standards?
2. How have you assessed the effectiveness of the system change strategies used to meet the ACO quality standards?
3. What challenges did you experience in meeting ACO quality standards, and how did you address those challenges?

4. What else would you like to share about meeting ACO quality standards?
5. What system change strategies did you adopt that met ACO cost standards?
6. How have you assessed the effectiveness of the system change strategies used to meet the ACO cost standards?
7. What challenges did you experience in meeting ACO cost standards, and how did you address those challenges?
8. What else would you like to share about meeting ACO cost standards?

Conceptual Framework

The conceptual framework I selected for this qualitative multiple case study was the general systems theory (GST). According to Rousseau (2015), developing GST to improve humanity was considered the underlying goal of the International Society for the Systems Sciences (ISSS), previously known as the Society for the Advancement of General Systems Theory and the Society for General Systems Research (SGSR). Von Bertalanffy introduced GST in 1948 as a framework to promote system versus silo thinking amongst all researchers, regardless of the researcher's scientific background and specialty (Rousseau, 2015). Von Bertalanffy (1972) suggested the concepts of *wholeness, directiveness,* and *differentiation* are essential variables of primary systems and are directly aligned and a part of a larger system. The importance of the GST theory of wholeness was grounded on the importance of not studying simply the systems within a system, but rather ensuring consideration of how each of each individual system collectively affects the whole system (Von Bertalanffy, 1972). Further, according to Von Bertalanffy, each system may directly affect another system or the whole system, and

how components within the system are similar and different are important components to understanding system theory.

Building upon Von Bertalanffy's GST theory, Luke and Stamatakis (2012) surmised complex systems drive health care services and systems theory would be appropriate and beneficial when studying health care challenges. Luke and Stamatakis also found the field of complex systems methods catalyzes the collection and analysis of large volumes of data for improving systems' performance and the incorporation of the dynamics of how social networks, system boundaries, and individual behavior interactions frame health care policy and practice. The extended system theories helped me comprehend and apply GST to analyze how health care organizations provided quality services to compete in the industry. The responses and themes retrieved from the participants' interviews may assist health care managers by gaining a deeper understanding of fruitful and unsuccessful practices related to system change strategies used to meet ACO quality and cost standards.

Operational Definitions

Accountable Care Act (*ACA):* ACA is an acronym for the Patient and Affordable Care Act of 2010. The United States government representatives created the Affordable Care Act to improve health care quality and to reduce costs (U.S. Department of Health and Human Services [HHS], 2013).

Accountable Care Organization (ACO): A government approved payment model wherein ACO leaders are responsible for coordinated care of a select patient population by multiple health care providers (CMS, 2017a).

Advanced Payment Model: A U.S. government payment designed to assist physician-based and rural providers up-front capital to invest in their care coordination infrastructure (CMS, 2017b).

Consumers Assessment of Healthcare Providers and Systems (CAHPS): A system designed to create, implement, administer and rate a patient care health experiences in the United States (Thiels, et al., 2016).

Health Insurance Portability Accountability Act (HIPAA): An Act designed to guard the privacy and security of health information and empower individuals with appropriate access to their health information (CMS, 2016b).

Medicare Shared Savings Program (MSSP): A program created under Section 3022 of the ACA. MSSP was created to enhance the working relationships among health care providers to improve the quality of care and reduce costs for Medicare Fee-For-Service (FFS) recipients (CMS, 2017c).

Pioneer ACOs: A CMS Innovation Center initiative designed to support organizations with experience operating as ACOs or in similar arrangements in providing more coordinated care to beneficiaries at a lower cost to Medicare (CMS, 2017a).

Physician Quality Reporting System (PQRS): A CMS program created to encourage individual eligible providers and group practices to report quality of care information to Medicare to achieve optimal payment adjustments and reimbursements (Phillips, 2017).

Value-Based Purchasing (VBP): A CMS ongoing initiative to reward acute-care hospitals with incentive payments for the quality of health care provided to Medicare patients (Ryan, Krinsky, Maurer, & Dimick, 2017).

Assumptions, Limitations, and Delimitations

Assumptions

I considered several assumptions for this study. Grant (2014) described assumptions as responses from a researcher's participants accurately reflecting a lived experience. In alignment with Grant's description, the first assumption was that that all participants would be honest in their responses and therefore provide insight into their lived experiences. Another assumption was that all participants were experts and knowledgeable of the system changes health care managers may need to implement to achieve ACO standards. Because the purpose of this study was to explore system change strategies that were necessary to successfully implement an ACO, I also assumed that system changes are required for ACO health care managers to improve organizational productivity, efficiency, and performance. Finally, I assumed participant guidance depended on the selection of the key participants within the organization for data collection.

Limitations

Soilkki, Cassim, and Karodia (2014) stated that limitations are weaknesses of the study that the researcher cannot directly control. One limitation for this study was my employment in the health care industry for over 30 years, and established beliefs that had the potential of bias and influencing the study analysis. My role as a senior leader in the

health care industry had a minimal effect on the data collection due to limited interaction with most interviewees, although the possibility of influence from my interaction during participant interviews remained plausible. Because the participants were employees of the ACOs in the population, bias may be attributable to their responses. The participants may not have answered questions truthfully in fear of revealing negative information about their employer, even after the review of confidentiality. The health care managers may have responded to their personal experiences and knowledge without consulting with other staff. Another limitation was the participants' responses and results might be attributable to the geographical area, patient population, and how much managed care exists in their market.

Delimitations

Delimitations are required to define the span of the research (Rovai, Baker, & Ponton, 2014). The delimitation was that data collection was limited to three ACOs due to travel costs and time. I narrowed the selection of health care managers as the interviewees, rather than the ACO providers or other team members.

Significance of the Study

The information from this proposed study could be of value to health care managers who are exploring system change strategies to meet ACO quality and cost standards. ACO health care managers are challenged to create and improve system change strategies to improve the quality of services and lower costs (Stanowski, Simpson, & White, 2015). My literature review supported the study aim of identifying system

change strategies that could better position health care managers in addressing the future ramifications of health care reform and improve performance.

Contribution to Business Practice

Health care managers could use the results from this study to contribute to improving business practices by guiding health care managers seeking to understand what system change strategies can enhance organizational performance in addressing ACO quality and cost standards. Health care managers' inability to take the necessary action to create and modify system change strategies to meet ACO standards is a critical gap in practice for the health care industry. The expertise may be required to take advantage of health care reform opportunities, achieve a competitive edge in the industry, and ensure business continuity.

Implications for Social Change

The potential implications for positive social change include important strategies that health care managers can use to meet ACO quality and cost standards. The results of this study could provide context to understanding how health care managers could change systems within a new paradigm of health care reform by stimulating the development of cost-effective, quality-oriented models of patient care. Researchers may use the results of this study to increase the focus on the potential benefits by simultaneously increasing the quality of health care and reducing the costs of health care to patients and their families.

A Review of the Professional and Academic Literature

The literature review begins with a description of the contents organization of the review, followed by an analysis of the strategies I used when searching the literature on

this topic. I conducted most searches for the literature review through the Walden Library digital databases. The most commonly used databases included Thoreau, ProQuest, SAGE Publications, and MEDLINE. I selected the peer-reviewed option before performing searches. Frequently used search terms included *Accountable Care Organization, Pioneer ACO, value-based purchasing, general system change theory*, *health information technology,* or a combination of these terms. Using the search terms yielded results about specific themes explored: *successful ACO strategies, ACO challenges, ACO organizational structures,* and *ACO leader and provider experiences involving ACO quality and cost measure performance.* Using broader search terms such as *health care reform, pay for performance,* and *system theories* was useful. Broadening search key terms helped to find relevant information for the literature review.

The literature review consists of approximately 189 references from peer-reviewed journals, books, and government sources that are less than five years old (2014 to 2018). Eighty-five percent of the 221 total sources are peer reviewed, with a minimum of 60 different peer reviewed sources. I will begin this literature review by describing the selected conceptual framework and will then compare and contrast the conceptual frameworks to other popular theories that could apply to this topic. Following the conceptual framework is a description of the CMS ACO program and related attributes, followed by challenges and lessons learned from system change strategies used by health care managers to meet the ACO quality and cost standards.

Critical Analysis of the Conceptual Framework

The purpose of this qualitative multiple case study was to explore what system change strategies health care managers used to meet ACO quality and cost standards. After reviewing several conceptual framework options, I selected the GST for the conceptual framework of this study. Current literature indicated GST could assist health care managers in gaining an in-depth understanding of how to optimize successful system change strategies to produce desired ACO quality and cost performance results.

General Systems Theory (GST)

The founder of the GST provided a meaningful framework for this qualitative study. Von Bertalanffy (1968) introduced GST in the 1940s, stating that by taking the stance the GST applied to all sciences concerned with systems and defining GST as a general science of wholeness. Von Bertalanffy (2008) developed the theory in response to previous research founded on the study of isolated parts of a system, particularly in the fields of physics and biology, rather than looking at the relationship among individual systems as a whole. Von Bertalanffy (1968) posited that the researcher who uses GST as a tool yields positive results through continuous improvement based on the feedback of results from the performance of the system as a whole, rather than isolated systems within the system.

Boulding (1956) furthered Von Bertalanffy's research by suggesting there are nine levels of organizing GST, which progressed the complexity of the system at each level. The nine levels included structures and frameworks, clockworks, control mechanisms, open systems, genetic-societal systems, animals, humans, sociocultural

systems, and transcendental systems and range from repeatable systems to systems of philosophy and religion (Wilby, 2006). Zenko, Rosi, Mulej, Mlakar, and Mulej (2013) offered Matjaz Mulej, a cybernetics researcher, further expanded the GST with the development of the Dialectical Systems Theory (DST) in 1976. According to Zenko, et al., Mulej became frustrated with the GST because he did not see the holism or consideration of everything pertinent when researchers were drawing conclusions. Further, Zenko, et al. expressed the GST was not pertinent to all industries, resulting in a lack of wholeness of diversity and consideration of all relevant system variables. Given these traits and the controversy among researchers, Zenko et al. opined that is it not possible for humans to be completely holistic in their approach to solving problems.

Mangal (2013) furthered systems thinking by stating that self-organization, hierarchy, and resilience are primary characteristics of systems. Mangal defined the system as a group of elements arranged within a particular design allowing interaction among each other and resulting in efficiency, rendering the wholeness of a system. The author used systems theory analysis to evaluate the Facebook social media tool. The study results showed discrepancies existed in the participant survey results as the participant answers were based on personal use rather than thinking from the systems theory perspective. Mangal asserted the results supported the argument that discrepancies within an analysis using general systems thinking presents significant implications for how to diversify the range of systems-to-real comparisons.

Recent GST research. Recent research has indicated additional in-depth analysis of systems thinking. Specifically aligned to this study, Caws (2015) suggested

systems thinking could be a viable theoretical option for ACO health care managers. According to Caws, system thinking researchers imply systems are independently functioning entities, and there are other sub-systems or structures that may produce results based on individual behavior. Caws opined that managers using system thinking may have a high organizational success possibility by offering opportunities for health care managers to evaluate and improve system change strategies when implementing ACOs.

Health care managers may benefit from systems thinking given the complexity of the ACO organizational structure and expanding partnership requirements (Caws, 2015). Sturmberg, Martin, and Katerndahl (2014) further opined health care leaders had experienced a heightened awareness of the criticality of network relationship, self-governance, and the urgency to understand organizational performance and health care managers and practitioners experienced the fallouts and constraints of system interventions in meeting these demands. System and complexity sciences are crucial conceptual frameworks that may help guide and support health care industry leaders as a transformational tool to align individual challenges with those of the larger health care system (Sturmberg, et al., 2014).

To further the argument that systems thinking is pertinent to health care managers, Bode and Wagner (2015) conducted an empirical study on supply chain management with a goal of answering what upstream supply chain system characteristics increased the frequency of supply chain disruptions by buying firms. Bode and Wagner stated that three upstream, structural supply-chain complexity dimensions (horizontal,

vertical, and spatial) enhanced the risk of disruption. According to Bode and Wagner, the system involved a linear relationship between vertical complexity and the number of disruptions for local firms and revealed a higher volume of suppliers as a direct influence on the increased number of interruptions. The study findings indicated the importance of not only lateral relationships in systems but illustrated how linear relationships may shape cause and effect attributes of larger systems.

One example of health care system leaders who used system thinking was the legislators of the Kansas Legislative Health Academy. Blacksher et al. (2015) described these congressional members' responsibility for the public health policies in Kansas, with a charter to enhance the skill set of the members in health policy ethics, systems thinking, and civic leadership. The members improved their ability to think of health-related issues and policies as a system or set of systems through training that included studying historical behaviors over long periods of time and focusing improvements of the system's inadequacies (Blacksher et al., 2015). The authors showed the importance of having a structure and vision in place to support system thinking was a crucial element of success.

The theory of systems thinking was also a research topic in public health services. Through observational and quasi-experimental research methods Mays and Scutchfield (2015), researchers in the field of public health services and systems research (PHSSR), studied the drivers and adverse outcomes of variation in the public health delivery systems. The researchers found the use of systems thinking aided in providing a detailed understanding of the activities used by public health service leaders that lead to harmful, wasteful, and inequitable variations in the patient population served. According to Mays

and Scutchfield, the leaders of the public health agencies and their partners used the PHSSR study results to develop action planning to drive improvements in health policy related to economics, research, quality improvement and accreditation, and gaps in the ability of the managers to meet the ACA requirements and mandates. Mays and Scutchfield argued the ability of the public health system leadership to be successful depended on the leaders' capacity to be open to evaluating and analyzing complex systems that contributed to the preventative health of broader patient populations. Thus, another component of a health care manager's ability to successfully implementation ACOs is a culture of willingness to be innovative and receptive to change at all levels of the organization and within the industry.

Health care leaders have demonstrated the benefits of systems thinking, not only on a local level but at a national level as well. The Institute of Medicine (IOM), United States Preventative Services Task Force (USPSTF), and national health care organizations used systems thinking approaches to develop screening and counseling for intimate partner violence (IPV) in the United States (Miller, McCaw, Humphreys, & Mitchell, 2015). Particular areas included system-based protocols for identification and interventions, electronic health records (EHRs), and various collaborations and partnerships within the health care system's community and the environment.

Kaiser Permanente (KP) developed the systems model approach to engage the wholeness of its health care environment (Miller et al., 2015). Miller et al. (2015) found that by using systems model approach, the leaders of KP achieved an eight-fold improvement in IPV identification between 2002 and 2013. Miller et al. asserted the

critical systems integral to KP leaders' success and sustainability included laws and regulations, health care system economics, health care providers, and their patients.

On an international level, and in an attempt to improve health care delivery in Zambia, designers of the Better Health Outcomes through Mentoring and Assessment (BHOMA) found systems thinking critical to the proposed interventions, having a positive effect on the population served. Mutale, Balabanova, Chintu, Mwanamwenge, and Ayles (2016) used a stepped wedge randomized cluster trial to develop the BHOMA model consisting of three key strategies of the district, health facility, and community. Mutale et al. (2016) found that health care leaders were successful using systems thinking in tobacco cessation, obesity, and tuberculosis programs but not in higher-level, complex health care delivery services. The scholars asserted the use of systems thinking could be the backbone to discovering innovative and effective tools in health care delivery systems. Several different areas were shown to benefit from systems thinking, including service delivery, workforce, health information, medical products and technologies, financing, and governance (Mutale et al., 2016). The findings demonstrate that system thinking can be used in different modalities of the health care system.

Leaders implementing an ACO have not only focused on improving the quality of care but on reducing the cost of health care. Through a review of peer-reviewed literature and technology websites, Tillman et al. (2015) found a continued emphasis on reducing health care costs, presenting challenges in the ability to fully understand the complexity of non-communicable diseases. By incorporating a *Systems Medicine* thought process, health care managers better grasped the underlying causes of noncommunicable diseases,

enhanced personalized medicine, and were successful in developing actions that may prevent and treat noncommunicable diseases (Tillman et al., 2015). The researchers stated that incorporating larger sets of concurrent data shared among researchers, patients, and providers may create a deeper understanding of timely performance, resulting in improved and efficient action planning. However, a constraint to this theory remains with the challenge of retrieving valid concurrent data. An extended systems framework, the theory of constraints (TOC), is a supporting theoretical framework to GST. Eliyahu Goldratt, a physicist, introduced the TOC in 1970 as a method for manufacturing production scheduling (Goldratt, 1999). According to Goldratt, the key to gaining system optimization lies within the organizational management's ability to manage and overcome the restraint challenges.

The TOC is based on principals defined in Goldratt's structure of *The Goal* that highlighted global system-wide measures instead of specific system or location measures, supporting the philosophy that for the whole system to achieve its goal, the specific systems within the system must be in sync and be working towards a common goal (Goldratt, 1999). Goldratt defined five steps for organizational managers to utilize when confronted with restraint challenges by

- identifying the constraints of the system;
- decision-making on how to employ resources;
- limiting the effect of restraints;
- continuous evaluation of the system constraints; and
- re-evaluating the system if steps one to four a constraint breaks.

Additionally, Goldratt developed *The TOC Thinking Processes* as a set of tools to address cause and effect analyses and action planning around behaviors while creating fixes to system problems. In 2004, Taylor and Churchwell furthered TOC by asserting the process provided a framework for managing system constraints, specifically by identifying what to change, how to select a solution, and how to successfully implement the solution. Other tools to compliment this approach were offered.

Pergher, Brandolf, Vaccaro, and Pacheco (2016) asserted the use of the TOC thinking process, along with a Failure Modes Effect Analysis (FMEA), allowed the researchers to identify the root cause of system challenges within a cancer health care service system. Pergher et al. showed that using these multiple approaches in conjunction assists managers in efforts to reduce and eliminate failures in the health care delivery system. The researchers' approach further helped managers identify and prioritize the root causes in managing patients while expanding systems thinking theory in the health care industry.

The use of system thinking theory has expanded to the operational and behavioral aspects of health care. Oreskovic, Huang, and Moon (2015) opined that health care managers are gaining an interest in using systems science to establish a theoretical framework that drives system change strategies related to workforce behaviors and complex relationship techniques, particularly when targeting the reduction of resources and costs for patients with chronic health conditions. Per Oreskovic et al., the systems approach could result in several fundamental behavioral-change techniques including feedback, ownership, collaboration, competition, accountability, and rewards and provide

clear direction on what system or systems to focus attention on to produce the desired results.

The GST theory is appropriate for this study as the context of the central research question and interview questions are directed at system change strategies. System thinking is critical for health care managers to survive in the modern world (Broks, 2016). Through this study, I demonstrated that the application of GST may assist the ACO health care manager to expand their acknowledgment and acceptance that systems intertwine with other systems to make the whole system. Furthermore, I provided additional evidence that utilizing the foundation of systems theory for systems thinking may greatly enhance their ability to resolve challenges faced by the modern-day health care industry. To further argue that GST is an appropriate theoretical framework, I considered four other potential theories but determined they were not as effective or appropriate for this study. The four alternative theories included institutional theory, transaction cost economics (TCE) theory, organizational learning theory, and high-reliability organization (HRO) theory.

Alternative Conceptual Theories

Shortell (2016) opined four alternative theories that health care managers may consider utilizing to improve ACO results. The four theories included institutional theory, TCE theory, HRO theory, and organizational learning theory (Shortell, 2016). Shortell offered that these four alternative organization theories could be useful to ACO managers by supporting the learning of how to create and implement ACOs. In contrast to the GST system, Thayer (1972) posited the GST researchers ignore individualized

needs of organizations through its hierarchy theory, and that incorporating human characteristics is more productive than GST.

Institutional theory. I considered institutional theory for this study. The theory stems from the organization's reputation, particularly related to socialism and system-level values and principles that project the behavior of the organization's employees (Beckfield, Bambra, Eikemo, Huijts, & Mcnamara (2015); Goodrick & Reay, 2016). Goodrick and Reay (2016) opined the ACO manager's success depends upon relationships among the leaders and physicians, state, and markets in which the ACO provides service, rather than systems. Health care managers may need to determine which relationships should be integrated, which relationships should function independently, and which relationships should perform within both aspects at some level. Goodrick and Reay further asserted that institutional theory supports and encourages ACO managers to empower frontline staff and learn from other industries, particularly as it relates to regulatory changes and demands. I did not select the institutional theory because this study focused on system change strategies, rather than relationships or workforce empowerment.

TCE theory. The TCE theory did not align with this study. According to Mick and Shay (2016), TCE was founded by Coase in 1937, developed further by Williamson in 1971, 1975, and 1985, and brought to researchers' attention by Ouchi in 1977 and 1980. Mick and Shay defined TCE as organizational diversity that attributes to the organization's boundaries and markets, with a particular focus on nonproductive costs. In regards to ACO implementation and per Mike and Shay, TCE theory refers to the level

of cost efficiency and vertical integration of services, particularly if services are internal to the ACO system, developed through external partnerships, or a combination of both models. Mick and Shay concluded that it might be useful for ACO managers to utilize TCE to understand and monitor internal administrative costs related to managing the challenging and complex systems required to meet the ACO quality and cost standards. Although this theory indicates a systems thinking component, the crux of the theory is focused on costs and therefore was not appropriate for this research.

Organizational learning theory. Abernathy and Wayne introduced the organizational learning theory arose through a study conducted in 1974 (Nembhard & Tucker, 2016). The authors focused the study on organizational cost efficiency, particularly related to a product, equipment and technology costs, tasks and system characteristics and structure, volume, material costs, and labor costs. Conversely, Nembhard and Tucker (2016) posited that managers who followed a strict cost containment practice reduced innovative abilities resulting in dramatic adverse effects on the company's long-term success.

Collaboration and coordination with internal and external partners, accepting and adhering to a new payment model, and a higher level of patient engagement are three ACO characteristics that imply ACO managers may benefit from using the organizational learning theory (Nembhard & Tucker, 2016). Seven strategies were offered to achieve ACO success and included the development of a leadership-driven philosophy of accepting changes as a learning experience through a team-based structure, grounded on safety and continuous improvement. I considered the organizational learning theory as

cultural and behavioral aspects of ACO managers may be pertinent to this study. However, I did not select the theory as there did not appear to be a direct connection to system change strategies.

HRO theory. The HRO theory is often aligned to industries that provide highly complex and risky services, wherein even a small error may have severe consequences (Clements, 2017). Clements (2017) opined hard wiring an organizational high reliable culture is critical for health care managers to raise the standard of patient safety. More specifically, Vogus and Singer (2016) argued studying high reliable organizations (HROs) could provide valuable learning for ACO health care managers. Clements defined five principles that are required for organizations to achieve high reliability by

- operational sensitivity;
- reluctance to minimize a problem or concern ;
- obsession with failure;
- acknowledgement of the importance of subject matter experts; and
- resiliency.

Padgett, J., Gossett, K., Mayer, R., Chien, W., & Turner, F. (2017) opined that organizational leaders moving to a HRO model contributes to reduced patient incidents, improved staff perceptions of their contribution to the organization, and reduced costs linked to unsafe care. Padgett, et al. further opined preventable patient harm continues despite rigorous and ever-changing health care regulations. Finally, the authors emphasized the continued need for education and training, communication, and teamwork for organizations to achieve high reliability and improve patient safety.

Shortell (2016) opined that all four alternative conceptual theories are limited to internal organizational systems, micro, and meso issues; therefore, recognizing the theories are limited in their usefulness to ACO health care managers. The author further acknowledged successful ACO leaders are forced to confront system issues that are both internal and external and are complex through various forms of demands that require sophisticated integration. Thus, although the four alternative theories may be useful for ACO health care managers seeking to develop innovative capability or improve organizational culture and leadership, the theories are limited in positively effecting successful ACO system change strategies.

Contrasting Reviews

Human characteristics. The literature review indicated one significant contrasting review of the GST theoretical framework. Kast and Rosenzweig (1972) asserted managers who use the GST and view the organization as an open or closed system could miss important effects of how systems interact with one another and as a whole. Systems are either partially open or partially closed, and without employing this view, managers may miss the opportunity to identify internal and social matters could hinder successful organizational strategies. Further, Kasty and Rosenzweig opined GST implies systems indicate predictable behaviors but that systems are created by humans and therefore do not always behave in an expected pattern. Several examples of the managers' abilities to develop and implement targeted individual strategies for planning, organizing, and controlling but failure to see the wholeness and overlap of the sub-systems were provided.

Kast and Rosenzweig (1972) posited managers tend to assert systems thinking but typically focus on the system or systems directly affecting their role in the organization rather than all of the systems affecting organizational performance. According to Kast and Rosenzweig, there are three levels of systems that successful managers must consider, the organization's environment, social organization, and subsystems within the organization. Kast and Rosenzweig were hesitant to support the GST, expressing additional research is necessary for researchers and organizational leaders to fully understand and benefit from the use of GST in organizational success. The authors' research provided evidence that directly contrasted with the purpose of this study. The aim of this study is system change strategies within the ACO program selected by the organizational leaders, rather than behavioral aspects of systems thinking. Health care managers who have used the GST indicated the theoretical framework served as a solid conceptual theory for health care managers in selecting the appropriate ACO, as well as implementing successful system change strategies to meet the ACO quality and cost standards.

CMS ACO Programs Defined

Many health care leaders are seeking knowledge to determine if an ACO is appropriate for their organizations and, if so, which ones. Although the Pioneer ACO health care managers offered lessons learned, CMS legislators are not taking new registrants. However, for this study, it was important to provide the history and outcomes of the Pioneer ACO program.

Pioneer ACO model. Ganguli and Ferris (2018) declared the present health care system provides an inappropriate level of care that is not coordinated and expensive and that the current fee-for-service model is the cause of many of the current problems. To address these concerns, the Pioneer ACO pilot was established by CMS to rapidly improve patient outcomes and lower costs of the ACO members over a 5-year period (McClellan, 2015). The goal of the 2012 to 2016 Pioneer ACO participants was to set up an alternative payment track alongside fee for service (FFS) payments through a collaboration amongst clinicians, hospitals, and other health care delivery participants to receive increased reimbursement based on performance against the quality and cost standards (McClellan, 2015).

McWilliams, Chernew, Landon, and Schwartz (2015) found through a difference-in-differences analysis of Medicare FFS claims between Pioneer ACOs (after 2012) and other patients (2009 to 2011), the ACO efforts resulted in a 1.2% savings or $87.6 million, resulting in small reductions in Medicare spending the first year of the pilot Pioneer ACO. McWilliams et al. found the savings were noticeably higher for ACOs with baseline benchmarks above the local median, in comparison to those with baseline spending below the local average. The researchers included ACOs financially linked with hospitals and provider groups and those without, and in ACOs that exited the Pioneer ACO as well as those that remained in their study.

All 32 Medicare Pioneer ACOs improved quality and satisfaction standards, and the pilot generated total savings of $87.6 million in the first year (Toussaint et al., 2013). The researchers found that by 2013, twelve of the 32 ACOs lacked in significant cost

savings, nine exited with seven joining other ACO programs, and two quit all ACO endeavors. At the end of the Pioneer ACO pilot (December 2016), eight of the original 32 participants remained in the program (CMS, 2018a). In addition to an increase of service offerings in lower cost settings, financial reductions were a direct result of reduced hospital and post-acute care services (McWilliams et al., 2015). The results indicated the first year of performance did not result in a decrease in readmissions, hospitalizations for outpatient surgical patients, or preventive mammograms. The research indicated some of the additional expenses aligned with a narrow margin of increase in preventive diabetic care attributable to the Pioneer ACO program.

Nyweide et al. (2015) conducted a study to compare the 32 Pioneer ACO patients to like-patients in the same geographical areas. The results indicated the 2012 and 2013 ACO patients experienced a reduction in per-patient spending of $35.62 in 2012 and $11.18 in 2013, with a total savings for the program resulting in $280 million in 2012 and $105 million in 2013. Most of the savings directly attributed to inpatient, provider services, emergency care, and post-acute services. Likewise, Sachs, Yu, Nauka, and Schriger (2017) found that more than half of the emergency room patient volume (moderate-to-low acuity visits) was physician driven and could be improved through ACO intiatives. In support of this finding, Nyweide et al. found the first two years of the Pioneer ACO showed lower increases in total Medicare costs and slight reductions in utilization of health services.

Marmor and Sullivan (2015) claimed the savings asserted by CMS was misleading by focusing on Medicare reduction while neglecting to include the CMS

program costs. According to the authors, the ACOs improved Medicare expenditure by 0.5% while the incentive payments provided in the first year by CMS to the ACOs increased Medicare spending by 0.7%, leaving a net financial loss of - 0.2%. These lessons indicated continuous improvement for the ACOs was needed and set the stage for future ACOs models (CMS, 2018a). CMS is now offering two other options, the Medicare Shared Savings Program (MSSP) and the Next Generation ACO Model (CMS, 2018b). Each ACO program has unique offerings and attributes.

MSSP. Section 3022 of the ACA created the MSSP ACO as a health care reform effort (CMS, 2017c). The program was specifically designed to enhance voluntary collaboration among providers to improve the quality of care and reduce costs for Medicare FFS patients (CMS, 2017c). Through implementing an ACO, providers, hospitals, and suppliers qualify to participate (CMS, 2017c). Participants receive monetary rewards by achieving three specific goals of better care for individuals, better health for populations, and lowering growth in expenditures (CMS, 2017c). The ACO must meet established benchmarks on 33 quality measures in four domains while documenting proof of utilizing evidence-based medicine and reducing costs (Nembhard & Tucker, 2016). In 2014, the MSSPs generated a net savings of $287 million to Medicare (McWilliams, 2016).

D'Aunno, Broffman, Sparer, and Kumar (2018) found from a study of sixteen ACOs participating in 2012 a number of variables that benefited the higher performing ACOs. These included: (a) hospital alignment; (b) effective physician practices prior to becoming an ACO; (c) respected physician leaders who were already focused on quality;

(d) advanced HIT; (e) regular physician feedback; and (f) an established and integrated care coordination program. McWilliams, Hatfield, Chernew, Landon, and Schwartz (2016) found for MSSPs participating from 2009 to 2014, cost savings were higher for the 2014 bonus payments, indicating the MSSP model may favor a positive framework for future health care reform initiatives. McWilliams opined that the 95% of MSSP leaders who selected shared-savings contracts without downside had better savings than those who did not. McWilliams found the research results showed that hospital and physician alignment was not necessary to receive the financial surplus. The original MSSP leaders found implementation a challenge, which lead to the establishment of the Pioneer ACO pilot with the goal of accelerating ACO progress on a national level (CMS, 2018a).

Next generation ACO model. The Next Generation ACO model was established based on the historical lessons of the Pioneer ACO model and the MSSPs (Brody, 2018). The Next Generation model is designed to provide willing, experienced patient population management ACO participants predictable benchmarks and an enhanced ability to collaborate to sustain and reduce costs and produce the highest level of quality patient care (Brody, 2018). For 2018, it is estimated there will be 43 Next Generation ACOs (Brody, 2018). The Next Generation ACO model was designed as a three year pilot and was created in response to criticisms of the challenges experienced by leaders during the five year Pioneer ACO pilot (Casalino & Bishop, 2015). The Next Generation ACO model is designed to enhance participants' financial gains through improved patient engagement and care management processes improve the quality of care and reduce costs

for Medicare fee-for-service (FFS) patients (Casalino & Bishop, 2015). The Next Generation ACO program started in 2016, with the benchmark for the first three years of the program based on 2014 baseline quality and cost performance data (Casalino & Bishop, 2015). Understanding the differences in the ACO attributes is vital in supporting the health care managers in the selection of the appropriate ACO model.

Attributes of ACOs. The previous value-based programs served as a foundation for the ACO programs. Specific federal programs focused on paying for performance began with the Hospital Value-Based Purchasing Program in the fiscal year 2013 (Stanowski et al., 2015). Since its inception, the measures and programs have grown and altered with various focuses on patient experience, quality outcomes, and cost efficiency of care processes (Berwick & Hackbarth, 2012). Individual state legislators and payers have begun piloting health care payment and delivery reforms for eligible ACO participants, although eligibility requirements may vary (Rodin & Silow-Carroll, 2013).

Eligible ACO participants. Many health care professionals are eligible participants for the ACO program that encompasses different available partnerships and collaborations. ACO eligible providers and suppliers include physicians and non-physician providers in group practices, networks or solo practices of ACO providers, partnerships or joint ventures between hospitals and ACO providers, hospitals employed ACO professionals, or other designated Medicare providers and suppliers (CMS, 2016c). Eligible critical access hospitals, federally qualified health centers, and rural health clinics are also eligible to be ACO participants, based on the ability to offer primary care

services (CMS, 2016c). Medicare, non-primary care service organizations do not qualify because of the inability to assign ACO patients (CMS, 2016c).

Each ACO institution participant must have 5,000 patients that are Medicare FFS patients and have a governing body, complete self-assessments, monitoring, and reporting of its patient care delivery system (CMS, 2016c). Auditing requirements include analysis of claims data, financial, and quality data on a quarterly and annual basis, site visits, and patient surveys (CMS, 2016c). For those ACO leaders who choose to participate under a two-sided performance-based risk model, claims may continue to be paid under the traditional FFS methodology, but may also receive an incentive or a penalty based on their performance compared to a pre-established benchmark and performance on quality standards, with a requirement that some measures be publicly reported (CMS, 2016c).

Three program tracks are available for ACO leaders to select, based on their level of comfort with risk-taking and experience (CMS, 2016c). The design of Track 1 allows ACO leaders to participate in a shared-savings-only agreement for the first and second year, with an option of continuing for the second year (CMS, 2016c). Track 2 and 3 allow ACO leaders to share savings and losses for the agreement period (two-sided) in exchange for a higher percentage of savings generated by the ACO if the ACO quality and cost standards are met (CMS, 2016c). Selecting appropriate system change strategies has been shown to be critical for health care managers to be successful in attaining the shared savings.

System Change Strategies used to meet ACO Quality Standards

Patients. Patients offer a unique contribution to the implementation of successful ACOs. Using the conceptual framework of open-system thinking, Hilligoss, McAlearney, and Song (2017a) conducted a multiple case study of five ACOs and revealed four categories contributed to patient choices that affect the performance of an ACO. Hilligoss et al. offered the five categories included access, interactions, health system complexity, the quality of care provided by the ACO-provider and the non-ACO provider, and uncertainty of the effectiveness of the ACO. Several boundary-spanning practices, defined by Thompson in 1967, as recurring activities targeted at improving an organization's protection from, influence over, or knowledge of its environment were offered.

The boundary-spanning practices identified to assist ACO managers in addressing patient choice included enhancing access of health care services to the underserved communities, expand health and community partners, and adding new providers (Hilligoss et al., 2017a). The authors suggested increasing the frequency of patient contact, improving inefficiencies, and the quality of interactions with patients may improve communication with patients. According to the researchers, leaders using system complexity strategies directly aim towards improving coordination among system components, managing referrals, and developing a care management system to remove barriers for patients with complex, high-needs. They further offered to aid in addressing the patient's uncertainty about the effectiveness of the ACO, ACO leaders should improve their ability to provide patient education as well as developing and implementing

a system to closely monitor high-risk patients to allow for early intervention. The patient education was found to be an important tool for personalizing and empowering patients.

Chen, Mullins, Novak, and Thomas (2016) proposed the personalized patient activation and empowerment (P-PAE) framework. The P-PAE was designed to assist providers in engaging patients to take an active role in their health care and treatment. Chen et al. asserted some of the challenges to successfully implementing a P-PAE is an organization's lack of having systems established to address the fragmented health care delivery system, continuity of care system, and the government's system of paying for quality over volume. According to the authors, the success of ACOs depends upon integration that is dependent on the active and ongoing role of the patients in their health care and their relationships with their providers, especially physicians.

Physician engagement. Many authors have opined that physicians' involvement in ACO strategies is necessary for success and sustainment. Richards, Smith, Graves, Buntin, and Resnick (2018) opined whether ACOs effect contracting strategies amongst unaffiliated physicians and insurers and whether ACOs lead to greater formal integration remains a critical unknown for providers. Lewis, Fisher, and Colla (2017a) found providers who are required to care for both ACO and non-ACO patients struggle with managing both programs and that system redesigns that reduce costs for ACO patients also reduce the reimbursement from fee-for-service patients, potentially effecting the physician's personal income.

Some authors opined the population focus of the new health care reform payment system hinders a physician's obligation to individual patients (Tilburt & Brody, 2018).

Other researchers argued primary care physicians (PCPs) play a vital role in a patient's engagement through self-care and behavior changes that leads to the need for the PCPs to gain stronger partnering skills (Alvarez, Greene, Hibbard, & Overton, 2016). To support this theory, Carmen, Greene, Hibbard, and Overton (2016) conducted a cross-sectional analysis involving 181 PCPs of the Minnesota Pioneer ACO Fairview Health System, located in Minnesota, to determine if the ACO system changes were effective. The specific purpose of the study was to determine if the PCPs' self-management support behaviors affected the patient's involvement in their care. The researchers found a direct correlation with the implementation of the ACO leadership strategies, patient engagement, and outcomes to the PCP's active involvement with implementing initiatives to change patient behaviors.

In contrast to the study of Alvarez et al. (2016), a retrospective cohort study by Herrel, Ayanian, Hawken, and Miller (2017) was designed to evaluate the correlation between primary care focus and health care utilization and spending for participants enrolled in the first year of the MSSP ACO. The study results indicated ACOs with a higher PCP aim used more hospital services, therefore indicating primary care strategies did not result in lower utilization of health care services, nor did these ACOs achieve greater savings than ACO leaders with a lower focus on primary care. With some similarity, other authors have offered alternative strategies to assist health care leaders in being successful in ACO implementation.

Greene, Hibbard, Alvarez, and Overton (2016) conducted a mixed methods study using 7,144 of Fairview Health Services Pioneer ACO patients and interviews with ten

clinicians with the highest scores and ten clinicians with the lowest scores. Greene et al. found varying strategies, but five key techniques used by the higher performing clinicians to support positive patient behavior changes through

- patient ownership;
- patient partnering;
- taking small steps;
- frequent follow-up visits; and
- the clinician's expressed affection and engagement with the patient.

Using financial incentives is another strategy that health care managers have used to improve system change strategies and related outcomes with mixed results. Hibbard, Greene, Sacks, and Overton (2015) conducted a mixed methods study on how compensating PCPs for the quality of care performance affects the effort of the providers to encourage patient activation and self-management. The researchers found these attributes were the lowest scoring, with only 10% responding positively to implementing a focus on these areas. According to Hibbard et al. (2015), the top response from responders was increasing productivity and seeing more patients, with less than a quarter of the respondents replying they would prioritize patient satisfaction efforts. When Hibbard et al. conducted the same survey a year later, only 15% of the providers responded they had enhanced their efforts to encourage self-management.

Overall, Hibbard et al. (2015) found results from 2012 to 2013 were not remarkable and reflected the financial incentive was not a motivator for the providers. The researchers found that the interviews with individual providers revealed some

providers felt the focus on quality improvement measures decreased meaningful time with their patients, was simply a documentation game, and was not always in the patient's best interest. Hibbard et al. concluded the providers expressed frustration that patient behaviors set their salaries, and the incentive program was complex and difficult to interpret. Although Huber, Shortell, and Rodriguez (2017) found ACO participants were more successful in care management system change strategies because of the resource investment in HIT, another frustration expressed by providers was their ability to understand quality measure data and results through current health information technology (HIT) infrastructures. Several authors opined that the HIT system providers use to determine clinical and quality outcomes proved a major obstacle.

Through interviews with three original Pioneer ACO leaders from Eastern Main Healthcare Systems (EMHS), HealthCare Partners Medical Group California, and Franciscan Alliance, HIT and physician leadership in planning, creating, and sustaining were found to be two central concepts in implementing an ACO (Apple, 2013). Apple (2013) opined the Pioneer ACO leaders offer critical insight. Apple expressed the importance of recognizing the HIT system may not solve every problem, may be an on-going effort, and the need to identify resource gaps early while acknowledging there are difficulties in finding qualified HIT experts. Another area of focus that may be dependent on the HIT system is provider profiling.

Some health care managers judged provider performance through provider profiling systems. Pelletier et al. (2014) asserted the health care industry envisions physician profiling as a tool for promoting health care outcomes by analyzing individual

physician performance. The researchers concluded the development of these models presented challenges because of small sample sizes, incomplete data, and physician panel differences. In February 2015, the leaders of the American Association for Physician Leaders conducted a physician leadership poll (Physician Leadership Journal, 2015). According to the Physician Leadership Journal authors, the survey revealed doctors felt their organizations are taking steps but were far from being ready. The researchers' results indicated the Medicare value-based payment program was another mandate with no clear path forward for physicians. The participating physicians were confident their organizational leaders could take steps to meet the goals but could not be sure United States Department of Health and Human Services (HHS) could manage or track the data correctly (Physician Leadership Journal, 2015). Peter Angood, M.D., President and CEO of the American Association for Physician Leadership, stated the move to value-based care is here and agrees the HHS goals are challenging (Physician Leadership Journal). Dr. Angood further expressed the key to implementing a successful ACO was to find accurate and equitable quality measures and to ensure physician engagement.

To enhance the transformation to measuring quality, CMS implemented the Physician Quality Reporting System (PQRS). Koltov and Damle (2014) described the PQRS is an incentive and penalty payment program for eligible providers to report data on quality measures and afforded the opportunity for qualified professionals to assess the quality of care and compared results to peer performance on a national level. Koltov and Damle opined that historically multiple national stakeholders created the measures and that the measures changed yearly and vary by specialty and included care coordination,

patient safety and engagement, clinical process of effectiveness, and population health. The authors found the mandates lead to extreme challenges for individual physicians to perform at an accelerated rate on various selected evidence-based clinical measures. Moreover, Butcher (2015) furthered the discussion by opining past literature indicated a wide variety of results on whether physicians view these efforts have improved clinical patient care and associated costs

Clinical. Leaders should give considerable thought to the selection of quality measurements, design the metrics to span across all payers to be manageable, and ensure data is transparent and readily available. Addicott and Shortell (2014) opined that another significant consideration of leaders should be what system is used to prioritize measures for improvement and source consumption. Nyweide et al. (2015) further asserted one of the ACO leaders' data challenges directly related to the ACO measures was the low response rate (52.8%) of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey, noting no information was available about the non-responding patient population, partly due to HIT challenges. Some of these challenges once again linked to the HIT challenges.

HIT. A major struggle for ACO health care managers is the balance of cost over quality decisions, particularly in the selection of sufficient analytical and technology assessment capability. Trosman et al. (2017) asserted the leadership goal of a Pioneer ACO HIT system is to produce meaningful measures across multiple patient populations that lead to ultimate care outcomes. Although health information exchange is a critical success component to health care systems, there is insufficient federal policy or

regulation that provides guidance on how best to accomplish this daunting task (Vest & Kash, 2016), and it remains the most significant ACO start-up expenditure (Apple, 2013). Several federal initiatives have driven these costs. Vest and Kash (2016) emphasized resources focused on community patient population health is more advantageous to an ACO's incentive than the current meaningful use (MU) requirements to create an EHR within a health care organization.

The 2009 Health Information Technology for Economic and Clinical Health (HITECH) Act had a sole focus on getting U.S. physicians on an electronic health record (EHR) platform through the implementation of the MU measures. Using thirteen years of data gathered from the National Ambulatory Medicare Care Survey (NAMCS), Mennemeyer, Mecachemi, Rahurkar, and Ford (2016) found the HITECH Act resulted in mixed results, with only 90% of physicians projected to meet compliance by 2017. Adler-Milstein et al. (2015) conducted a study using data from the 2008-2014 American Hospital Association (AHA) Annual Survey of Hospitals-IT Supplement and found only 75% of U. S. hospitals now have at least a basic EHR system (Adler-Milstein et al., 2015). The leaders who implemented either a Pioneer or MSSP ACO showed significant improvement in the ACO electronic health record incentive payment, increasing from 77% in 2013 to 81% in 2014 but struggled with balancing the implementation costs (Walker, Mora, & McAlearney, 2016).

Only one-third of the ACO hospitals have the HIT resources to identify and track readmissions, one of the 33 required ACO quality measures (Mora & Walker, 2016). Additionally, the authors opined HIT systems that result in informed seamless care and

enable leaders and clinicians to retrieve new complex data sets for measurement and performance purposes may be required to meet the ACO standards of care coordination and the management of patient populations. Walker et al. (2016) further opined the characteristics of the HIT system include the ability to identify and follow patients across ACO and non-ACO health care settings to gather and analyze data reflecting over-utilization of services and cost. Lastly, Walker et al. stressed an additional reason for organizational leaders to establish a robust HIT system is the effect it could have on patient loyalty driven by their ability to access records and other health-related information. Providers practicing in the ambulatory setting experienced similar challenges.

A study conducted by King, Patel, Jamoom, and DesRoches (2016) using data from the 2012 NAMCS found 16% of physicians belonged to an ACO or Patient-Centered Medical Home (PCMH). The researchers' study showed EHR utilization by 18% of the ACO or PCMH physicians and 38% of physicians not using an EHR. Further, King et al. found physicians who had an EHR and participated in an ACO or PCMH were more likely to improve the quality of care outcomes including the management of patient populations, quality improvement measures, patient communication, and care coordination processes. Selection of the appropriate HIT product and related systems plays a major role in the leaders' success in attaining the desired results.

Leaders of a successful ACO should include a detailed analysis and strategic plan around HIT scope, capabilities, and effectiveness. Fisher, Shortell, Kreindler, Van

Critters, and Larson (2012) opined that the analysis should include the integration data from registries, medical records, and claims data, and produce both concurrent and outcome measures. The authors explained leaders should organize data by payer and insurances at a local, state, and federal level and focus on the health care service deliverables.

Chukmaitov, Harless, Bazzoli, Carretta, and Siangphoe (2015) conducted a study using a panel study design based on 2006 to 2009 Florida state data. The purpose of the study conducted was to analyze the differences between delivery system characteristics and ACO competencies, with a focus on IT. According to the authors, the HIT systems were designed by organizational leaders to watch metrics, evaluate community needs, and conduct analysis and reporting of quality outcomes showed proven improvements in quality and care and costs containments but is still lacking and may require additional time to mature. Other ACO leaders have had similar experiences (Chukmaitov et al., 2015).

Beth Israel Deaconess Care Organization (BIDCO), a health care delivery system affiliated with Harvard University, was one of the original 32 Pioneer ACOs that managed over $1 billion in risk contracts, ended the fifth year as the top quality of care performer (CMS, 2018a). Halamka (2014) asserted one of the reasons for BIDCO leaders' success was the sophistication of the organization's HIT or big data. The author found the BIDCO leaders organized their data for clinicians to be able to coordinate care and to gather and analyze data for enhancement priorities for population health, quality measures, and care management.

The leaders' goal for the BIDCO Pioneer ACO was to achieve measures to reflect the continuous wellness of patients instead of episodic treatments (Halamka, 2014). Halamka (2014) opined the goal changed the HIT system of BIDCO by requiring clinical decision support staff to design programs to collect information from various HIT databases. The author further found that the data abstraction directed provider action planning by measuring the continuity of care for the patient, including care provided outside of the ACO, while enabling the leaders and clinicians to do predictive modeling and disease patterns analyses. Studying lessons learned by the early Pioneer ACO participants may be beneficial for health care managers.

Pioneer ACO leaders offered critical insight. Through interviews with three original Pioneer ACO leaders from Eastern Main Healthcare Systems (EMHS), HealthCare Partners Medical Group California, and Franciscan Alliance, HIT and physician leadership in planning, creating, and sustaining were found to be two central concepts in implementing an ACO (Apple, 2013). The researcher further expressed the importance of recognizing the HIT system may not solve every problem, may be an on-going effort, and the need to identify resource gaps early while acknowledging there are difficulties in finding qualified HIT experts.

Effectiveness of System Change Strategies Used to Meet ACO Quality Standards

Patients. Patients play a significant role in health care managers successfully implementing an ACO. Knox, Rodriguez, and Shortell (2016) suggested the patients' engagement, experience, and satisfaction affect how well managers can meet the ACO quality standards. Under the ACO regulations, patients are free to seek care at the health

care organization of their choice (McMahon, Tipirneni, & Chorpra, 2016). Researchers at CMS found of the 806,258 patients attributed to the Pioneer ACOs, only 499,880 (62%) were patients at the end of year one (CMS, 2015). According to McMahon et al., the Advisory Board Company surveyed 1843 patients regarding their loyalty to their PCPs and found most patients do not have any loyalty. McMahon et al. argued the health care industry has not spent much effort on patient loyalty unlike other industries and therefore are ignoring the increased cost of obtaining new patients, the acknowledgment that loyal patients tend to overlook errors and increase the organization's patient population through referrals for clinical care.

Clinical. Some of the Pioneer ACO leaders were successful in achieving the ACO quality standards. Bellin Thedacare, one of the original Pioneer ACOs, experienced high-quality scores overall and the best scores in the pilot in the areas of specialty access, shared decision-making, and hemoglobin A1c control (Toussaint et al., 2013). Some of the ACO's success related to a pre-existing robust performance improvement system evidenced by other rankings, such as placing first in its state of Wisconsin in clinical outcome measures. Toussaint et al. (2013) alleged the patient measures such as lowering hemoglobin A1c and breast cancer screening are just two examples of previously managed measures that overlap with the ACO quality standards. Other Pioneer ACO leaders succeeded in achieving the benchmarks but also achieved high performance through other systems thinking and ACO quality measures.

Health care managers have found system thinking to be beneficial in successfully implanting an ACO. Banner Health, a Pioneer ACO, experienced success by

implementing a case management system (Stutz, 2013). According to the author, the system involved using standardized assessment tools, action planning, and workflows that improved variation, handoffs, communication, efficiency, and patient outcomes. For Banner's population of 66,685 patients, a reduction in the length of hospital stay reduced to 3.18% in 2012, a reduction from 7.52% (Stutz). The author concluded that implementing a case management system assists in achieving quality standards but requires systematic changes to technology and organizational structures.

Atrius Health, an early Pioneer ACO participant and a non-profit physician group located in eastern Massachusetts, implemented a beta-blocker program in 2014 for its 7,300 eligible ACO patients with a goal of achieving a higher performance level on the ACO quality standard (Elman & Zaiken, 2016). The demonstration resulted in improved performance from 74% in 2013 to 82% in 2014, leading to an incentive payment of $7,000.00. According to Elman and Zaiken (2016), the program consisted of

- educating clinicians on the importance of patients being on the appropriate beta-blocker;
- providing an evidence-based protocol;
- developing EHR tools;
- engaging pharmacists to review charts of eligible ACO patients and intervening appropriately; and
- contacting the patient's PCP or cardiologist before the next office visit.

Leaders from another ACO, Atrius, shared lessons learned from their ACO implementation strategies (Elman & Zaiken, 2016). The researchers found the lessons

learned included the need for better documentation, allowing pharmacists to create their methods to clinician relationships, collaboration with a recognized clinician, and the recognition of the clinician's lack of time. Elman and Zaiken (2016) shared that ACO leaders discussed having pharmacists to be more involved with patient education and discussion but would need data to show the pharmacist salary was worth the investment of the incentive return to improve operational performance. The results of the study indicated belonging to an ACO supported the health care managers in achieving the ACO quality standards.

Highfill and Ozcan (2016) conducted a study on the performance of ACO hospitals using data from 2008 to 2012, with a focus on productivity (technical efficiency and innovation) and quality (patient experience and clinical outcomes). Highfill and Ozcan found that ACO hospital leaders performed better than non-ACO hospital leaders on technical efficiency, patient experience, and clinical outcomes, with a notable decline in innovation. Highfill and Ozcan further offered the higher performing leaders in states with ACOs had pre-existing mature HIT programs and strong operational infrastructures.

Operational. Organizational leaders' operational performance has a direct effect on meeting ACO standards. Shortell et al. (2015) conducted a quantitative study of the state hosting the largest number of ACOs in California. The authors concluded 50% of physician-led ACO leaders believed ACO contracts would cover at least 50% of the patient population and 80% believed ACOs would exist in their market. Based on study findings through a two-step-cluster-analysis approach, Shortell et al. (2015) found early experiences from ACO leaders indicated the capability of managing high-risk patients, a

robust EHR, a sophisticated care management program, medical staff leadership, and a quality improvement model that is useful in setting, reaching, and sustaining established goals. The authors strongly suggested future ACO health care managers should consider creating and implementing a capability package that consists of four characteristics:

1. Behavioral and workflow systems that allow delegation to non-physician providers (nurses, pharmacists, case managers, etc.).
2. The ability to create effective teams.
3. The system redesign of the office visit.
4. The capacity to determine if patient populations are large enough to qualify for an ACO and to perform data analytics.

Shortell et al. (2015) further found six concerns about future ACO policies:

1. The size of the ACO patient population.
2. The ability of ACO leaders to implement effective care management systems.
3. The challenges ACO leaders experience with securing high-performing EHR systems and information exchanges.
4. The understanding and competence of ACO leaders to obtain unanimous agreement amongst all payers on performance measures.
5. The skill and success of ACO leaders in building partnerships and alliances.
6. The inability of ACO leaders and providers to engage patients.

Lage, Rusinak, Carr, Grabowski, and Ackerly (2015) endorsed the efforts of health care managers implementing a care transformation program, based on the 2013 experience of the Pioneer ACO, Partners HealthCare System (PHS), located in

Massachusetts. Based on this research, building alliances with SNFs when implementing an ACO and designing program to analyze the SNF's varying performance should be a priority. All the SNFs in eastern Massachusetts were invited to participate in the project named the SNF Collaborative. Study investigators focused on a method used by PHS to select preferred SNFs based on publicly reported data and self-reported information from the SNFs.

The first requirement was the SNF had to score a minimum of three stars on the CMS Five- Star score and attainment of greater than the 50th percentile on the Massachusetts Department of Public Health Survey performance (Lage et al., 2015). Further, the researchers required a second level criterion for inclusion that included provider availability for consultation, how quickly providers see a patient once admitted, the tenure of the medical and administrative staff, and other non-publicly reported data. Finally, based on *t*-tests and case mix index, Lage et al. (2015) selected contenders for partnership. According to the study findings, 8.6% of the SNFs had medical teams readily available, and 27.9% saw patients within 24 hours of admission, indicating a need for ACO leaders to establish good hand-off communication at hospital discharge and complete transfer records. Lage et al. concluded the study was important to future leaders planning to implement an ACO by showing evidence that team building and effective care management systems among differing facilities are crucial to success and most likely can improve patient experiences and clinical outcomes. Other ACO leaders have attempted to develop care transformation efforts with mixed results.

Bellin Health, a health care organization that was part of the Pioneer ACO, and the first participant of the Next Generation Model, also expanded their care transformation program beyond the hospital walls (Erickson, Pittman, LaFrance, & Chapman, 2017). The program encompassed two care team coordinators, case managers, clinical pharmacists, diabetes educators, and behavioral health specialists to manage high-risk patients in 35% of the PCP offices. Erickson et al. (2017) found the systematic process involved the PCP personally introducing the patient to the referred provider, home visits by the care management team, and in-person escorts to medical appointments. According to Erickson et al., the program leaders' goal is to deploy the program to all PCP practices by 2018. The study findings indicated care transformation may be required to be successful in implementing an ACO, but leaders have struggled in demonstrating the return on investment, as reimbursement is indirect (Erickson et al., 2017). This study emphasized the SNF leader's role in an ACO. However, other disciplines also played a critical role in implementing a successful ACO.

Pharmacists served as an important component of ACO system change strategies. Brummel et al. (2014) conducted a study on the pharmacy services of Fairview, an original Pioneer ACO. From October 1, 2012, to June 30, 2014, Brummel et al. studied pharmacists in Fairview's pharmacy, in collaboration with the University of Minnesota College of Pharmacy, expanded its existing Fairview Pharmacy Services Program encompassing 23 full-time pharmacists in 30 locations. Brummel et al. explained the program pharmacists' task was to identify the patient's drug needs, an evaluation to ensure all the required medications are appropriate and not contraindicated to the

patient's health, achievement of ACO quality standards, and building collaboration among ACO providers and clinicians.

The Fairview pharmacists evaluated 670 high-risk ACO patients that led to over 2,780 medication interventions (Brummel et al., 2014). According to the study findings, the most common interventions included the discovery that the patient's drug dose is too low or the patient needed additional medication, particularly in the patient population with the diagnosis of diabetes. Brummel et al. (2014) suggested key strategies to implement a pharmacy management program within an ACO. Brummel et al. further identified the strategies included systems to identify high-risk patients, pharmacists in-person consultation with patients, the establishment of protocols that delegate authority to pharmacists to change medications, two-way communication between providers and pharmacists, and the significance of appointing a visionary leader. The authors asserted medication management is critical to the success of an ACO but that ACO leaders should be cautious and take into consideration the direct and indirect costs associated with starting and sustaining a medication management program in consideration of potential social determinants.

Social determinants. Social determinants serve as a fundamental underlying attribute of successful ACOs (i.e. housing). Another Pioneer ACO, Health Care System in Massachusetts, is the second largest employer in Massachusetts, managing 11 hospitals and employing 17,000 while serving one million patients yearly in 150 communities (Corbett & Kappagoda, 2013). According to Corbett and Kappagoda (2013), the ACO leaders implemented three preventive strategies to enhance their payment reform. The

first program implanted was the Community Health Advocates Initiative, encompassing four goals of

- increased enrollment for eligible patients of the state's Medicaid;
- reduced financial loss related to these patients;
- decreased PCP patient no-show rates; and
- minimal visits to the emergency rooms.

Corbett and Kappagoda (2013) stressed the impetus behind the program was to analyze financial losses by language and employ bilingual community health advocates to reduce or eliminate barriers. The program resulted in 833 patients enrolled in the state Medicaid program and reduced bad debt by over $1 million. Based on this success, the leaders pursued a second initiative.

The second initiative was the medical-legal partnership designed by the leaders to eliminate the patients' barriers to health care services (Corbett & Kappagoda, 2013). The researchers found the program leaders increased eligible patients accessed to state and federal disability, and public benefits programs and focused on decreasing utility shut-offs for families with children. The study results indicated that over a four-year period, the program leaders overturned benefit denials in 17 cases, resulting in patients receiving health care coverage and Steward receiving $923,188 in reimbursement for current and historical services. Other ACOs have implemented successful innovative system change strategies.

Steward leaders implemented the Healthy Beverage Program, targeted at reducing the number of sugary drinks consumed by the patients in their serviced communities.

Corbett and Kappagoda (2013) found that one of the pilot sites, St. Elizabeth's Medical Center, experienced a 54 percent decrease in sugary beverages sales and a 35 percent upward trend in healthy beverage sales. Corbett and Kappagoda further found when Steward leaders rolled the program out to all Steward sites, there was an average of six to 25 percent reduction in the sugary beverage sales.

These three initiatives showed the challenges of interventions to improve social influence on health care services. The programs reflected the Pioneer ACO goals of preventive services, the system's commitment to the community, improved quality, and reduced costs. Corbett and Kappagoda (2013) concluded by emphasizing that for health care managers to successfully implement an ACO's goals of improving quality and reducing cost, systems that incorporate innovation for preventive care and community commitment are necessary and challenging.

Challenges Experienced in Meeting ACO Quality Standards

Physician engagement. Several authors have offered challenges from other past organizational ACO experiences, and the challenges health care leaders face addressing organizational culture change and physician engagement in the dramatic organizational culture change. Larkin (2014) offered the areas that needed focus for success included assessing market opportunities, the organization's capabilities, building those skills through internal and external partnering to achieve specified goals, and cultivating leaders and physicians to execute the action plans. Larkin further opined that another significant obstacle for physicians is developing and implementing patient engagement processes that keep patients subscribing to the ACO services instead of perceiving their

services are limited or not available. Some authors asserted patient engagement should not be the priority of health care managers, but rather the performance of the PCPs.

Greene, Hibbard, and Overton (2015) conducted a study to determine if PCPs' participation in an ACO improved their quality performance. Using 2010 to 2012 data from the Pioneer ACO Fairview Health Services in Minnesota, Greene et al. found that the ACO PCP scores were no better than other health care service delivery systems. Greene et al. further found that the leading attribution to the PCPs' improved performance was if the provider started with a low baseline in their quality measures. According to Greene et al., those PCPs with a low baseline improved on average up to three times better than baseline, which resulted in a closer alignment of individual PCP clinical scores across the ACO, although the providers did not achieve the desired financial incentives.

Clinical. Implementing a successful ACO presents different and significant challenges for health care managers. North Carolina ACO leaders entered the ACO model in 2012 with a focus on models of care redesign, IT, and moving contracts with all payers to value-based purchasing (Terrell, 2016). According to the author, the leaders of the participant, Cornerstone Health Care, experienced exceptional financial and quality results pre-ACO participation but were challenged in implementing the ACO. Cornerstone's leaders focused on the creation of care transformation through system changes related to (a) healthy but chronically ill patients, (b) Medicare-Medicaid dual eligible patients, (c) developing additional outpatient services, (d) employee health initiatives, (e) organizational redesign, and (f) the elderly, particularly those with

dementia (Terrell). The author asserted that Cornerstone ACO leaders did not benefit from any MSSP incentives until attaining the sixth highest national quality score and the fourth lowest cost ranking in their second year. Believing there was still an opportunity to improve their performance on the ACO standards, the ACO leaders elected to join the Next Generation ACO model with plans to expand the Cornerstone participants through stronger community collaborations (Terrell). Another area of concern for health care managers in implementing an ACO is patient safety.

Lui and Wu (2016) alleged the fast-paced implementation of an ACO presents significant patient safety concerns and, as a result, ACO leaders should utilize an analytical model-based-decision-support system to help them identify potential outcomes of ACO strategies to navigate the creation and implementation of an ACO proactively. Lui and Wu conducted a study utilizing an agent-based simulation model ACO leaders could use for predictive analysis, which encompassed payers, providers, and Medicare patients related to congestive heart failure (CHF) and using data from the National Health and Nutrition Examination Survey (NHANES) from 1999 to 2010. Lui and Wu opined the financial incentives have the potential of influencing provider behavior. The researchers further asserted that when utilizing the agent-based simulation model, ACO leaders have the opportunity to evaluate and assess program designs for disease conditions, payment models, and provider and patient characteristics, allowing ACO development and implementation strategies that do not harm patients. CMS should be cautious when setting performance thresholds and benchmarks should be configured to

encourage PCPs and hospital leaders to work collaboratively to provide a high quality of care for patients while reducing related expenditures, such as IT.

Even given the described challenges, ACO hospital leaders have shown improvement in quality measures, as compared to national benchmarks. Between 2008 and 2012, the leaders of the ACO hospitals who participated in the MSSP ACO model showed improved and favorable results (Highfill & Ozcan, 2016). However, Highfill and Ozcan (2016) found it was difficult to attribute this gain to the ACO efforts as the leaders were diligently working on the quality measures before joining the ACO. One of the main challenges to being successful in improving the quality of care continues to be the obstacles to implementing a robust HIT system.

HIT. The Colorado Accountable Care Collaborative Program discovered their efforts indicated progress toward quality goals. According to Rodin and Silow-Carroll (2013), the lessons directly influenced by quality data revealed accurate and detailed data collection systems that can be shared and benchmarked was necessary to establish accountability. Rodin and Silow-Carroll found another challenge experienced by the Colorado Accountable Care leaders was the development of quality measure standards that allowed leaders to align provider incentives with the ACO quality and cost benchmarks. Further challenges included the technical capability and capacity to use the CMS claims database, the ability to access needed data quickly and efficiently, the lack of real-time exchange of health data, and barriers to information sharing (state and federal privacy laws and the Health Insurance Portability and Accountability Act [HIPAA]).

Leaders of the Beth Isreal Deaconess Medical Center (BIDMC), an academic health care delivery system affiliated with Harvard University, also experienced several challenges related to HIT during their efforts to implement a Pioneer ACO. Per Halamka (2014), BIDMC's leaders found multiple concerns with the use of big data required for quality analytics, predominantly the quality of the data through identifying variance in how different personnel initially enter or omit data and the competing conflict of the regulatory requirement of medication reconciliation. Halamaka further discovered the medication reconciliation program, designed to require staff collection of a complete and accurate patient medication list, resulted in a perceived increase in patients taking new medications.

The challenges included inconsistent interpretation and use of medical terminology and patient privacy concerns (Halamka, 2014). The author revealed that the BIDMC leaders implemented two process steps to reduce or eliminate data issues, including the requirement of data queries created by subject matter experts and limiting prequalified query concepts for the purpose intended. Halamka (2014) concluded the future of big data is positive, but health care managers should be cautious in building, interpreting, and utilizing the outcome data to compete in their market.

ACO leaders may be challenged to develop and implement new competitive data management expertise. According to Hunt et al. (2015), there are minimal HIT solutions available on the market, thus forcing leaders to create and implement innovative HIT systems and develop system change strategies. Hunt et al. further opined that some of the difficulties in data management include duplication in product functionality among

vendors and the finances needed to focus on the clinical, operational, and technical resources required to meet the ACO standards. Hunt et al. suggested a seven-step strategic approach by solidifying the ACO's population health management strategy; identifying governance for the population health management HIT strategy; developing operational requirements based on customer needs and the tasks that need to be completed to address data needs, cost of care, risk stratification, case and care management, patient outreach, patient self-management goals, and performance and financial management feedback; performing a gap analysis for HIT requirements and current performance developing an HIT investment, budget, and timeline; evaluating external HIT capabilities; and developing a continuous learning system for newly implemented HIT solutions.

Leaders of the Southeast Michigan Beacon Community (SEMBC), a Pioneer ACO, experienced many challenges while developing HIT capabilities (Jardins, 2014). Using a case study framework and methodology and data from February 28, 2011 through December 31, 2013, Lui and Wu (2016) found the ACO utilized the data warehouse governance (DWG) program guidance to develop HIT strategies. According to Lui and Wu, the ACO leaders experienced challenges with (a) EHR intra-operability, (b) data measurements, (c) non-user-friendly reporting tools, (d) training, and (e) competing priorities from multiple incentive programs and other operational demands. Lui and Wu conducted interviews with SEMBC leaders, which results indicated the DWG framework was useful when incorporating all nine components, and ACO leaders should have an awareness that the tool pertains only to health care settings, not patient

population programs that address the health of the entire community. The researchers concluded ACO leaders should continually assess and revise organizational structure and guiding principles to ensure alignment with new partnerships and affiliations to be positioned to compete with other health care leaders.

Competition. One area of inadequate research is how ACOs may perform in the same market, as most now only compete with other health care delivery systems. Mcfarlane (2014) asserted ACO leaders lack an understanding of the importance of producing positive results for customer values. According to Mcfarlane, this new paradigm of thinking requires precise identification of customer and market opportunities, developing and implementing a solid strategic plan, creating innovative products and services that meet customer needs, ensuring the ACO has a solid quality management tool and a plan for a robust operational and network management. Mcfarlane concluded starting the implementation of these strategies could prepare existing ACOs to successfully compete with other ACOs in their primary market, particularly on the ACO cost standards.

System Change Strategies used to meet ACO Cost Standards

Patients. Patients covered for health services under the umbrella of ACOs are not required to seek health care services within the ACO system or from the ACO providers. Casalino (2015) opined private payers that copied ACO-like contracts were increasing, and payers offered higher financial bonuses to individual patients who obtain services from the identified ACO services. Casalino further suggested four initiatives for Medicare leaders to implement to address this gap in the ACO model. Casalino stressed

the four initiatives included providing a robust ACO education program for patients, allowing ACOs to waive co-pays and deductibles, offering financial savings to patients who elect to receive services within the ACO program and proving to patients services provided under the ACO plan are of a higher quality of care.

There were mixed results from the experiences of the ACA service delivery models (Adepoju, Preston, & Gonzales, 2015). Studies found there continues to be a large difference in the level of health care services provided among patient races (Pourat, Bonilla, Young, Rodriguez, & Wallace, 2018). Pediatric patients treated under the ACO design had no better outcomes on preventative or selected quality measures (Anderson, Ayanian, Zaslavsky, & McWilliams, 2014). ACO managers need to understand the important implications for health care organizations and providers in addition to understand the organization's particular environment, including demographics, payer mix, and patient population (Powers & Chagutur, 2016). The authors opined the necessary planning for physician engagement in a successful and sustainable ACO required sophisticated strategic planning, significant financial and resource investments in population health management, and organizational system capabilities.

Physician engagement. Through a study of four ACOs, Addicott and Shortell (2014) found physicians who belonged to an ACO experienced an increase in the volume of relationships that held individual physicians accountable by peers, employers, associated clinical groups, and payers was increasing. According to Addicott and Shortell, the primary method for holding physicians accountable was through incentives that may not directly improve operational performance.

Operations. According to Casalino (2015), unless many ACOs can achieve and sustain savings through the CMS contractual arrangements, the sustainability of the ACO program is at risk. A significant contribution to the success of the pilot Pioneer ACOs was that CMS legislators purposely selected participating health care organizations with expertise in the operations of managed care contracting, (Nyweide et al., 2015). Casalino asserted that before ACOs, organizational leaders who had previously been successful at operating managed care organizations, such as Kaiser and Geisinger, consciously decided not to implement ACOs or participate in the Pioneer ACO pilot.

Careful attention to contractual arrangements and benchmarking may be key to the health care manager's success in implementing an ACO. Douven, McGuire, and McWilliams (2015) found the incentives (or benchmarks) for ACOs enrolled in the MSSP were designed to discourage lower Medicare spending in the three years before enrolling. Douven et al. stressed the incentive formula includes spending for the three previous years before the ACOs join, with a higher weight of 0.6 given to the third year. According to Douven et al., the formula's design incentivized ACOs to inflate spending in the third year to increase their financial benchmarks, making it easier to obtain shared savings once the ACO begins.

Two determinants of how much ACO leaders received in incentive payments are the spending target and the risk-sharing arrangement (McWilliams, 2014). The author found that there are two negative aspects of the current payment methodology based on the ACO leader's ability to improve outcomes. According to McWilliams (2014), the first deficiency is the margin of improvement may decrease the longer ACO leaders

participate, and the second deficiency is the first determinant gives lower performing ACO leaders the edge on receiving additional funding while simultaneously discouraging high performers.

To be successful, ACO leaders may strive to offer additional primary care, less inpatient care, selective preventive care strategies, and an operational focus on value instead of volume (MacKinney, Mueller, Vaughn, & Zhu, 2014). According to Iuga and McGuire (2014), U.S. health care cost totaled over $2.7 trillion and was 17.9% of the gross domestic product in 2010. Berwick and Hackbarth (2012) estimated variation in health care could cost the health care systems as much as $285 billion to $425 billion annually. Berwick et al. argued if the focus were on reducing waste, CMS could save more than $3 trillion over the same time-period and approximately $11 trillion for all payers. Berwick et al. further predicted the health care reform actions could result in more than a 20% savings if inefficiencies improved, with specific attention to overtreatment, care coordination, and successful implementation that could contribute to progress in addressing social determinants.

Social determinants. Demographics are an area of concern for health care managers attempting to address health care reform challenges. A study conducted by Epstein, Jha, Orva, Leibman, and Audet (2014) indicated there are demographic differences between ACO and non-ACO patients. According to Epstein et al., ACO patients tended to be 80 years-of-age with higher incomes and were less likely to be black, disabled, or Medicaid recipients. The second significant finding of the study was the ACO leaders were aligned with participating large, teaching, and not-for-profit

hospitals. From the study, Epstein et al. concluded there was not much of a variance in metrics, and there were statistically significant differences of clinical conditions when compared to non-ACO patient populations.

Aligning patient loyalty actions and organizational efforts to improve patient population outcomes may be an opportunity for ACO health care managers. According to Cramer, Singh, Flaherty, and Young (2017), under Section 501(r)(3) of the Internal Revenue Code and with the creation of the ACA, not-for-profit hospitals are required to conduct a community health needs assessment (CHNA) every three years and implement strategies to address gaps. Cramer et al. conducted a study to determine how hospitals were progressing in meeting the requirements of the CHNA, including both ACO and non-ACO participants. The researchers found those hospitals engaged in ACO activities had a higher completion and action planning implementation rate than those hospitals that were non-ACO affiliated, therefore having a higher success rate in meeting ACO standards.

Health care managers of ACOs have great potential to improve population health through their efforts to meet ACO standards. Knox, Rodriguez, and Shortell, (2016) conducted a 2014 study of multi-sectoral partnerships and patient-engagement strategies in ACOs with a focus on how fourteen strategies affect population health. Knox et al. found that some of the fourteen strategies range from appropriate patient referrals for prevention, wellness programs, school interventions, health coaches, medication management, and a focus on patients with high-risk diseases such as diabetes and cardiovascular diseases. Knox et al. found ACO managers vary in their practices and

implementations of patient experience activities. Further, the study indicated the few community partners were religious, public health and housing associations. Knox et al. posited ACO leaders are challenged to enhance the patient experience, quality outcomes, and cost reduction without community partners and successful system change strategies.

Effectiveness of System Change Strategies Used to Meet ACO Cost Standards

Operations. Bellin Thedacare Health Partners ACO located in northern Wisconsin, one of the original Pioneer ACOs, achieved a 4.6% improvement in total cost of care for approximately 20,000 Medicare patients (Toussaint et al., 2013). Toussaint et al. (2013) found Bellin Thedacare was the top cost performer at the end of year one on per-capita cost. According to Toussaint et al., one of the key drivers for the organizational leaders' success was the existing foundation of an advanced system that measures patient value and efficiencies, based on the Lean Manufacturing system.

Timing may be another factor that influences the success of health care manager's implementation of an ACO. McWilliams, Hatfield, Chernew, Landon, and Schwarz (2016) found through quasi-experimental methods that participants who entered into the ACO model in 2012 experienced greater gains than those ACO leaders who joined in 2013. McWilliams et al. provided an estimate of $238 million expenditure reductions for the 2012 participants but asserted the savings did not transfer to Medicare, as Medicare spent $244 million in bonuses due to the participants who performed over the established benchmarks. McWilliams et al. showed evidence that independent primary groups had significantly higher savings than providers integrated with hospitals due to the

independent physician groups being accountable for the reduction of inpatient hospital service costs.

Another consideration for meeting ACO cost standards is what type of health care services participating patients are provided. McWilliams (2016) found the participants were successful in switching more expensive hospital care to outpatient settings, reducing post-acute care services, but not in cost reduction associated with low-value services. McWilliams et al. defined low-value services as services that resulted in minimal clinical benefits to the patient, while Leigh, Niven, Boyd, and Stelfox (2017) further emphasized low-value services were ineffective or harmful to patients. McWilliams et al. asserted the study results show small cost cuts in the early years of the Medicare ACO programs. Further, McWilliams et al. concluded ACO participants with the most cost reduction performance progressed faster, but the transformation is slow and became more challenging as participants continued to reduce the gap between performance and the established benchmark successfully.

Challenges Experienced in Meeting ACO Cost Standards

Patients. Understanding how patients are assigned is critical to health care managers. By 2018, 90% of Medicare payments may be tied directly to quality and cost (Fiesinger, 2016). The author alleged the process commercial and government payers use to assign accountability for a patient's care is called patient-attribution. Patient-attribution is a payment model designed to assign patients to the provider who completed the most services to the patient or to the provider who saw the patient last (Fiesinger).

According to the author, patients can be assigned either before the ACO contract begins or at the end of the ACO contract.

More significantly, Hilligoss et al. (2017a) found that ACO managers are held accountable for quality and cost outcomes for patients that are not totally under the control of the ACO leaders. Hilligoss et al. highlighted ACO patients assigned to an ACO by CMS have the right to self-refer to a provider or service outside of the ACO. Further, the patient has the option to seek unnecessary high-cost services or attaining services from a provider who does not follow evidence-based guidance and care plans (Hilligoss et al., 2017a).

The length of time patients are enrolled in an ACO may have a direct impact on whether or not health care managers achieve the ACO cost standards. Leaders of the Setting Partners Healthcare, one of the original 32 ACOs with the highest number of patients, found that out of the 42,050 patients in 2012, 82.3% remained enrolled with the ACO in 2013 (Hsu et al., 2016). The study indicated 2.5% died in 2012, and 14.6% of the patients exited the ACO. Per Powers and Chagutur (2016), following the 80/20 logic, a small number of patients represent the majority of the costs associated with health care service delivery. Most of these high-cost patients have one or more chronic conditions, with most having diabetes, heart, or kidney diseases blended with excess post-acute care and requiring high physician engagement (Powers & Chagutur, 2016).

Physician engagement. The experiences of ACO leaders have shown the value-based approach requires complex system change strategies and an engaged physician workforce. Although the proportion of physician Medicare total cost is low at 10% to

11%, they play a vital role in engaging and directing patient care, therefore requiring patient, payer, and physician goal alignment (Shortell et al., 2015). Another important dynamic of health care reform is the forced alignment of hospitals and physician practices (Baker, Bundorf, & Kessler, 2014). Baker et al. (2014) described the strategic alignment as vertical integration and found mixed results as the integration lead to higher prices and higher levels of hospital spending.

In alignment with Baker et al. (2014), McWilliams (2013) opined another area presenting a threat to an ACO's prosperity is the role of the PCP. McWilliams expressed that under the ACO design, the PCP is the coordinator of the patient continuum of care and have considerable influence over specialty consults, ancillary testing, procedures, emergency care, elective hospitalizations, and home health visits. McWilliams further asserted ACO leaders are forced to control spending at the organizational level, designing appropriate incentives to re-enforce systems that do not encourage volume or over-use of services but fairly attribute to both primary and specialty care providers. According to McWilliams, ACO managers may have to develop sophisticated operational programs to address preventive services, as care coordination and disease management tend to increase costs and encourage unnecessary preventative services.

Another important aspect of the ACO health care manager's ability to successfully implement an ACO and meet the standards is the consideration of the organizational culture that needs to take place for operational system changes to be productive. In support of the cultural concept, Hilligoss et al. (2017a) conducted a two-year qualitative study to further the development of strategic efforts used by

administrators to align the structures, processes, and behaviors of organizational workforces implementing ACOs. All four ACO participants used five strategic practices to enhance physician engagement. The strategies included informing providers of the measures and the underlying intent of ACO efforts, involving the providers in decision making, enhancing the provider's operations, and evolving learning. Successful ACO leaders may need to develop provider understanding, attention, trust, organizational structures, processes, and incentives.

Operations. Operations may present obstacles for ACO health care managers. Bellin Thedacare was a high Pioneer ACO performer receiving $5.2 million in shared CMS ACO savings incentives, yet the Pioneer ACO experienced an overall financial decline from a projected 3% increase in annual revenue to 0.7% decrease the first six months of 2013 (Toussaint et al., 2013). Attributions to the decline in income included patient assignments, with 82% of the patient population still being cared for under fee-for-service commercial and Medicaid payers. Further, Toussaint et al. (2013) opined that reducing hospital admissions resulted in less revenue with no opportunity to share savings.

McWilliams (2013) performed a study using 2009 Medicare claims assigned to the American Medical Association (AMA) Group Practice file to understand how the assignment of post-acute evaluation and management services considered as primary care affect assignment of ACO patient populations, particularly the Pioneer ACOs and the MSSPs. McWilliams found ACO assignment included 93.7% of 25,992 of the community-dwelling patients who received at least one SNF care episode, with 61.7%

assigned to an ACO provider. McWilliams further found the cost of care per patient in this group was $55,184 higher than with no SNF visit. McWilliams offered that the CMS patient assignment algorithm for these patients may have significant effects on ACO incentives, and 30% of the patient population who had an SNF stay and multiple hospitalizations may not contribute to the ACO performance. McWilliams opined the assignment algorithm might reduce the ACO's incentive to facilitate care and reduce expenditures for a patient population whose medical treatment lacks coordination and is often expensive. These findings suggest there is an opportunity for CMS leaders to adjust the incentive calculations.

McWilliams (2013) concluded two potential changes to the CMS assignment algorithm. First, use the definition of primary care services to assign long-term nursing home patients, thus building accountability by both the ACO and the affiliated SNF. Second, remove SNF services from community-dwelling patients allowing the ACO not to be assigned responsibility for this patient population. McWilliams expressed that these changes affect the ACO leader's accountability of managing these high-cost patients, allow better care management efforts, and support reduced costs for Medicare.

Conclusion

Originators of the ACO model challenged health care managers to improve patient quality outcomes while reducing care delivery costs. The savings for the Pioneer ACOs in year two were one-third less than the year-one savings, possibly attributable to the health care managers' ability to make improvements in areas that were easily fixable (Casalino, 2015). The goal of improving value over cost as the central concept of the

new health care reform may affect all aspects of the system, requiring the change to be systematic and ongoing (Glanzman, 2017). ACO structures may be appealing to physicians, but not without a higher level of financial bonuses, robust HIT systems, system change strategies that allow more interactions with patients, improved data and communications with CMS, and protection from regulatory sanctions.

Creating organizations and developing health care managers capable of implementing and managing system strategies for a successful and sustainable ACO presents a complex and challenging forecast. Fisher et al. (2012) offered that given that the government regulators see the leaders of ACOs committed to reducing health care costs and improving the quality of care, it appears the new health care delivery design is now part of the health care industry future. ACO challenges remain unknown, as well as what strategies are necessary to ensure long-term success and sustainability of these organizations.

Transition

I introduced the overall topic of this study of ACO system change strategies, provided a review of the associated literature review highlighting the importance of the research problem, and included an explanation of the chosen methodology to address the research question in Section 1. I also explained the conceptual framework of the study at a high level, assumptions, limitations, delimitations, and provided operational definitions. Finally, a summary of the potential contribution to the business practice and implications for positive social change could result from the completion of the study was included. The problem statement and purpose statement for this qualitative, multiple case study

supported the aim exploring what system change strategies successful health care managers use to meet ACO quality and cost standards. In Section 2, I presented the research design, data collection technique and analysis, and the validity and reliability of the study. Section 3 provides the findings, application to professional practice, implications for change, recommendations for action and further research, and conclusions.

Section 2: The Project

For this qualitative multiple case study, I explored system change strategies used by health care managers when implementing an ACO. In Section 2, I provide the purpose statement and outline key components of how to plan for and complete the research project, including the role of the researcher, the participants, the research method and design, the population sampling, and the ethical foundation for the study. I also provide a review of the data collection instruments, techniques, organization, and analysis, followed by the reliability and validity methods for the study. Last, I include an explanation of why the methodology and design were the most important.

Purpose Statement

The purpose of this qualitative multiple case study was to explore what system change strategies health care managers used to meet ACO quality and cost standards. The specific populations were health care managers from three ACOs located in Arizona, New York, and Wisconsin who implemented successful strategies to meet ACO quality and cost standards. The implications for positive social change include the potential for improved health care for patients in the United States through better access, increased quality, and lower costs.

Role of the Researcher

As a researcher, my role in this study was to serve as the primary data collection instrument. According to Merriam and Tisdell (2016), the charge of the qualitative researcher is to understand the viewpoints of the participants without mediating between competing accounts, while Sanjari, Bahramnezhad, Fomani, Shoghi, and Cheraghi (2014)

emphasized that qualitative researchers have a great obligation to perform various roles, such as recorder, interviewer, and data analyzer. Merriam and Tisdell expanded the researcher's responsibility by asserting the importance of analyzing the participants' accounts while linking the empirical findings with a theoretical understanding. Upon the conclusion of data gathering, I conducted data analysis to identify inductive, reoccurring trends to identify themes to incorporate into a formal descriptive report.

My knowledge of the topic was based on a 30-year work experience in the health care industry and my current organizational leadership strategically planning to implement an ACO. I have no specific personal or professional relationship with the participants or research area. I do have limited professional interaction with some of the Pioneer ACO leaders through nonrelated ACO activities, such as the Lean Program at Bellin Thedacare in Wisconsin.

Before any research began, I obtained approval from Walden University's Institutional Review Board (IRB). Participant sharing of experiences occurred through the development and selection of interview questions, data collection, and data analysis. Following the guidance of Bugos et al. (2014), I provided synthesized summaries of data from the audio recording to interviewees for any corrections to ensure data saturation. I included the process of member checking to allow participants an opportunity to review the data interpretations and submit corrections or additions.

As the primary data collector for this study, I used an interview protocol to provide step-by-step instructions regarding the interview process. The interview protocol (Appendix B) was based on literature review and included questions summarized in

Appendix A. As described by Yin (2016), I used an interview protocol to present a neutral stance in collecting data and to assist in achieving converging and triangulating evidence that did not inhibit the discovery of new insights.

The interview protocol incorporated the three Belmont Report ethical principles of respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research [NCPHSNNR], 1978). To ensure respect for the participants, the language of the research was unbiased in regards to gender, sexual orientation, racial or ethnic group, disability, or age. Furthermore, I respected each participant by making each interviewee aware of the data collection processes before participating in the study and obtaining informed consent. Site participation consent was obtained from the parent organizational leader to provide an overview of the multiple case study including access to interview data and reports, as will as Walden's strict adherence to confidentiality.

The NCPHSNNR authors (1974) described beneficence as researchers who obligate themselves to treat participants respectfully through formal guidelines designed to protect the participants from harm while securing their wellbeing. The interview protocol (Appendix B) served as a guide to achieve this goal. Through the interviewing process, I honored and kept a high level of awareness of the participants' confidentiality and time. The process ensured the protection of the participants' personal, psychological, and financial exposure. Additionally, the protocol was useful in asking the same questions of all participants and keeping with my scheduled time allotment.

The underlying ethical principle of justice reflects who benefits and who suffers from the research, and that each person should be treated equally (NCPHSNNR, 1974). The process of participant selection hinged on the ACOs in the states of Arizona, New York, and Wisconsin. Thus, participant selection was based strictly on characteristics and performance. I did not influence the participants by offering future professional or personal opportunities for participating in the study.

Boyle and Schmierbach (2015) suggested any action or demeanor of the researcher could skew the results and reflect researcher bias. Likewise, Hanson, Balmer, and Giardino (2011) asserted the researcher should recognize his or her role and biases related to the research topic and rigorously attempt to identify and minimize biases to ensure the neutrality of conclusions. Unlike the quantitative methodology, preventing researcher bias in qualitative studies is challenging as the researcher serves as the data collection instrument (Cope, 2014). I emphasized my role as a student with much to learn from the collective experience of the interviewees. I reduced researcher and participant bias through methodological triangulation of divergent data resources to shape validity from themes gathered from the data. Further, I used peer member checking to assist in defining possible bias when analyzing themes and presenting conclusions.

Member checking is a technique that qualitative researchers may use to reduce bias and explore the credibility of the study findings. According to Birt, Scott, Cavers, Campbell, and Walter (2016), a researcher may lessen bias by engaging the participants in verifying the results. A qualitative researcher may accomplish member checking by returning the transcribed interviews to the participants' review for accuracy (Harvey,

2015). In alignment with this guidance and to achieve member checking, I transcribed each interview question verbatim. Each participant received an emailed copy of the transcript to review for accuracy. Further, each participant had the opportunity to provide feedback or additional information if appropriate. Following Harvey (2015), I considered member checking accomplished when no participant returns new data or corrections. Using member checking enhanced the credibility of the study by improving the trustworthiness of the data and results and assist in reducing researcher bias.

Participants

Participants were required to meet the eligibility requirement within the scope of the population. The criteria for participation was (a) willingness to take part in the study, (b) ability to speak and write in English, and (c) be a health care manager who used successful strategies to meet the ACO quality and cost standards. The length of time the health care manager had been in the role was not part of the criteria, as the research reflects what system change strategies occurred in the organization that lead to the successful implementation of an ACO.

Fugard and Potts (2015) opined that determining the sample size is an important step in planning research. In following the philosophy of Lee (2014), I focused on the quality of the population, rather than the quantity. My goal was to obtain permission to interview ACO health care managers from the Pioneer ACO performers located in Arizona, New York, and Wisconsin. I used professional associations rosters and staff, as well as colleagues to gain access to the participants. The leaders of the organizations

identified in the study assisted me in locating potential interviewees, facilitating communication, and securing the appropriate interviewing locations.

Interviewing participants for a qualitative study often involves establishing trustworthy relationships with organizational leaders or individuals that the researcher has never met (Seidman, 2013). I blinded the data to protect the identity of the participants and any patient-specific information. I obtained a site agreement from the leaders of the ACO organization specifying the ownership of the data, the exact time of the retention of the study data, and who had access to the information. To ensure clarity, I aligned the described criteria for participant selection with the researcher question of what system change strategies health care managers to meet the ACO quality and cost standards.

Research Method and Design

Research Method

I selected a qualitative method over the other methods because I wanted to understand a phenomenon from the participants' perspectives by exploring meaningful context aligned with the research question (Hesse-Biber, 2015). Long, Marsland, Wright, and Hinds (2014) opined that qualitative research is sometimes necessary, as quantitative studies may not be optimal in analyzing particulars sought by the researcher. My study better aligned with qualitative research because I conducted interviews that incorporated the use of written or verbal words as the research data (Braun & Clarke, 2013). Braun and Clarke (2013) further suggested the use of the qualitative method is used to identify patterns, incorporating and exploring data differences and similarities to produce themes or theories. Alderfer and Sood (2016) opined the qualitative methodology offers insight

and advantages to the health care industry by aiming at securing personal lived experiences of groups or individuals, which is relevant to ACO health care managers.

Wester, Borders, Boul, and Horton (2013) described quantitative research as a method used to generalize the larger population and require different sampling and statistical techniques than qualitative research. Campbell (2014) opined that researchers using quantitative methodology seek to validate findings statistically, are better positioned to generalize findings, or provide findings related to causality. As a research methodology, a quantitative study was not appropriate for exploring what system change strategies health care managers use to implement an ACO.

While health care researchers increasingly use mixed-methods studies (McCusker & Gunaydin, 2015), a mixed methods approach was not appropriate for this study because quantitative research cannot address what system change strategies health care managers used to implement an ACO. Riazi and Candlin (2014) opined a mixed methodology is appropriate when elements of qualitative and quantitative aspects are combined. A mixed methodology was not suitable as this study did not include quantitative research.

Research Design

Yin (2014) defined the case study design as a specific and focused analysis of a contemporary phenomenon in real-life empirical research that explores a contemporary phenomenon, thus enhancing the understanding of the topic when the boundaries of the case are not apparent. Peckham et al. (2014) asserted that the case study design offers the researcher the opportunity to use a variety of techniques to achieve a thorough

understanding of the study topic while allowing researchers the ability to gain theoretical insight from the results. To explore the lived experiences of health care managers in the complex ACO health care environment, I chose the multiple case study design.

Hoonakker, Carayon, and Cartmill (2017) performed a qualitative multiple case study to explore how secure messaging improves the flow of communication and information in primary care clinics. Kothari, Peter, Donskov, and Luciani (2017) used a multiple case study design to understanding how traditional reporting of research outcomes and impacts from five long-term systems-level projects contributed to the value and complexity of research projects. While governmental regulation served as the boundary for this study, individual health care managers may experience the impact of the required standards to their organizations uniquely. Using the multiple case study design for this study was advantageous for exploring the diversity of health care manager experiences regarding what system change strategies were beneficial when implementing an ACO.

I contemplated several available methods of inquiry for this study, including phenomenology, grounded theory, and ethnography. Van Manen (2017) declared phenomenological research targets the lived experiences of the participants, the phenomenological design was not appropriate for this research. I gathered data through interviews rather than observing behaviors that revealed different lived experiences within the same circumstances (Westmoreland, 2017) or extensive field work (DeFelice & Janesick, 2015). Further, my goal was to study the reality of what system change strategies ACO health care managers use to implement successful ACOs, rather than

studying the participants to analyze context-based structures of consciousness (Nazir, 2016).

Grounded theory was described by Chang (2017) as a research design with a theoretical perspective that encompasses a direct goal of collecting real-time data with a focus on actions and situations, while constantly comparing a variety of data. Likewise, Goulding (2017) described grounded theory as a design based on a process of developing new theoretical insights from collected data that is correlated synchronously resulting in alternative frameworks while challenging traditional understanding. Chang opined that grounded theory is particularly useful when the researcher seeks to frame study inquiry focused on a place or health as a concept. Grounded theory was not appropriate for this proposed study as no direct observations were conducted.

Lopex-Dicastillo and Belintxon (2014) posited ethnography includes a focus on a culture of people. Suopajarvi (2015) explained that ethnographic design allows researchers to gather data aimed at performing analysis from more than one voice yet not generalizing study results based solely on socio-cultural backgrounds. The ethnographic approach encompasses a variety of research tools and targets the understanding of contexts rather than descriptions while striving for results that improve undesirable situations (Brooks & Alam, 2015). The ethnographic design was not appropriate because the focus of this study is on what successful system change strategies health care managers used to meet the ACO quality and cost standards instead of cultural interactions or norms.

Rather than ethnographic design, the case qualitative research was more appropriate for this research. Merriam and Tisdell (2016) defined case studies as intentionally selected phenomenon within a bounded system. Because I conducted face-to-face interviews using semistructured, open-ended questions with three specific organizations with a focus on lived experiences of ACO health care managers, the case qualitative research was best suited for this study. In alignment with the data saturation logic of Birt et al. (2016), I used member checking, methodological triangulation, and continued participant interviewing until little or no additional data or potential themes was available from the interviewing process.

Population and Sampling

I chose the stratified purposeful sampling method for this study. Palinkas et al. (2015) described stratified purposeful sampling as a method used to achieve the objective of capturing significant variance versus identifying a common theme. Likewise, Benoot, Hannes, and Bilsen (2016) opined purposeful sampling has the potential to produce rich conceptual models for clinical settings. Because my goal in this study was to analyze system change strategies used by the top-performing ACOs, the stratified purposeful sampling method selection was appropriate.

Because there was no formal algorithm for identifying the exact number of participant interviews or sample size, I followed the sampling philosophy of Yin (2014). Yin categorized purposeful sampling at two levels, broader and narrower. According to Yin, most researchers selecting a sample size at the broader level have only a single instance of a single unit as going beyond may be beyond the study scope and require

more time and effort and additional budgetary funds. In alignment with Yin's recommendations for the broader level and to achieve the aim of this study, I selected three of the successful Pioneer ACOs, as of the close of the pilot study on December 31, 2016 (CMS, 2018a) as the census sampling. The study participants resided in the states of Arizona, New York, and Wisconsin, representing the east, west, and Midwest regions of the United States. A more specific goal for this study was to secure participation from the Pioneer ACO performers on cost and quality standards, in alignment with the overarching research question of this study.

Yin (2016) offered most qualitative researchers will have more than a single instance at the narrower level. Additionally, Yin opined the purpose of qualitative research is to maximize data rather than volume and should end when little or no new information results from additional units. After following the formal Walden procedures for approved research, I interviewed nine health care managers from three of the Pioneer ACOs on cost and quality standards, located in the states of Arizona, New York, and Wisconsin. I continued stratified purposeful sampling until I reached data saturation. Malterud, Siersma, and Guassora (2015) opined qualitative study findings from qualitative researchers could be enhanced by the researcher focusing on the importance of new knowledge gained from the interviews and analysis rather than on the number of participants. Following the guidance of Fusch and Ness (2015), I determined data saturation was achieved through methodological triangulation and when no new data, themes, or coding was available through the interviewing process interviews, related documents or archival records provided by the participant, or field notes. Sampling from

this population pool offered me the opportunity to garner valuable data from professionals with experience in what system change strategies they used to implement an ACO.

Rowley (2014) offered researchers use interviews as a method to gather and analyze data through personal interactions with another individual. To enhance the gathering of rich data specific to the participant's experience and to enhance build trust between the participant and me while encouraging open communication, I conducted the interviews in person versus telephone interviews. Because the interviews occurred at the participating organization's location, interviews took place in personal offices or a meeting room of the interviewee's choice but that met the requirements of privacy and an environment where interruptions did not occur.

Ethical Research

Oye, Sorensen, and Glasdam (2016) opined participants should be recruited on a voluntary basis, understand the research study, and give informed consent without enticement in alignment with the approved IRB guidelines. I obtained informed consent and scheduled the participant interviews after receiving approval from the Walden University IRB to conduct the study. Participants signed a written informed consent outlining the interview procedures, the voluntary nature of the study, risks and benefits of being in the study, privacy, and contact information. I provided no incentives to the interviewees for participating. I communicated with the participants within one week and again one day before the interview appointment to confirm attendance. At that time, I also reviewed the content of the informed consent document.

Most researchers agree that it is morally and legally wrong to conduct research without the express consent of the research participant (Walker, 2013). I respected all participants by informing the individuals and organizational leaders that their participation was strictly voluntary and withdrawal was possible at any time during the interview. Requests were made in person or by telephone, email, and mail. I honored all withdrawal requests immediately, in alignment with the recommendations for ethical and confidential research. I did not influence the participants by offering future professional or personal opportunities for participating in the study. The study did not involve manipulation of the data to benefit the researcher. I worked with the organizational leaders to secure a safe and quiet location that was convenient for the participant to conduct the interview.

West, Usher, Foster, and Stewart (2014) suggested using codes to represent participant's names maintains confidentiality. Seidman (2013) further suggested study data must be filed in a safe and secure place to protect the confidentiality of participants. Initially, I recorded data on paper but stored electronically after transcription on a password-protected hard drive. To protect confidentiality, I blinded participant files and names through a system of reference numbers instead of participant names, using the convention of P1 through P9. The files contain consent forms, recordings, and transcribed notes and interviews. I will destroy both paper and electronic files within five years.

The described formal steps were designed to assure that the ethical protection of participants was sufficient and appropriate. I submitted the doctoral proposal for review by the Walden University Institutional Review Board (IRB) to ensure against human

right violations including physical, psychological, social, economic, or legal harm to the participants. Walden University's approval number for this study is 12-14-17-0577748. The expiration date is 12-13-2018.

Data Collection Instruments

Merriam and Tisdell (2016) offered that optimal study results require interview practices such as selecting good questions, interview preparation, recording, and transcribing the interview data, while Seidman (2013) asserted interviewing research involves the researcher contacting the study participants, conducting the interview, development of a plan to record and transcribe the data, and working with the data to share learnings. Campbell, Quincy, Osserman, and Pedersen (2013) specified semistructured interview data is the foundation of qualitative research. Wahyuni (2012) further suggested using semistructured interviews with organizational experts that are the focus of the study when the researcher is collecting primary data. Based on this guidance, I served as the data collection instrument using nine opened-ended semistructured interview questions designed to gather the lived experiences of the study participants (Appendix A).

Yin (2014) stipulated triangulation adds validity to the study. Likewise, Carter, Bryant-Lukosius, DiCenso, Blythe, and Neville (2014) offered that because only one research method will not adequately ensure the analysis of the problem and opposing explanations, triangulation or using multiple data collection methods enhances the credibility of the results by countering mistakes directly tied to a specific method and may include interviews, observation, and field notes. To achieve methodological

triangulation, I used the participants' interviews, related documents or archival records provided by the participant, and field notes that were beneficial and pertinent to the study.

Following the philosophy of Yin (2016), I produced valid results by appropriately interpreting the study data to accurately mirror and represent the real world of the participants. To enhance the reliability and validity of the instruments, I used methodological triangulation and member checking to assist me in gaining a richer understanding of the research topic and data. Following the philosophy of Archibald (2015) that triangulation is a collaborative strategy to achieve study validity, and as suggested by Birt et al. (2016), I explained to participants member checking would be used to enhance the validity of the data collection instrument and process, to help mitigate bias, and to assist me in reviewing the data results. Detailed steps of what took place before and during the interview as part of the data collection are provided in the interview protocol (Appendix B). Following the interviews in the member checking process, I reviewed the synthesized summary of the transcribed interviews with the participants to assess for correctness and reflection of their perceptions and experiences. Adhering to the specified data collection steps allowed me to optimize the study results of what system change strategies health care managers use to achieve ACO cost and quality standards.

Data Collection Technique

To explore what system change strategies health care managers used to meet ACO quality and cost standards, the data collection techniques for this research were primary data from participant interviews and documents received from the participants.

Interviews were face-to-face and included nine open-ended questions to conduct semistructured interviews (Appendix A). One advantage of the interview data collection technique is that participants may feel the interview is an elongated conversation while allowing the researcher an opportunity to gain deeper insight on data pertinent to the research question while still adhering to the established interview protocol (Ranney, et al., 2015). Ranney, et al. (2015) further offered open-ended questions are used to begin the conversation of each new major topic offering the researcher the ability to control the response variations by asking the same questions, while Merriam and Tisdell (2016) opined the semistructured interview technique affords the researcher the opportunity to address emerging ideas revealed about the phenomenon. In contrast, Xu and Storr (2012) claimed the disadvantage of the interview technique was the number of data collection times required to reach data saturation that resulted in extensive commitment of the researcher's time and resources, as well as the required expertise in analyzing the data to prevent potential bias.

After securing approval from the Walden IRB, I solicited permission to conduct the study through phone and email. Once permission was granted, I worked with the organizational leaders to identify specific employees as interviewees. Upon receipt of the interviewee names, I forwarded an email outlining the informed consent process and requesting the return of signed consents. Next, I worked with the designated organizational leader to schedule the time and place of the interviews. I conducted interviews through strict adherence to the interview protocol (Appendix B).

To ensure the validity of the study findings, researchers use various tools. I selected member checking for ensuring information accuracy and to offer the participants the opportunity to add new data (Birt et al., 2016). Yin (2016) offered member checking is a procedure that allows the participants to review, correct, and improve the accuracy of the data and is a good source for triangulation. I reviewed the synthesized summaries of the transcribed interviews with each participant within two weeks of the interview via email. I completed any requested edits, and the edited synthesized summary of the data was returned to the participant to confirm the changes are correct. I continued the process until the participant acknowledged the synthesized summary of the data was correct. I did not conduct a pilot study due to the limitation of participant time and access.

Data Organization Technique

The formal organization of my study data was important to ensure participant confidentiality and security while having a significant contribution to the analysis and results (Yin, 2016). Lee (2014) stressed the criticality of data organization, especially when using multiple data sources, while Yin (2016) opined data organization contributes to the ease of interpretation. Storage of all research data including audio records, interview transcripts and related documents, and electronic consent form was stored securely for five years through a password-encrypted computer file or a secured file cabinet. The primary data folders were organized by the participants (i.e. labeled P1 and P2), with sub-folders housing email correspondence, consent forms, and interview transcripts. After five years, I will destroy all data to ensure participant confidentiality.

Data Analysis

Data analysis in a doctoral study is a critical component of scholarly research. Patton (1999) opined the qualitative researcher should strive to be pro-meaningfulness versus anti-numbers while fully understanding qualitative research is a creative process that is dependent on the instincts and conceptual capabilities of the analyst. Because qualitative multiple case study has been shown to be challenging, it is essential for the researcher to establish a set of clear and succinct data analysis guidelines to reference and follow during the study (Baskarada, 2014). Data analysis for this study occurred utilizing the case comparisons with methodological triangulation (Cope, 2014), using the literature review, participant interviews, and data provided by the participants. To further achieve a meaningful and structured systematic review, I conducted several different review levels to address the qualitative analysis complexity of this study, including the interview transcripts and documents, correlation to existing and new literature and the GST conceptual framework, software analysis tools, and thematic coding systems.

As the study researcher, I initially read and reread the interviewee transcripts to gain an overall meaning of the data while simultaneously writing marginal notes of the main themes recognized (Yazan, 2015). Following interview transcript review and study, I used Yin's (2014) five analytic techniques to develop themes.

1. Pattern matching may assist in determining the internal validity and may occur when the empirical and predicted patterns have commonality.
2. Explanation building may result when my subjective narrative conclusions are revealed using correlation from external sources.

3. Time-series analysis may provide me with the ability to track changes over time.
4. Using logic models if complex cause and effect events occur over an extended time.

Also, I used the five analytic phases to develop the appropriate themes from the study data (Yin, 2014) by

- compiling data into a database;
- disassembling data through a formal coding procedure;
- reassembling the data to categorize or group the data.;
- interpreting the reassembled data; and
- drawing conclusions from all study data.

The analysis consisted of creating lists of experiences, clustering experiences into themes, and construct descriptions of the themes. I organized categories in alignment with the problem statement, central research questions, and interview questions (Appendix A). Following the guidance from Yin (2014), I used the data analysis results and intercoder agreement, peer review, and member checking to triangulate and confirm data accuracy and theme development. These data results assisted me in creating groups of data using codes aligned with themes from codes with a goal of reducing unnecessary themes so the significant themes can evolve for my analysis and conclusions. I considered limitations and delimitations for any conclusions. I further expanded the study by identifying the implications for social change and suggestions for follow-up studies. I used the holistic processes in the data analysis section to answer the central

research question and to provide a better understanding of the lived experiences of health care managers who successfully implemented an ACO using system change strategies to meet quality and cost standards.

Reliability and Validity

Several scholarly authors described reliability and validity. Munn, Porritt, Lockwood, Aromataris, and Pearson (2014) opined reliability in qualitative research is synonymous with dependability. Yin (2014) described reliability as the consistency and repeatability of the research procedures used in a case study. Merriam and Tisdell (2016) posited researchers achieved validity through a variety of approaches that focus on the conceptualization of the study and how data is collected, analyzed, interpreted, and presented. In the following section, I explained the reliability and validity guidelines I used for this doctoral study.

Reliability

Evaluating the reliability of a study involves the researcher determining if the research included the appropriate selection and application of research methods as well as assessing the integrity of the findings or its dependability (Noble & Smith, 2015). Hancock, Amankwaa, Revell, and Mueller (2016) opined there is little literature that addresses how qualitative researchers attain data saturation. In contrast, Morse (2015b) argued dependability indicates the researcher reached data saturation that produced rich data through the interview process by focusing inquiry and providing enhanced opportunity for data replication that resulted in the theoretical aspects of inquiry. Achieving dependability in a study is a prime aim for the researcher as external

evaluators seek to determine the worth of the qualitative research (Morseb). Additional tools to ensure dependability in this study included member checking, an interview protocol (Appendix B), and data saturation to enhance the dependability of this study. Allowing participants to review the synthesized summary of their data assisted in the assurance of the accuracy or validity of the study. The interview protocol ensured the study met ethical standards. Data saturation built the theoretical aspects of the inquiry by enhancing the richness of the data, allowing for depth in the analysis of the topic.

Validity

Cope (2014) offered that a researcher achieves validity when the research results indicate the study measured what it was intended to measure. Anney (2014) expanded this definition by asserting that researchers can prove validity through credibility that refers to the reader's confidence as to the honesty of the results. Moreover, Noble and Smith (2015) asserted quality researchers address study preciseness by implementing suggested credibility strategies.

Credibility. A credible study indicates the researcher to appropriately gather and interpret the data, resulting in accurate study findings that represent the study environment (Yin, 2016). The author specified study credibility should occur during the design of the study and after the completion of data collection. Strategies to ensure the credibility of the study findings included triangulation of the data and member checking.

Triangulation involves gaining access to three different sources to strengthen the credibility of a study (Yin, 2016). Archibald (2015) opined the triangulation process ensures the validation of study findings through a collaborative approach. Merriam and

Tisdell (2016) further asserted that triangulation is an optimal strategy for improving the credibility or internal validity of the research.

Morse (2015a) defined member checking as an interactive process involving the researcher and the collected data with the intent to obtain a more sophisticated level of accuracy. Harvey (2015) stressed that timeliness of the transcript review is critical to avoid the participant experiencing memory issues and disengagement. I ensured the study participants had an opportunity within two weeks of the interview to review and provide feedback of the data gathered during the interviews by utilizing the member checking procedure to improve the accuracy of the study findings. I utilized the participants' interviews, related documents or archival records provided by the participant, and field notes that were beneficial and pertinent to the study to achieve triangulation in this research.

Transferability. Anney (2014) opined that transferability of qualitative research results is a direct consequence of the reader's ability to implement the same study in a different scenario. Moreover, Morse (2015a) indicated qualitative research shows the capability to transfer the study findings to another population through isolating the research data and reassembling the information into a new whole that allows for new insights, interpretations, and identification of emerging theories. Cope (2014) offered transferability occurs when the study findings have meaning to persons not involved in the study as well as the readers' abilities to interpret the results with their empirical frames of reference. I used the data collection and analysis previously described, adhered to the interview protocol (Appendix B), and maintained robust documentation and

thick descriptions detailing facts about the study population, sample, method, design, and context that may assist others in making educated decisions about the transferability of the study.

Confirmability. Cope (2014) found the importance of the researcher being able to confirm the study findings were a direct result of the collected data, while Anney (2014) opined the researcher achieves confirmability when other researchers can solidify the study efforts and results. As the researcher of this study, I ensured confirmability by creating a reflexive journal to assist in explaining the steps taken to interpret the study data and steps I took to prevent bias in my synthesized data summary interpretation (McDermid, Peters, Jackson, & Daly, 2014). The journal included documentation of events, personal reflections, procedures for checking and rechecking the data throughout the study. To further enhance the confirmability of my study, I used member checking and triangulation. I accomplished confidentiality through secured maintenance of all study data and numeric identifiers of the organization names and participants. I informed participants that findings would be shared only through blinded reports.

Data saturation. Ensuring data saturation aids in confirming study reliability and validity. According to Fusch and Ness (2015), the researcher's inability to achieve data saturation has a direct influence on the quality of the research results and hinders the reliability and validity of the findings. In contrast, Burmeister and Aitken (2012) posited data saturation is not strictly about the volume of interviews, but rather about the depth of the data. Using my judgment and experience (Tran, Porcher, Tran, & Ravaud, 2017), I achieved data saturation when I was unable to learn new knowledge from additional data

collection (Colombo, Froning, Garcia, & Vandelli, 2016). My goal in this study was to explore what system change strategies successful health care managers used to meet ACO quality and cost standards. I continued participant interviews until I no longer received new information from the interviews. I considered the research goal accomplished when an interview offered less than 5% new concepts or pertinent data as compared to previous interviews of the population study (Mueller, Lohman, Thul, Weimann, & Grill, 2010).

Transition and Summary

In Section 2, I addressed the role of the researcher, the selection of the method and sign aligned with research questions, justifications, and rationales for those selections. I also defined the study population, justified optimal sampling strategies, and explained the means of data collection including the researcher's potential bias. In Section 3, I provide the study findings and how the results align with the conceptual framework and research question. Section 3 contains a discussion of how the doctoral study applies to professional practices and what implications the study results present for change. I provide a discussion regarding my reflection on the study. Lastly, section 3 contains a discussion of the social change implications and recommendations for future research.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore system change strategies health care managers used to implement an ACO to meet quality and cost standards. The data came from semistructured interviews with nine health care managers from three Pioneer ACO organizations in Arizona, New York, and Wisconsin, and review of company documents. Based on the findings, the participants viewed system change strategies as best practice to improve ACO quality and cost standards implementation. Section 3 includes the application to professional practice, implications for social change, and recommendations for action. Section 3 also includes a recommendation for further research on ACO implementation. Finally, I conclude Section 3 with my reflection on the doctoral study process and concluding remarks.

Presentation of the Findings

The overarching research question for this qualitative multiple case study was: What system change strategies did health care managers use to meet the ACO quality and cost standards? The multiple case study design included data collected from semistructured interviews with nine health care managers from three Pioneer ACO organizations in Arizona, New York, and Wisconsin, and review of company documents. The interview findings included comparison of company documents/data that were triangulated to gain an in-depth understanding of system change strategies used by the health care managers. To preserve the confidentiality of the participants, I used alphanumeric codes P1 through P9 to identify participants. From the data analysis and

coding process, three themes emerged: (a) leaders with system change strategies improved successful ACO implementation, (b) leaders who implemented electronic HIT improved successful ACO implementation, and (c) leaders with care management system change strategies improved successful ACO implementation.

Theme 1: Leaders with System Change Strategies Improved Successful ACO Implementation

The first major theme that emerged from the data analysis and review of company documents was leader's system change strategies improved successful ACO implementation. All nine participants' system change strategies improved the leader's ability to successfully implement an ACO. In alignment with the GST conceptual framework of systems thinking, all study participants (100%) opined that a critical component of their success was the leaders' ability to implement system change strategies that resulted in reduced waste, complexities, and clinical variations. The central theme of systematic leadership, both administrative and physician, emerged from the robust data analysis and served as a direct response to the research question on what system change strategies health care managers used to implement successful ACOs. All participants opined creating and implementing an ACO is a long process and occurred over several years, implicating the importance of accepting failures but continuously improving through innovative system changes.

All participants identified the importance of changing the leadership culture through innovative system changes strategies. Participants referred to this paradigm as "from managing health to improving health," "from fee-for-service to fee-for-outcomes,"

"from low to high patient care coordination," "from episodic to longitudinal care," and "from a primary care model to a team-based or multidisciplinary approach." Two participants (P8 and P9) shared the culture change was so substantial the leaders changed their organizational mission statement to impress upon the providers, staff, and community their commitment to managing the quality of a patient's life, not just health. P2 pointed out that the leaders changed the name of their organization to represent the importance of the new system paradigm and to emphasize health care transformation as an organizational goal that will be systematically engrained, improved, and sustained. P8 expressed "the corporate ACO model was not a new product or service, not a project that was done on the side to achieve value-based purchasing incentives, but rather the future of the organization's healthcare service delivery model." P9 shared that their organization added a leadership motto of "navigating the corridor," conveying the complexity and obstacles that present challenges which managers have to navigate while staying on a straight path to the ultimate goal of improving patient's lives. P9 further expressed, "As health care leaders, we have to change our paradigm of viewing finances from traditional health care budgeting driven by patient volume and revenue based on the rate increase to the reduction of utilization and improved patient health status."

The concept of physician leadership was an important theme. Of the successful nine participants interviewed, all were a part of an integrated delivery system and lead by an administrative role, although all participants stated the importance of developing strong and engaged physician leadership. Moreover, the medical staff leadership models varied. The study participants revealed two system change strategies to address

physician leadership. P5, P6, P7, and P8 opined it was preferred not to have one physician leader, but instead instill several actively practicing physicians to enhance and spread the breadth of engagement, knowledge, and ability to implement and sustain improvements. These four participants had recently implemented a model that paired a physician with an administrative leader at each site to achieve the ACO quality and cost standards. P1, P2, and P3 shared a model of one provider in a physician leader role who lead important clinical initiatives and served as a medical staff and community spokesperson, in partnership with other administrative staff.

Glanzman (2017) discussed the importance of identifying champions, not only within the medical staff, but at all organizational levels, and once staff are supportive and engaged in the cultural shift to continually use rapid cycles of improvement while being diligent in ensuring that every patient received the right care at the right time that reflects high quality and low costs. Likewise, Haas, Kaplan, Reid, Warsh, and West (2015) opined that driving this cultural change could be the most significant challenge for health care managers in directing efforts in implementing successful strategies for improving quality and reducing costs.

Another response from 100% of the participants was the importance of the leadership team to intentionally design care transformation around the patient's needs rather than the needs of the participating provider or physician group. All of the participants advised physician partners beyond the primary providers to specialty providers was essential to capturing the patient's continuum of care and costs control through preventative measures. At the individual patient level, all participants stressed

the importance of understanding the patient's health status, whether preventive services or chronic care management was needed, and the associated costs. P2, P7, P8, and P9 offered, in addition to primary care physicians, physician leaders in specialty areas were needed to assist in spreading the preventative medicine culture. These four participants created a system change wherein specialty physicians assisted with the identification of medical conditions early in the patient's disease process and then referred the patient to a primary care provider for clinical intervention, thus preventing additional costs of treatment and hospital stays.

Specialty physicians were engaged to further reduce costs by developing best practices around services and products such as imaging studies, medications, and surgical implants. P3, P4, P5, P6, P7, P8, and P9 felt building strong relationships with specialty physicians, especially cardiology, oncology, and orthopedics were instrumental to their success in controlling costs. In addition to this patient population, P3, P7, and P9 found opportunities through the reduction of imaging studies. Through the "Choose Wisely" campaign, providers were engaged to eliminate the duplication and unnecessary use of radiographic scans, while reducing patient exposure to harmful radiation. P3, P4, P5, P6, P7, P8, and P9 reflected on their progress in these specialty areas as "low hanging fruit" and cautioned there remain many additional challenges related to managing patient populations that will require administrative and physician leadership to successfully implement an ACO and to meet the quality and cost standards. From a leadership cultural view, all participants found educating providers on the new health care reform paradigm a necessity but daunting task, but even more difficult without hard data to

share. P9 offered how he approached providers who were resistant to the cultural change by stating, "You know, sometimes it's not about making more money. Sometimes it's about not losing more money. If the world changes around you and you don't change with it, perhaps you'll be left behind."

In support of the importance of physician partnerships, all (100%) of the study participants stated that leaders had learning moments through the identification of high-cost patients, referenced as the "80/20 rule." For example, all participants identified end-stage renal dialysis patients as a high-cost patient segment. P1, P2, P8, and P9 opined successfully managing these challenging dialysis patients required contributions from the primary and specialists to leverage the strengths of varying providers in improving patient care outcomes and overall resource utilization. As an example, P8 and P9 used an innovative financial incentive to motivate partnering specialty providers offering services for end-stage renal disease patients, who were found to be seven times more costly than other patients. The health care managers created financial incentive programs with the dialysis center leaders and nephrologist based on improved outcomes for workflows, increased patient engagement and communication, and the use of registries and dashboards to enhance process measures. The program included an alert to the specialists when a patient showed up at the registration desk in the emergency department, so the providers could personally meet the patients and troubleshoot, understand the patient's story, and divert them to a more appropriate setting.

Ouayogode, Colla, and Lewis (2017) found that no particular organizational structure was directly linked to the success of ACO leaders' ability to earn financial

savings. However, Phipps-Taylor and Shortell (2016) offered that successful ACO leaders are dependent on the leaders' ability to change physician behavior. Phipps-Taylor and Shortell (2016) proposed there are several ways to motivate physicians to become leaders, including but not exclusive to financial incentives. Additional contributory research by Ouayogode et al. offered that approximately 40% of ACO leaders utilized financial incentives to motivate physician performance. Moreover, Lewis, Tierney, Colla, and Shortell (2017b) found successful ACO health care managers may likely be dependent upon developing and growing strong relationships and affiliations among health care providers based on beneficiary attribution, needed resources, and reductions. In alignment with the participants' responses regarding primary and specialty provider system change processes and financial incentives, Herrel et al. (2017) found ACOs staffed with primary care providers used more hospital care and could not be associated with lower use and had not shown achieved savings higher than less primary care focused ACOs. Biggerstaff and Short (2017) found through chart reviews that approximately 40% of patients referred to a specialist did not keep their follow-up appointment, thus supporting the importance of physician leadership and partnering.

Triangulation of the participant interviews, the literature review, and documents provided by some participants, there is evidence that early savings are easier to attain than in latter years of the ACO. Participant P8 and P9 shared a power point detailing their ACO overall financial savings. The total five year savings for CMS was $75 million, with $35 million representing the ACO shared savings for P8 and P9. Of

significance, was the decline of savings over each year: PY1 - $14,001,887; PY2 - $13,145,185; PY3 - $8,428,113; PY4 - $0, and an estimated share of $6.9 million for PY5.

Another key area identified for the ACO leaders was the criticality of patient engagement. P4, P5, P6, and P7 shared their success with a system change of providing patients with a financial incentive. Pivoting on the importance of preventative care and wellness screening, ACO patients were encouraged to complete an annual wellness exam with no co-pay in addition to receiving a $25.00 check as a reward for completing yearly individual wellness screenings. P7 offered, "The patient incentive program provides a method to motivate patients to be proactive in their healthcare as under the ACO structure health care professionals are not allowed to change the patient co-pays, benefits, or to restrict providers." P4, P5, P6, and P7 felt the patient incentive program was successful through experiencing improvement in the quality standard of annual wellness exams.

P1, P2, and P3 stated that another challenge of patient engagement was the "snowbird" patient population. They stressed snowbird patients are a regional ACO trait and do not effect all ACOs. P6 commented that there are some snowbirds in their ACO patient population, but the number was low enough that it had not emerged as a priority. The challenge experienced by P1, P2, and P3 evolved around containing health care delivery service costs when patients received care out of the ACO network. The size of the population was significant enough that the ACO health care managers had made efforts to work with providers in the distant geographical area on service efficiency and cost reductions with limited success. The research of Zheng, Lin, White, Pickreign, and

Yuen-Reed (2018) and Glanzman (2017) supported the study findings on patient engagement. Zheng et al. offered patient leakage presents barriers with care coordination and increased expenses to the ACO and patient, while Glanzman opined the patient plays a vital role in the success of value-based programs through engagement with mutually agreed goal alignment.

All of the study participants emphasized leader's commitment that improvement initiatives should address their entire patient population, not just ACO beneficiaries. Seven participants (P1, P3, P4, P5, P6, P8, and P9) discussed the frustration of having multiple payer contracts that include different outcome measures and no standardization, thus making system change strategies difficult. All participants presented barriers with obtaining electronic, current, understandable, accurate, and complete data. Four participants (P1, P3, P6, and P9) shared that although CMS provided claims data for the identified ACO population, the data was lagging and did not always include performance data on non-ACO participants. P9 shared, "for us to be successful, predictive analysis is needed so proactive prioritization and process improvement can be instituted to coordinate care, engage patients, manage patient populations, and improve quality."

P1, P3, P4, P5, P6, P8, and P9 found the number of system change improvements overwhelming and difficult to prioritize. P9 explained the challenge of deciding when not to engage in improving patient care but rather patient compliance. Specifically, P9 provided reasoning for the organizational decision to not conduct surgery on patients with a high body mass index (BMI) based on evidence driven literature that showed this patient population had higher risks and poorer outcomes. Thus, rather than capture

reimbursement for the procedure, the intent was redirected to engage the patient in loosing weight so that the risk of undergoing the procedure would decrease. P9 explained that it is unlikely that these proactive and risk reducing measures could be reimbursed or reflected in the shared savings outcome measures. P9 shared the following.

> That's what we discovered, was that the longer you provide care management for people, the longer you keep them alive, and the longer the cost curve continues to grow and/or flatten, because other things happen to them in life that you can't control. It doesn't go up, but it doesn't go down much. It kind of stays flat after a while in the same cohort that you're managing. People come and go and the scales change. It's still the right thing to do.

All participants shared the leaders' challenge that performance improvement efforts were more financially rewarding in the first years than the latter years of the Pioneer ACO demonstration pilot. P1 shared, "because most participants made money each year, it only became apparent after they were able to see a trend over multiple years that the ability to increase shared savings would present more challenging and require innovative and creative strategic plans toward variation and utilization as each year passed." P9 added, "we discovered that what we were really doing was a really good job of managing their congestive heart failure, but we can't really manage their lives. Other things happen. If you live long enough, you will probably get cancer."

Seven participants (P1, P4, P5, P6, P7, P8, and P9) felt most of the system change efforts improved patient population health, but can not be matched to a specific

improvement project and tends to take years to reflect in improved measures. The challenge faced by the ACO health care managers was the ability to show quantitative data to increase shared savings and to justify the intense resources needed to identify, develop, and implement multiple initiatives. P6 commented, "if we can't measure, can't report, then it doesn't exist, and we can not get paid for the money saved."

In addition to insufficient quantifiable and measurable data, obtaining data that was reliable, accurate, and complete was a repeatable concern throughout the literature review and supported the findings of this study. Like the participants, Glanzman (2017) found having the ability to receive complete payer claims data is essential to grasping the cost drivers within episodic care. Finison et al. (2017) suggested developing comprehensive measures that show performance for the implementation of value-based and incentive-based payment systems may be necessary for health care manager establishing payment reform programs but difficult to identify a single measure to reflect the goodness of utilization, cost, and quality measures given the multitude of varying characteristics reflecting a whole patient population. Likewise, Finison et al. emphasized the criticality of establishing a measure that captures the goodness of performance across all payers to assist in understanding underlying drivers of subpopulations, such as social support services.

Performance data that was provided by the participants revealed the system change strategies resulted in successfully implementing an ACO to meet the quality and cost standards. As of the end of the Pioneer ACO pilot program, P1, P2, and P3 had a financial gain of approximately $11 million and an overall quality score of 91.86%. P8

and P9 experienced an estimated financial gain of $35 million with an overall quality score of 95.16%. In support of the importance of population management to ACO success, I reviewed documents, tables, and spreadsheets provided by the participants that revealed improvements as a direct result of the system change strategies. As a whole, the Pioneer ACOs were able to improve the health of the ACO beneficiaries in key clinical areas: care coordination, diabetes, cardiovascular disease, and preventive care. P8 and P9 provided a power point that showed improvement in body mass index (BMI) screening and follow-up, hypertension control, and depression screening, with diabetes control remaining neutral for the 5-year period. P8 and P9 emphasized throughout their documents the importance of the ACO HIT strategy, particularly targeting a comprehensive program that addresses population health and care coordination operational needs.

Theme 2: Leaders Who Implemented HIT Improved Successful ACO Implementation

The second emergent theme from the study findings was that leaders who implemented HIT improved successful ACO implementation. Nine (100%) of participants in this study used some form of electronic medical records. Throughout this research, all participants presented a common theme that connectivity to the same EHR presented challenges and benefits. All participants discussed that ACO participation required additional resources and expanded sophisticated exchange of electronic health data across participating organizations to manage the patient population.

P3, P7, P8, and P9 voiced concerns and challenges getting all providers on the same informational technology system. P1, P2, P4, P5, P6, P7 participants emphasized the difficulties of providing technical assistance to the non-employed providers. P3, P8, and P9 voiced concerns about the cost to non-employed but ACO providers to obtain and implement electronic medical records. P3 mentioned the following.

> A single EHR would just be a game changer. If you have a single EHR you can design care management so much easier. You could just get so much further faster. If I had a do over, I would probably start there and say let's just pony up and make the investment, and be done with it.

Documents provided by one participant revealed the overall effect the use of multiple EHRs had on performance for all beneficiaries. The lack of a multiple EHR resulted in reduced performance for care coordination, particularly in the diagnosis of diabetes, cardiovascular disease, and preventive care. These results support the concerns and challenges expressed by all participants of achieving one enterprise EHR for the individuals participating in individual ACO programs.

Supportive research regarding the challenge of HIT included Wu, Rundall, Shortell, and Bloom (2016) who conducted a study in 2013 to assess health care HIT in early adapters of ACOs. Wu et al. concluded HIT development was slow, tedious, and challenging. The authors also offered ACO health care managers were more likely to successfully implement HIT to support quality measurement than longitudinal patient care plans. Another significant finding from the study was only 36.4% of the participating ACOs could integrate inpatient and outpatient from non-ACO providers,

and only 26% of the ACO health care managers possessed the capability to perform predictive analytics and risk stratification. Of importance, the authors found the technology requirements varied amongst using data warehouses or software vendors to meet the organizational and patient needs. Per Wu et al., the conceptual understanding of these programs differed based on ACO maturity. More recently, Heisey-Grove and King (2017) found physicians' alignment with a Pioneer ACO were more likely to utilize HIT to improve quality of health care services.

Participants stated the use of the current HIT helped the leaders gain a deeper understanding of how to measure quality and share individual provider and group performance (P2, P3, P6, P8, and P9). All participants struggled with capturing and analyzing electronic data from community partners, such as nursing homes and long-term care facilities. P1, P2, P4, P5, P8, and P9 shared the capability to obtain data from primary care providers was more mature than data from specialty physicians. Primary care providers received the majority of resources given the ACO quality measures were mostly directed at preventative patient care. P8 was working with primary care providers to create an electronic platform to engage the specialty physicians in referring patients to their primary care provider for preventative care. P8 and P9 shared organizational documents revealing the ACO network EHR usage went from 42% to 92% (amongst 82 different EHRs) over a three-year period.

Other participants shared electronic HIT had progressed to where the information was more defined, therefore allowing health care managers to prioritize based on outcomes and cost and to direct limited resources (P3, P6, P8, and P9). These four

participants used other electronic tools to provide gap analyses on a concurrent basis for preventative measures. HIT attributes included hard stops in the electronic medical record, reports built to assist providers in identifying documentation gaps, and provider alerts of patients entering the emergency department for care or hospital readmissions.

All participants shared the importance of access to HIT data for clinical decision-makers to understand the transition from traditional health care budgeting based on patient volume, review, and rate increases to a focused view of patient utilization and health status. All participants emphasized the importance of patients being informed and educated about their care and that providers should be given data to help providers assist patients in their care decisions. P7 described their health team is presently implementing software to provide cost data to providers so that they can grasp a better understanding of the cost of care to a patient. P7's impetus was providing physicians with the knowledge of the cost of a single test versus a historically established order panel to allow clinical judgment as to whether the other tests on the order panel are significant or important for the patient's condition or disease management. Another goal of P7's organization was to provide physicians with the cost of pharmaceuticals to assist in determining whether a generic or alternative drug would equally benefit the patient. P7 described the development of a four-quadrant analysis tool to assist the physician in analyzing medications and treatment from "reduced cost-minimal outcome" through "high cost–maximum outcome" with an intended goal of "reduced cost-maximum outcome" for the patient.

Similar to these research findings, Glanzman (2017) emphasized patients lack education of the cost when making health care decisions. Schiavori et al. (2016) found integrating price information into clinical decision-making informative aided in assisting patients to make educated financial decisions about specific treatments and overall patient care choices. According to Schiavori et al., the primary care physicians who received the cost information for one year before the study expressed providers should have the needed cost information and, based on their clinical knowledge, are the best discipline to discuss patients' concerns surrounding out-of-pocket expenses rather than emphasizing provider ordering protocols.

In addition to expanding patient and physician access to cost information, five participants (P4, P5, P6, P7, P8 and P9) shared the telehealth program is a next step in leveraging community resources for patient access. The five participants expressed telemedicine could contribute to improved outcomes, particularly for mental health patients due to insufficient community resources. These efforts are in alignment with current literature that supports telehealth is becoming more popular among health care providers (Rose, 2016). P8 shared a recent telehealth example for eye exams. Providers were currently using Retina View, a technology used to perform telehealth services at the PCP practices to conduct the diabetic retinopathy screening without the requirement of having to send a patient or give the patient a referral to see an ophthalmologist. Once the exam is completed, the clinic staff pushes the image to a network of retinal specialists, and within two hours, the physician office staff receives a report that goes straight into the PCP office EMR software.

Increased communication and data sharing was also a priority for all the ACO health care managers when working with the varying types of patient populations. Technology tools could offer multiple benefits to patients and enhance performance results for ACO health care managers. P8 and P9 indicated these advanced tools can assist with patient education, reminders, and care monitoring and provide alerts to the ACO's providers when the patient appears to have deviated from the established plan of care. Examples of technology provided by the participants included segmenting how the patient wishes to be contacted (i.e. texts, phone calls, emails, in-person, or through special needs technology).

Theme 3: Leaders with Care Management System Change Strategies Improved Successful ACO Implementation

The overall third theme that emerged from the data analysis was leaders with care management system change strategies improved successful ACO implementation, in alignment with the study research question of what system change strategies were used to improve ACO quality and cost standards. GST is particularly relevant to this finding as this emergent theme reflected the complexity and inter-linkage of how system change strategies lead to the successful implement an ACO. All participants implemented system change strategies for care management programs to manage patients through the continuum of care, although the level of maturity and tactics varied. All participants used a risk stratification process to identify high-risk patients.

Although all participants described a care management program, only P8 and P9 detailed a care management model that extended from the identification of the patient

through the patient's continuum of care. The program described by P8 and P9 consisted of pods with a registered nurse assigned 800 patients with referral options to additional or specialized services if needed. Not every ACO patient is assigned a care manager but is attached to one of these pods to ensure the patient is meeting program requirements around care planning and screenings. The care management extends to nursing homes, palliative care, housing, legal support, and specific chronic management programs that include disease specialists such as end-stage dialysis, diabetes, and heart failure. The goal of the program was designed to use technology to engage the right patients at the right time to address gaps in care, with the intent of reaching every patient, although patient contact varies based on patient needs. Although not entirely implemented due to recent acquisitions and mergers, the participants were making progress towards centralizing the program.

Once recognized, an enrollment person trained in customer service contacts the patient to begin enrollment and to conduct an assessment to determine gaps. The care management program was recently changed to target what is top of mind to the patient, such as housing, behavioral health needs, and being homeless. These needs are made a priority and addressed before the care manager begins treatment of the patient's medical condition. The enrollment staff then assigns the patient to a care manager who reviews the patient's file and pulls in needed resources to determine or finalize the patient care plan. The assigned nursing pod then manages the care plan for usually a 6 to 9 month period for progress to goals. The patient goes into a monitoring program to prevent relapse after achieving care plan goals.

During the monitoring period, the participants use technology to send alerts to a patient's designed care team whenever the patient presents or discharges from the hospital or emergency department to a nursing home or self-care. This notification allows the care management staff to engage with the patient early to ensure understanding of discharge instructions and follow up, and to divert emergency department utilization that essentially drives cost reductions over time. The participants are further enhancing patient communication methods through technology that allows interactions with patients via secure text that has proven to increase patient engagement by raising concerns and completing screening through web-enabled solutions like their phone.

Six participants (P4, P5, P6, P7, P8, and P9) placed a care manager in the hospital emergency departments to assist in proactively determining the appropriate level of care for patients post-discharge and target preventable hospital admissions and readmissions and three are making plans to do so. All the participants applied for a waiver of the Medicare payment mandate that a patient has a 3-day inpatient hospital stay before transferring to a nursing home. The waiver allowed the participants the agility to redesign care management programs in innovative ways to meet individual patient needs, reduce inpatient admissions, thus reducing costs while improving the quality of care and patient experience. This finding was similar to research conducted by Malinak, Press, Rajkumar, and Conway (2017) that suggested CMS leaders waived rules and requirements to encourage ACO participation that allows opportunity for easier success. In alignment with this philosophy, authors of current literature suggested the patients

with high emergency department utilization could be a sign of uncontrolled chronic disease and a productive environment to provide focus on higher-risk patients, appropriate patient placement, and reduction of utilization costs associated with these patients (Thorsteinsdottir et al., 2017; Yun, Aaronson, Israel, Rao, & Lee, 2017).

P9 shared the care management program was designed to have a three tiered approach and staffed with a navigator and a social worker. The first tier revolves around identifying high patient utilizers who could receive services in different and more appropriate settings. Analytic tools assist in capturing patients who are frequenting hospital and emergency department services or for repeated admissions within the last twelve months. Every fifteen seconds the technology searches the emergency department registration. Once flagged, the patient is referred to the navigator or the social worker, depending on the patient's needs. The navigator refers the patient to the centralized care management staff upon completion of the assessment and moves onto the next identified patient. The centralized care management staff then begin the process of finding the resources identified by the navigator or social worker, such as transportation, shelter, medication, etc.

The second tier reflects ensuring every patient is called post-discharge. Patient segregation occurs at three levels: (a) patients that are high risk for hospital readmission based on clinical diagnosis or disease, (b) patients that are unlikely to be readmitted but need assistance with specific needs or services such as education on how to use or clean clinical equipment, and (c) patients with no clinical challenges but need to be checked on and to be reminded the staff are thinking about them. Further, the organization has

instituted specialized care management programs to address the costliest and more clinically complex patients such as end-stage renal disease, behavioral health, heart failure, diabetes, asthma, and chronic obstructive pulmonary disease (COPD). The participants shared this population equates to about 3% of the entire population and require the higher level of attention from the care manager. The participants summarized the key to managing resources is to touch all patients, but not in the same manner, only at the appropriate navigation level.

Another system change strategy that resulted from the data analysis was the implementation of system change strategies in the provider office workflow and expansion of existing multidisciplinary staff. All participants shared a key to their success was that leaders worked with both employed and non-employed providers and their staff to redesign patient and office workflow to align with care management efforts and to support a pathway from a primary level to a multidisciplinary team approach. Five participants (P2, P3, P4, P5, and P8) described a team-based approach driven by the health system leaders rather than the ACO leaders, with increased support staff relocated to the provider offices. The job roles of medical assistants and licensed practitioner nurses were elevated to reflect additional responsibilities, such as being scribes in the exam room and using decision support tools to be empowered to close care gaps independent of the physicians being in the room. Responsibilities were expanded and duties varied among new skill sets of entering provider orders, writing prescriptions, and closing the patient visit. The participants felt the redesign allowed the provider to improve personal relationships and have more face-to-face time with patients.

The five participants added that services continue to be a challenge and have built several models to adapt to the ever-changing needs of providers, staff, and patients. One example provided by P8 was using models such as the International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT) and the InterQual Criteria. The IMPACT was described as a collaborative approach to address depression and involves a multidisciplinary approach amongst the patient, and possibly a registered nurse, social worker, PCP, and a mental health professional to develop and administer a plan of care designed specifically to the patient's condition. The InterQual Criteria was used to provide the care team with evidence-based guidance on how to appropriately and effectively treat and manage patients presenting with both medical and behavioral challenges. Successful strategies included the formation of partnerships with community "minute" clinics, both to identify mental health patients for referral and to instill mental health professionals on site to expand mental health access to their patient population. The goal of these additional models is to leverage the existing network of providers and prevent using different standards while assisting in controlling utilization regarding costs like emergency department utilization and preventable hospital readmissions and admissions. The office practice workflow redesigns were complementary to the overall systematic care management program.

All participants of this study highlighted the importance of improved medical care coordination, enhanced provider connections, and system navigation as described in previous sections of this study. P1, P2, P3, P8, and P9 developed a nurse call-back program with the goal of to provide personalized support and education to the patient

while monitoring patient progression, compliance, and needs as they progressed through the continuum of their health status. Patient engagement tactics included phone calls or in-person visits during the patient's visit to the provider's office. P7, P8, and P9 recently had started home visits for identified high-risk patients to aid in the assessment of the patient's home environment and needs, and P3 and P6 are in the process of achieving a home visit program. P8 and P9 are continually working on enhancing multiple electronic tactics of communicating with patients, including the use of texting and other purchased computerized applications such as Emmi.

P2 and P3 shared the ACO had marketed the call center program throughout the community with the purpose of encouraging patients to call when needing care so that a registered nurse could assist in guiding the patient in seeking the appropriate level of care. Examples provided included helping the patient with a provider appointment the same day, receive urgent care services, or being directed to the hospital emergency department, or possibly staying at home with rest. Emergency department visits were avoided using these approaches.

One participant (P8) shared a newly created peer-to- peer program that matches patients with specific medical conditions with another patient that has achieved success in controlling the same or similar medical condition. Profiling patients ensure individuals share the same medical challenges and are coming from a similar demographic, background, ethnicity, and issues. The support group is monitored by clinical folks so that the interactions are relevant and includes appointment reminders, nutrition suggestions, and lifestyle changes. The results from the program after six months

suggested their A1C levels dropped by an average drop of at least one point. P8 shared, "the program supplements existing offerings but takes it to the next level when they can speak with a colleague, or someone that they feel is within their same level."

According to the participants, all these intense resources enhanced the patient experience, both in satisfaction and in quality outcomes. One participant highlighted the goal should change from "care management" to "hospitality management." The participant described care management as having all the right disciplines on board and working towards coordinated care for patients and shared, "hospitality management was a reflection of whether the patient felt like they were getting good care."

Another area of importance identified by all participants was their leaders' ability to vet and partner with a preferred list of community nursing homes. Selection criteria included access, cost, quality of care, and a willingness to collaborate toward common and mutually agreed upon goals. P1, P2, and P3 accomplished building these relationships through a formal interviewing process of the companies that either owned or managed the nursing home facilities. P4, P5, P6, P7, P8, and P9 selected preferred partnerships through determining which nursing homes had historically accepted a significant portion of their patient population or through learning which nursing homes their patients preferred to use.

P6, P7, P8, and P9 placed employed nurse practitioners in the nursing homes. The nurse practitioners see all ACO patients discharged from the health system within 48 hours for an initial evaluation with a physician visiting within 30 days, with alternating visits ongoing and are expanding the program to include all patients discharged. The

nurse practitioners assumed the responsibilities of answering the nursing home staffs' telephone calls and faxes regarding the patients' care, which in turn has taken the burden off other providers to let them focus on their clinic patients. Because the model allows for clinical providers to be easily accessible for patients, the nurse practitioner also provides immediate care if a patient's condition changes versus historically the nursing home sending patients to the hospital emergency department for assessment. The clinical model has also assisted with a reduction in antibiotic use as providers can order cultures and determine if an antibiotic prescription is necessary rather than merely responding to a call from the nursing home staff for antibiotics.

One of the ACO goals is that a physician ACO member also services as the nursing home medical director. This leader role aids in relationship building, communication, and establishing best practices. The nursing home leaders provided positive feedback expressing the appreciation of the additional clinical expertise and assistance with educating staff. The participants (P6, P7, P8, and P9) opined the patients benefited by significantly reducing lengths of stay and readmissions. The participants are currently working on data analytics that could provide real-time performance data from the nursing homes. The theme of leaders with strategies for care management system changes improved successful ACO implementation was supported through the coded results of the participant interviews and the triangulation of organizational data shared. P8 and P9 achieved reducing preventable admission rates from 90% to 53% since August of 2017.

P1, P2, P3, P4, P5, P6, and P7 maintained ongoing relationships by inviting nursing home representatives to become members of already established clinical teams. P8 and P9 created a collaborative relationship based on the Interact model to address shared responsibilities towards improving clinical care and care coordination. Being an active member of these clinical teams enhanced their relationships through building communication and collaboration towards the culture of managing patients lives rather than episodic care, evidence-based practices, and efforts towards selecting, developing, and progress towards quality and cost standards.

P8 and P9 are expanding community partnerships beyond nursing homes. An example shared was alignment with additional urgent care centers to facilitate access and exchange valuable patient information. Additionally, P8 and P9 shared that they are forming a partnership with CVS pharmacy to offer assistance with preventive services such as flu shots and pneumococcal vaccinations that include a shared savings program to reward efforts towards improving patient transformation.

All participants expressed the importance of both strategies in meeting ACO targets. P6 shared that because their ACO patient population was in a geographical area with low unemployment rates, it was essential for the health system to work with local employers. The P6 participant shared that most employers are used to writing a check for their health benefits rather than focusing on preventative measures such as completed health risk appraisals and developing quality metrics, both globally and at the individual employee level. The P6 participant emphasized having an established health risk

assessment is considered the gold standard regarding clinical quality in trying to maintain positive health for the employees.

Another set of community partners emphasized by all participants included community services that assist patients outside the current hospital and clinical expertise. These services included fitness centers, transportation companies, shelters, and handyman services. P8 stated the criticality of building patient solutions to provide services across the patient continuum, indicating that all contributors need to have a vision of the outcome but to also be diversified in a manner that provides patients with the required variety of services.

My study findings add to the results of other ACO research investigators. Rundall, Wu, Lewis, Schoenherr, and Shortell (2016) offered ACO health managers successful in implementing an ACO developed care management system change strategies. Likewise, Erickson et al. (2017) found care management is a critical system change strategy to meet new value-based payment policies. Through patient focus groups, Sheff, Park, Neagle, and Oreskovic (2017) found care coordination efforts had a positive effect on patients and resulted in many improvements, including medical care coordination, enhanced patient communication and support, and patient assistance with navigating the health system and necessary paperwork. Moreover, while Lewis, et al., (2017a) agreed successful ACO health care managers may likely be dependent upon developing and growing strong relationships and affiliations among health care providers, approximately three-quarters of ACOs (N=31) lacked capabilities related to care management, quality improvement, and HIT. All participants of this study highlighted the importance of

improved medical care coordination, enhanced provider connections, and system navigation for success in attaining ACO quality and cost standards.

Applications to Professional Practice

The most significant finding relevant to the professional practice of business was the clarification of what system change strategies health care managers used to implement an ACO to meet quality and cost standards successfully. My study results support the outcomes cited by other ACO researchers. Kripalani, Theobald, Anctil, & Vasilevskis (2014) expressed health care managers are challenged in achieving and sustaining new organizational system change strategies to support patient population care transitions. Moreover, Harris et al. (2016) opined ACOs are an example of cutting-edge health care organizational redesign and successful managers could be leaders for future health care transformation. The authors further expressed that although only 28% of Medicare ACOs have been successful, the current ACO leaders are drastically changing the health care industry through innovations of new power centers and care transformation while creating physician and hospital competition within their markets.

In support of these researchers' findings, my study highlighted the difficulties and barriers current health care managers experience in implementing system change strategies that resulted in implementing a successful ACO. My study results also emphasized the journey takes time and some health care managers may be left behind as other health care managers, such as the participants of this study, are far into the development of successful ACOs. The outcomes of this study are relevant to the practice of business because it provides a mechanism for health care managers to gain an in-depth

understanding of how to implement a successful ACO and reduce time invested to develop business plans that could lead to the survival of their organization in the future evolving health care reform mandates. More importantly, the research may enable health care managers to become a role model by timely and effectively instituting patient care improvements that ultimately improve the care of all patients in the United States.

The experience of the Pioneer ACO pilot participants provided a unique and instructive opportunity to assess what system change strategies were successful in implementing an ACO to meet quality and cost standards. Although this research provides meaningful information for all health care managers, it mainly has great value to health care managers of complex health care systems. Given that Whitman (2017) found the dollars generated amongst the various ACO programs, including Pioneer, MSSP, and the Next Generation model produced $466 million in savings in 2015 reflected only a small portion of Medicare's $646.2 billion total expenditures, it is unlikely health care reform will slow down. Health care managers with the knowledge and ability to combine the system change strategies presented in this study could be better positioned for job security as well as other career opportunities as business leaders seek to maximize shared savings and improve patient care outcomes.

Implications for Social Change

The findings from this study might contribute to social change by contributing to a culture that promotes that all patients in the United States, no matter what background or status, receive timely and quality patient care. The findings may also enhance a system that improves the patient's ability to receive needed support services, such as

nutrition, housing, addiction, or emotional support. Equally critical but in contrast is that the findings of the study suggest implementation of system change strategies occur at a fast-pace with many lessons learned by the participants. Given that Liu and Wu (2016) opined imperfect system change strategies could present safety hazards for ACO patients, it is imperative that those who are instrumental in social change be engaged with the transitions.

Given the urgency of the U. S. health care financial crisis and the race to develop and implement new policies to reduce costs and improve patient access and quality of care now is a critical time for the social work profession (Stanhope, Videka, Thorning, & McKay, 2015). Stanhope et al. (2015) found social workers may be key as contributors and leaders to the success of health care reform that leads to system change strategies. Stanhope et al. further opined the "whole" population approach to health care that engages many stakeholders of individuals, families, communities, and health care systems reflects the values of social workers of creating an in-person environment and social justice.

More recently, Westling, Walsh, and Nelson (2017) found the requirements of the Pioneer ACO leaders resulted in seven moral distresses for providers and health care managers. The authors described the seven distresses as follows.

1. Conflicting reimbursement models such as fee-for-service versus pay-for-performance.
2. Creating two different levels of care, one for ACO patients and one for other patients.

3. Financial incentives versus patient choice drive services.
4. "Best" care disagreements by providing only necessary care and exhibiting a perception of rationing resources.
5. Required ACO metrics rather than a reflection of current evidence-based practices.
6. Preventive team-based care tends to lead to clinician burnout because of the intensity.
7. Limited ethical support resulting in non-alignment of organizational values and clinical and business approaches.

According to Westling et al. (2017), because of the fast-paced nature of ACO implementation, few ACO health care managers created intentional, proactive systematic approaches to address ethics at the organizational level. Other pertinent research in the area of how medicine may affect social determinants was the Centers for Medicare and Medicaid Innovation's (CMMI) Accountable Health Communities (AHC) demonstration (Gottlieb et al., 2017). The AHC launched in 2016 and is designed to provide research on how integrated social and medical care delivery impacts individual and population health (Gottlieb et al., 2017). Interested parties may use the results from my study and from that of the AHC research to share findings with health care managers, social workers, clinicians, and other stakeholders of the organization to create, implement and maintain successful system change strategies to reduce social implications and to improve the quality of life for each patient they serve.

Recommendations for Action

The results of this study provided insights into the mindset of health care managers who used system change strategies to implement ACOs. Given long-term systematic changes are required to meet the current evolving timelines and strengthening incentive-based programs for ACO performance (D'Aunno, et al., 2018), it is imperative for health care managers to gain wisdom and be an influential advocate for improved patient care and cost reduction. To expedite the implementation of system change strategies, health care managers could conduct organizational assessments based on the experience of the study participants and employ the lessons learned to address gaps in current systemic processes to identify and prioritize performance improvement efforts.

According to Hilligoss et al. (2017b), successful health care managers understand the complexity of the required system change strategies and the necessity for independent systems to integrate as a whole system at all levels of the organization. Thus, I recommend health care managers begin the evaluation and analysis of their internal and external systems to identify gaps. Once the gaps are identified and prioritized, I suggest health care managers develop aggressive action plans to address gaps in performance or to develop new needed systems where systems are non-existent.

Based on the findings of this study, health care managers should consider HIT and care management systems a priority in the gap assessment. Walker, Hefner, Sova, Hilligoss and Song (2017) found EHR challenges are further complicated with internal environmental and care coordination amongst ACO and non-ACO members, indicating that the HIT and care coordination systems are intertwined and complex. As part of this

assessment, the health care managers should gain an understanding of the ACO's patient population through available internal and external data.

Further, health care managers seeking to implement an ACO should conduct an internal assessment to determine what gaps in patient services exist, within their organization and in the geographical region. Building on these results, health care managers should inspect whether strong and collaborative relationships exist, or whether new partnerships need to be invoked and embark on that journey. Seeking patient perspective and levels of engagement before implementing an ACO may also benefit ACO health care managers. Lastly, I recommend health care managers develop a structured methodology to assess the current organizational culture and the ability of leaders and the workforce's ability to create and sustain numerous and major change that may present operational and ethical challenges.

The results of this study included insightful information that health care managers might find useful. Therefore, the health care managers who participated in this study could receive a two-page summary of the results if requested. Further dissemination of the study could include speaking engagements, consulting with other health care managers, and training health care managers or other staff members. I also seek to publish my findings locally and nationally.

Recommendations for Further Research

The intent of this study was to explore what system change strategies health care managers used when implementing successful ACOs. By the findings of this study, future research should explore the effect of the system change strategies on ACO efforts.

The themes emerging from this study indicated that further research is necessary to understand system change strategies when implementing an ACO to meet quality and cost standards. The following recommendations are for future researchers.

Continued research on system change strategies as they develop could provide added benefits to health care managers implementing an ACO. The further exploration of varying geographical location could also provide additional insight to regional and patient population attributes that could affect the success of the ACO and eliminate study limitations. Exploring the success of MSSP and the Next Generation ACOs may require additional research in the future. These system change strategies explored in this study does not cover all results of newly implemented ACO strategies; for example, whether or not telemedicine improves patient satisfaction and outcomes, enhances care access, or reduces health care cost. Further studies could explore these components alongside the ACO standards of quality and cost we examined. Additional steps in this research could include mixed methods, or qualitative studies of the development, improvement, and sustainment of telemedicine through ACO incentives.

Researchers could also consider studying other system change advanced technology strategies currently being implemented for predictive analytics to aid in the prevention of declining health progression of ACO patients. Few researchers have studied how HIT directly enables the different levels of care management systems (Wu, Shortell, Rundall, & Bloom, 2017). More specifically, health care managers could benefit from research results that reflect the success and failures of available software vendors claiming accuracy in these predictions, and how health care managers organize

to make such vital selections and decisions. Further, researchers could provide evidence to influence standardization of quality measures across the varying pay-for-performance, incentive-based programs, within government, commercial, and private payers.

Federal legislators believe that utilizing value-based incentive programs and improving patient health outcomes could decrease the cost of health care, both short-term and long-term. State legislators (California, Colorado, Oregon, Vermont, and Washington, and Washington, D.C.) have begun to legalize physician-assisted suicide (Devereaux & Zilz, 2018), as health care costs for patients 65 years or older accounts for approximately 25% of the total Medicare spending (Cubanski, Neuman, Griffin, & Damico, 2016). Therefore, quantitative or mixed methods research may provide additional insight into health care cost savings over an extended time and a patient's lifespan. I recommend the researchers include the patient's perspective on whether or not their quality of life improved as a result. Building on the research of physician engagement and satisfaction with the implementation of an ACO, the health care industry may also benefit from studying the downstream effects on frontline staff, including clinical and non-clinical personnel.

Health care managers' system change strategies when implementing an ACO include creating and maintain relationships with community partners to improve the quality of life for ACO patients. Further research could consist of how these strategies benefited or adversely affected the community population and businesses. Research around these partnerships could provide valuable information for sustainment if focused on the partner's cost savings, obstacles, challenges, benefits, and engagement.

Lastly, there is still a research gap regarding the ethical outcomes of harm to patients and the clinical workforce from ACO implementation. Although ACO initiatives are well-intended by the health care managers over ACOs, current research suggests there are many by-products of ACOs that directly affect the moral integrity of the health care industry (Westling et al., 2017). Future research may benefit all stakeholders in providing guidance on how to create a work environment that includes a systematic approach to address ethical and moral dilemmas proactively.

There were several limitations to my study. Future studies may need to incorporate the two limitations of this study; bias and participants' truthfulness. Even after following all procedures to manage bias and not conceding to my personal thoughts or practices during the interviews, data analysis, and conclusions, bias may appear present because of my personal experience as a health care executive, as well as bias of the participants. Second, other than adhering to the interview protocol, the participant's truthfulness is an uncontrolled variable when conducting semistructured interviews.

Third, although participants may have responded to the interview questions without consulting other staff, the answers reflected the participants' lived experiences. Finally, the participants' responses and results might be attributable to the geographical area, patient population, and how much managed care exists. There is not a plausible classification tool with the capacity to measure the complexity amongst the integrated health systems in the United States (Henke et al., 2018). All study participants voiced experience in managed care. I did not differentiate between participants specifically

based on patient population attributes, although some lessons learned from the participants were shared.

Reflections

My reflection on the Doctorate Business Administration doctoral study journey allowed me the opportunity to review my role as a researcher and as a scholarly student. To adhere to research ethics, the researcher must make every attempt to avoid bias through not making conclusions based on the researcher's conceived ideas, be a responsible scholar by not plagiarizing or falsifying information, and be responsible for their work, while maintaining integrity through honesty and confidentiality (Yin, 2014). To avoid bias as the researcher, I kept an open mind to what the research and data analysis may reveal. I was cautious about not sharing my perceptions, opinions, or bias during the participant interviews and closely followed the interview protocol. Because I worked in the health care industry, participants appeared to feel comfortable about sharing honest responses to the interview questions.

As a researcher, I had preconceived opinions about how difficult it would be for me to solicit study participants. I found the participants willing, engaged, and welcoming in assisting me with my study. Further, because I was focused on the central research question of what system change strategies health care managers used to successfully implement an ACO, I presumed the participants' drivers were based on financial motives. Through the interviewing process and data analysis, I was pleasantly surprised that although finance was a factor, the key motivator for the participants was to improve the lives of the patients they served. From my extensive professional experience in process

improvement, I expected the system change strategies were initiatives lead by performance improvement personnel and, although may be complex, were relatively easy to accomplish through basic continuous improvement methodologies. Throughout the study I gradually became aware of the complexity of the system change strategies, the volume of different clinical and administrative roles involved, and the extended time required to determine the goodness of the efforts. As a novice scholar, I believed that writing a doctoral dissertation would not be more challenging than writing other college papers. Through my learning, I soon recognized that scholarly writing is rigorous, challenging, and requires a high level of integrity from the student.

A new level of respect for the participants and the challenges of the complexities they face emerged from the multiple interviews. Participants experienced reflection on their journey resulting from the audio-recorded interviews with the participants. All (100%) of the participants expressed few, if any, regrets from their experience in implementing a successful ACO. One participant concluded by sharing, "I just wish I could have done it for more patients". Health care managers who wish to be successful in implementing an ACO must possess a foundational goodness towards people, be skilled and innovative in business decisions with a fondness of constant change, and have a determination tainted with a positive attitude of improving the lives of the patients they serve as the journey, not a destination.

Conclusion

The U. S. Department of Health and Human Services (HHS) set a goal for Medicare reimbursement that is attached to value-based programs by 85% in 2016 and

90% in 2018, reflecting setting direction not only for the near future but the overall future of healthcare reimbursement (Glanzman, 2017). Health care managers implementing an ACO have experienced heightened uncertainty and pressures and struggled with determining what is worth measuring and the analysis of outcome data related to quality and cost standards (Mason, 2017). Participating in the quality programs has been voluntary but set examples for future mandates to assist HHS in meeting its goal of reducing cost and improving the quality of health care (Glanzman, 2017).

It remains unclear what government actions will result from the new health care reform structure, but it is certain providers and managers of health care delivery systems must continue to provide patient care and continuously make efforts to improve the quality and cost of their services. Implementing an ACO is a complex and continuous journey that requires many operational areas to be created and redesigned at multiple organizational levels (Hilligoss et al., 2017b). Harris, Elizondo, and Brown (2016) opined ACOs are an example of cutting-edge health care organizational system redesign, while Hilligoss, Song, and McAlearney (2017b) opined successful ACO implementation mandates substantial system change across all organizational levels to reduce costs and improve quality. Heisey-Grove and Patel (2016) further found HIT systems could improve care coordination, patient population management, and patient engagement. Therefore, it is critical for health care managers to grasp what may be necessary to implement and sustain requirements to succeed in the new health care reform surroundings.

ACOs represent a powerful opportunity to align system change strategies around delivery cost-effective high-quality patient care by holding providers accountable for the continuum of patient care. Health care managers who can set the cultural stage for successfully implementing proactive system changes in the areas of sophisticated population data analysis and communication sharing through HIT, alignment of community services, and provider and patient engagement could be able to succeed and maintain value-based payment reform and delivery higher-value care to their patients.

Thirteen of the 32 Pioneer ACO organizations dropped out of the Pioneer ACO demonstration program and only 97 of the MSSP ACOs qualified for shared savings payment in 2014 (Taufen, 2016) due to the health care manager's inability to achieve shared savings (Vogus & Singer, 2016) by not achieving spending benchmarks, soliciting enough patients, or expanding market share (Goldsmith & Kaufman, 2015). Having the ability to think systemically is imperative as providers find it more difficult to maintain consistency across the entire health care delivery system as ACOs grow in services and complexity (Vogus & Singer, 2016). Given this history, it is critical that health care managers understand the system change strategies required to succeed in implementing an ACO to meet the quality and cost standards could require a transformation over an extended timeframe from the current health care system methodologies of providing patient care. The new health care reform delivery system may need these changes to be systematic, advancing, and sustainable.

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Appendix A: Interview Questions

The following research question will guide the research: What system change strategies did health care managers use to meet the ACO quality and cost standards?

Interview Questions

1. What system change strategies did you use to meet ACO quality standards?
2. How have you assessed the effectiveness of the system change strategies used to meet the ACO quality standards?
3. What challenges did you experience in meeting ACO quality standards, and how did you address those challenges?
4. What else would you like to share about meeting ACO quality standards?
5. What system change strategies did you adopt that met ACO cost standards?
6. How have you assessed the effectiveness of the system change strategies used to meet the ACO cost standards?
7. What challenges did you experience in meeting ACO cost standards, and how did you address those challenges?
8. What else would you like to share about meeting ACO cost standards?

Appendix B: Interview Protocol

Interview: System change strategies health care managers use to meet the ACO quality and cost standards in successful Accountable Care Organizations (ACOs) in the United States.

A. I will begin the face-to-face interviews with introductions and an overview of the study topic.

B. I will tell the participants I am sensitive of their time and express my gratitude for participating in the study.

C. I will advise the participants I am recording the interview and that our conversation is strictly confidential.

D. I will turn on the digital records, identify the participant's identifying code, and announce the date and time of the interview.

E. The interview will last approximately 30 minutes to obtain responses for nine interview questions and follow-up questions.

F. I will explain the intent and plan for member checking, including the request for verification of accuracy of the interview data as soon as possible.

G. I will ask the participant if there are documents or materials that they would be willing to share that might enhance their answers.

H. After ensuring the answers are to the participant's satisfaction, I will conclude the interview with a sincere thank you for participating in the study.