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Walden University

College of Social and Behavioral Sciences

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Daaiyah Akram

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the review committee have been made.

Review Committee
Dr. Ernesto Escobedo, Committee Chairperson,
Public Policy and Administration Faculty

Dr. Marcia Kessack, Committee Member,
Public Policy and Administration Faculty

Dr. Timothy Bagwell, University Reviewer,
Public Policy and Administration Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2019

Abstract

Merging Pay-for-Performance and Technology to Impact Patient Outcomes

By

Daaiyah Akram

MBA, American InterContinental University, 2007

BA, American InterContinential University 2006

Dissertation Submitted in Partial

Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

Public Policy and Administration

Walden University

January 2019

Abstract

Pay-for-performance (P4P) programs improve the effectiveness, quality, and overall value of healthcare. In today's world of advanced technology and changing trends, physician organizations hesitate to adopt P4P program methodology. A gap in the literature was identified, as there were no guides found that explained how to implement P4P initiatives that improved quality of care. The purpose of this study was to gain a better understanding of P4P, and the phenomenology of practice theory was applied to obtain different perspectives about P4P programs and how incorporating technology improved quality of health provisions. Basic qualitative methodology was used, and semistructured telephone interviews served as the instruments to collect valuable data. E-mail invitations were sent to participants identified by the P4P Team Director, with interview questions to use as talking points during the telephone interview sessions. Post interview summaries were sent to the participants to review, approve or edit prior to inclusion into the study. Patterns were identified and showcased in a qualitative data coding analysis spreadsheet and a semistructured interview coding graph revealed that technology stood out amongst all key words. The results of the study confirmed that merging technology with P4P programs produced positive patient outcomes. The use of the phenomenology of practice theory was justified as different responses were provided by the participants. From a social change perspective, when technology and preventive healthcare initiatives are merged, P4P programs improve the quality of care. Inpatient bed days are reduced, and public reporting of physician organizations and health plans performances encouraged the onboarding of new physician organizations using the study site's measure sets to improve their quality of care efforts, thus resulting in better patient outcomes.

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Dedication

It is with great humility that this body of work is dedicated to my children, Ameer and Khalil Akram, as well as my parents Kasib and Zaheerah Akram, and late Uncle Saleem Shahid. This student's aim was to develop a research project worthy of providing education to medical facilities within the United States and deliver step-by-step instructions on how to implement successful pay-for-performance programs into existing initiatives that result in performance improvement. It has always been my goal to earn a doctorate degree and use it as a stepping stone to not only reach out and continue to motivate and mentor but inspire others to want to do the same. It serves as an example for my children as proof that anything is possible if you set goals, as accomplishing any goal starts and finishes with planning your work and working your plan.

Acknowledgment

The outcome of this study would not have been made possible without the support of the dissertation committee. Dr. Escobedo provided continued motivation and encouragement, as well as Dr. Marti Kessack. I refer to my dissertation committee as the ultimate dream team. Each member of the committee provided me with the perfect amount of professional guidance needed to complete both my research and writing journey throughout the entire dissertation process.

My gratitude also extends over to those with whom I had the pleasure of working with during this study. My family and friends have been the most instrumental in inspiring me to continue pushing forward with completing this goal. I especially want to thank my parents, Kasib and Zaheerah Akram, whose love and guidance is always there for me in whatever journey I wish to pursue in life. They are the role models I work so hard to resemble for my children Ameer and Khalil Akram. I pray that I have made everyone involved in this journey with me very proud.

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Chapter 1: An Introduction to the Study

Problem Statement

Pay-for-performance (P4P) is an umbrella term used to refer to various initiatives aimed at improving the healthcare industry's effectiveness, quality, and overall value of healthcare. Such arrangements provide financial incentives to the physicians, hospitals, and other healthcare providers to carry out improvements in the industry and attain optimum outcomes for patients. Although P4P appears to be an effective method of solving healthcare quality problems, studies still need to be conducted to determine the effectiveness of P4P programs. A gap exists in the current research, as there was insufficient qualitative literature explaining how to successfully merge multiple health care initiatives together to obtain the best patient outcomes that will lead to improved quality of care. Through qualitative studies, it is possible to uncover other areas that must be considered to improve the effectiveness of P4P. In this study, I revealed some of the gaps in literature and offered suggestions on how to optimize P4P programs.

Phenomena of Interest

The phenomenon of interest for study was merging advanced technology with P4P programs to impact patient outcomes positively. P4P plays a role in the healthcare industry, and it enhances the reduction of payments made through fee schedules, bonuses, and incentives. It also increases the quality of care and service rendered to patients. According to the study site, adopting standard performance measures and benchmarks help harness collective market forces to drive improvements in patient care. Merging technology with preventive P4P programs improves the quality of care provided to

patients. It reduces the amount of inpatient bed days by encouraging and increasing the use of outpatient ambulatory care facilities. Better patient outcomes are observed when P4P efforts and initiatives are applied.

Purpose of the Study

The intent of the study was to gain a better understanding of how merging P4P with electronic health record reporting has improved patient outcomes in the United States. To identify how patient results have been affected, it is vital first to learn the roles played by P4P in the healthcare system by comparing different perspectives obtained from qualitative literature. Secondly, it is essential to find out how the integration of technology with P4P has led to an increase in the quality of care and services rendered to patients. This research encompassed the identification of additional programs that can be integrated into or customized to fit existing P4P programs, and the study included strategies other medical institutions used to improve the quality of care, as well as promote positive patient's outcomes.

Potential Significance

The results of this study may provide a better understanding of P4P programs. Additionally, the study also filled a literature review gap by focusing on the merger between technology and preventive P4P initiatives that take healthcare directly to the people. These efforts, in the long run, offer more affordable health care to patients by providing ways to reduce or in some cases avoid inpatient costs.

Background Information

Merging technology with P4P programs can improve patient outcomes. However, scholars have not provided instructions on how P4P can be successfully implemented, thus creating a gap in qualitative literature. Alshamsan, Majeed, Ashworth, Car, & Millett (2010) explained how P4P programs are structured to ensure the reduction in inequalities and to improve the overall healthcare quality. Cromwell, Trisolini, Pope, Mitchell, and Greenwald (2011) stated that P4P methods and approaches offers a balanced approach and assessment of P4P. Donev (2005) examined the concerns about the nature of the standard used to earn and distribute the incentive payments to P4P programs. Hahn (2006) explained about P4P and how the government is involved in rolling it out to both public and private health care. Miller & Sim (2004) surveyed the physicians who use the electronic medical record technology and how it enables doctors to pursue more robust quality improvement programs like P4P. Finally, Endsley, Kirkegaard, Baker, & Murcko (2004) explored the basics of P4P programs and how they motivate healthcare professionals to offer the best care to the patients.

Theoretical Framework

The theoretical framework for this study was the phenomenology of practice theory, which is aimed at understanding the positive impacts of merging P4P with technology and its advancements to improve the quality of health provisions. Applying the phenomenology of practice theory to this study provided insight into how P4P and technology work cohesively to improve patient outcomes and how combining both components enhances the strategic initiatives designed to lead performance improvement

hospital-wide. The research was motivated by the need to establish an association between the current factors surrounding health provision and the likelihood of improvement based on the application of P4P initiatives to mobile health provision facilities. The relationship between the P4P initiatives and mobile health technologies was critical in this study, especially in reducing the possibility of medical practitioners resorting to underperformance because of nonconsolidated service rewards.

Research has been the core in helping improve the living standards of human beings. Van Manen (2016) identified the phenomenology of practice as an effective method of research, as it helps in establishing a relationship between people and the environment. From the information revealed in phenomenology of practice, better ways of approaching the challenges present in the human life, as well as improving the human lifestyle, can then be determined. The method applies when conducting qualitative interviews with participants in research to identify the perspectives of healthcare P4P. These programs were developed to encourage improved performance in the healthcare industry. Incentives in the form of finance are offered to medical providers, professionals, and other healthcare providers for achieving a certain quality in their services (Damberg, Sorbero, Lovejoy, Martsolf, Raaen, & Mandel, 2014). Individuals were expected to reveal quality information that can be used to identify the strengths and the weaknesses of an established healthcare system. Therefore, improvements can be made to enhance the quality of the healthcare system.

The phenomenology of practice theory has been essential in developing the research on the P4P program. It has been applied in the selection of the best approach that would provide adequate results for the study. The theory has also influenced the choice of

participants through the selection of individuals who give the best results. The participants can provide results from a personal point of view. Therefore, the accuracy of the results is maintained. The integration of the contents of the phenomenology of practice was a useful approach in conducting qualitative interviews on the P4P program.

Assumptions, Limitations, and Delimitations

One of the main assumptions used by P4P is that individual output will increase because of the motivation they get from the payment given. However, there may be an ideal situation in which it is possible that all incentives will work to the attainment of the quality aimed at achieving in the healthcare system. One of the limitations of this study was that, in some cases, the type of incentives an individual is given might not motivate him or her accordingly. A delimitation was that the type of pay must be according to the quality of health provided. P4P should be proportional to the quality of healthcare services provided.

Research Questions

RQ1: What significant P4P initiatives drive quality of health provisions?

RQ2: What additional programs can be integrated into existing P4P programs?

RQ3: How can merging technology with P4P produce positive patient outcomes?

Nature of Study

The nature of this study consisted of basic qualitative methodology. I used a semistructured qualitative interview approach to communicate with various stakeholders in the health industry and to obtain their feedback on the effectiveness of P4P initiatives. I applied this framework based on the practice knowledge of practitioners and

administrators, thus enabling them to provide viewpoints of P4P programs. Features common to P4P include an insurer or health system rewarding bonuses to practices that reach a certain level of quality. The data collection phase consisted of qualitative interviews with key members of the study site. It is study site that is responsible for developing a successful P4P program based in California. E-mail invitations were sent to the participants using my Walden University E-mail account before the scheduled telephone interview.

Possible Types and Sources of Information or Data

In this study, I used primary data, and followed proper data channels. The data collected during this study was handled with the confidentiality. The primary data included sources from implementation results from different countries like the United Kingdom and the United States. One primary data was the United Kingdom's Quality and Outcomes framework, which was introduced in 2004 and has been researched by other schools like Ryan et al. This is the world's largest primary care program for implementation of the P4P initiative.

Implications for Positive Social Change in Health Care P4P

P4P is a framework that seeks to provide a financial enticement to healthcare providers by the quality of services they render. When merging technology with preventive healthcare initiatives, P4P programs improve the quality of care provided to patients. Inpatient bed days are reduced by encouraging and increasing the use of outpatient ambulatory care facilities. Better patient outcomes are observed when both P4P and Healthcare Effectiveness Data and Information Set (HEDIS) data collection

efforts and initiatives are applied. The P4P will improve a medical facility's quality of care scores during the HEDIS data collection and reporting process. The primary goal of this payment architecture is to map the efficiency and effectiveness of healthcare services to the cost of receiving the services. The Affordable Care Act motivates the need for improved transparency in the administration of healthcare and promotes human consciousness in understanding the need for market behavioral shifts (Foster, 2015).

Social change includes innovation to increase the capacity of the P4P model and to promote the widespread implementation of the system. The involvement of all participants ensures that adequate information is collected to help in the modeling of the P4P system and to evaluate the system both before and during the implementation phase. Social change also enables the analysis of all regional inconsistencies to ensure that no one is left out. It ensures that potential risks and measures are put in place to reward providers that improve the existing healthcare services (Wharam et al., 2017).

Possible Analytical Strategies

In this study, I examined study groups made up of hospitals of different types. The groups had implemented initiative mechanisms in the same way and scale. The programs had to be in existence between 1 to 5 years to determine the level of implementation of initiatives and the impact it has on health service provision. Monitoring projects that have been implemented on initiative frameworks is an important strategy too. However, different institutions have different ways of how they perceive and implement new performance initiatives. To study the duration existence of institutions, the longer the existence the greater the success rate in implementing performance initiatives.

Chapter 1 Summary

The purpose of this study was to gain a better understanding of P4P programs and to reveal the motivation behind the theoretical framework, which is aimed at motivating the need to establish a relationship between P4P initiatives, thus reducing underperformance of medical practitioners and increasing the quality of care they provide to patients. Once this goal has been accomplished, it will shed light on how this study aligns with Walden's mission of social change, how it provides financial enticements to healthcare providers, and how it reduces inpatient bed days while simultaneously increasing the use of outpatient ambulatory care facilities.

Chapter 2: A Review of the Literature

Introduction

P4P programs can and often do result in improved output because payment for production is an incentive. However, there are a few circumstances where P4P programs are not successful, as it is not a guarantee it will result in such. Financial incentives are critical motivation factors that should be considered in any business. Not only do they boost staff morale, but they encourage employees to continue meeting the goals of the organization, as the success of any company begins with the success of its employees. When the employees are recognized and rewarded based on their performance, they will feel part of the organization (Endsley et al., 2004).

Medical facilities around the world are characterized by the suboptimal delivery of healthcare services to their patients. However, the global healthcare sector has been experiencing a rise in operating costs, thus raising the question of some of the measures that the health facility managers and governments can put in place. The goal of implementing such measures was to ensure the cost of healthcare is low, while simultaneously maintaining high-quality services. With some measures being deployed by most governments and healthcare facilities, including guaranteeing adequate progress in improving the quality of patient care, medical facilities can avoid complications and mortality among the patients (Duszak & Silva, 2014).

Regardless of the identified measures being in place, the quality of healthcare services is increasingly decreasing. Due to unwanted variations in use and quality of care, the cost of healthcare is increasing, both among the healthcare providers and specific geographic areas.

Literature Review

Rewarding practitioners in healthcare has become the norm in most medical facilities. The use of pay incentives to promote improved efficiency and quality can be used in the assessment of efficiency and effectiveness of the provision of information based on a set of institutional agreements (Pepper & Gore, 2015). When implementing P4P models in healthcare facilities, the agency theory will be essential in addressing some of the conflicts that may arise from the agent and the principle, which is a factor in the success of the model. Essential models are characterized by information asymmetry, outcome uncertainties, and conflict of interests. Therefore, using the following agency theory table, organizations, and governments will be able to identify some of the areas where they need to integrate the technology early to ensure minimal conflicts once the model is in use (Bosse & Phillips, 2016). The following table addressing how intrinsic and extrinsic motivation is used to persuade people via incentives.

TABLE 1

Assumptions about the Nature of Man under Positive Agency Theory and Behavioral Agency Theory

Assumption	Economic man	Behavioral economic man
Principal's risk preference	Principals are risk neutral	As for agency theory
Agent's utility function	Agents are rent seeking, agent's utility is positively contingent on pecuniary incentives and negatively contingent on effort	As for agency theory, but subject to constraints relating to rationality, motivation, loss, risk, uncertainty and time preferences
Agent's rationality	Agents are rational	Agents are boundedly rational, i.e., subject to neuro-physiological rate and storage limits on the powers of agents to receive, store, retrieve, and process information without error
Agent's motivation	There is no non-pecuniary agent motivation	Motivation is both intrinsic and extrinsic. Intrinsic and extrinsic motivation are neither independent nor additive.
Agent's risk preference	Agents are risk averse	Agents are loss averse below a gain/loss inflection point; otherwise risk averse
Agent's time preferences	Agents' time preferences are calculated according to an exponential discount factor	Agents' time preferences are calculated according to a hyperbolic discount factor
Agent's preference for perceived equitable pay	Not defined	Agents are inequity averse

For principals to benefit from the P4P model, they will need to incur a substantial cost as a way of knowing the progress made by the agent and to determine whether the agent has made appropriate decisions and the actions to address patient issues (Cromwell, 2011). Only the best performing physicians will be rewarded, hence motivating them to work harder to improve patients' outcomes through high-quality services and efficiency in healthcare provision.

According to Milstein & Schreyoegg (2016), one of the challenges facing the policy makers among the member's countries under Organization for Economic Co-Operation and Development (OECD) is creating policies that will ensure there is an improvement in the quality of healthcare in the healthcare systems. However, the two measures that most of these members' countries have adopted, or are in the process of adopting, is the P4P with most merging the initiatives with technology. By design, health care services are difficult to manage. The patients demand in this industry range from interventions that will save lives to unnecessary services. Each patient is an individual, making it difficult to come up with a system to address the needs and demands of each patient (Green, 2013).

In the last few decades, healthcare providers have been offering healthcare services as a way of supporting the demand because the healthcare system is traditionally structured using a list of services that have set fees. Every service offered in the healthcare facility ends up contributing certain percentages on the physician, hence making it necessary for the physicians to comply with all the needs of the patients if they are life-saving or completely unnecessary.

Guterman (2011) identified P4P as a term used to describe incentives that are aimed at improving the efficiency, quality, and entire value of the healthcare. Jha (2012) indicated that the primary purpose of P4P is to ensure health care providers are paid so that they can improve the quality of services delivered to the patients. Due to complexity of healthcare system, different P4P programs have been launched in the last few years for health maintenance organizations, nursing homes, hospitals, physicians, and home health care providers. The United States made a significant contribution to the implementation of P4P in the healthcare industry (Maeda, 2013). In 2012, Congress mandated the development of effective plans to ensure the implementation of P4P programs in U.S. hospitals, and the programs are currently implemented in all healthcare facilities. Regardless of the efforts by the U.S. government and other members of OECD, the implementation of the system has been facing challenges, indicating that the systems are lacking the capability to facilitate healthcare providers' engagement; hence, there has been not much improvement on healthcare services and patients' outcomes. Some of the issues that have contributed to ineffectiveness include lack of clear understanding by healthcare providers whether the incentives are supposed to reward the performance levels, the improvements, or both (Langdown, 2014).

When using the P4P model in healthcare, hospitals and physicians are compensated based on how well they perform their services. Some of the metrics used to determine this include the quality of services, efficiency, and outcomes. It is difficult to measure the three metrics without integrating the technology on P4P model, so that it can indicate how much the patients treated in each healthcare facility or by an assigned physician recovered from their illness (Harrison & Roland, 2014). For example,

physicians and hospitals recording a high number of mortalities due to other hospital-related complications may be fined, while the hospitals where patients records indicate a low number of returns will be awarded, creating an environment where healthcare providers work hard to offer high-quality services (Chien, Colman, & Ross, 2009). Linking the healthcare providers' performance to efficiency and quality of care directly means that they will be able to address the issues facing healthcare including the effect of high cost of operation due to inefficiency. P4P is a major component in the spectrum of value-based reimbursement (McKee & World Health Organization, 2004).

Different metrics will be tested using computer programs to determine the health care provider performance and the payment they deserve. For example, P4P will need to determine the process metric. Reimbursement is determined through understanding whether the patients are undergoing the appropriate tests, and this is compared to the evidence-based best practices for prevention and treatment of health care issues, making it possible to range the quality of services offered and efficiency (Lindenauer et al., 2007). Secondly, use or cost metrics will determine using technology where programs are developed to determine whether resources are being used appropriately by a given physician or the entire healthcare facility; this may be checked through an analysis of patient's information to understand the readmission rates, generic prescribing rates, and formulary compliance (Rosenthal, Landon, Normand, Frank, & Epstein, 2006). Due to the different metrics that need to be determined for effectiveness in P4P, no single P4P program can be able to address all the metrics. More than 150 P4P programs are being implemented currently in different healthcare facilities in the United States and other OECD members' countries.

According to Rubinstein, Rubinstein, Botargues, Barani, & Kopitowski (2009), different factors determine patients' outcomes in healthcare. Some of the elements include how motivated the healthcare providers are, the quality of healthcare services being offered by a given physician or hospital, efficiency, and job satisfaction. However, it is essential to have appropriate models in place and ensure they are working. To ensure the models are effective, it is essential to merge the models to technology to improve patients' outcomes.

Foster (2015) argued that implementation of P4P poses a potential risk in the inability to develop proven safety measures and deterministic benefits to the participants. The P4P system shows insignificant improvement on the quality of healthcare administration due to the ethical dilemma of administering the best medical care without proof of safety to the clients. There is no standard definition of healthcare quality, which compromises the ability to understand and develop elements that comprise quality care. This is a result of equating the performance of healthcare services with predefined goals and standards and the dismissal of the contributions of the stakeholders and clients on ensuring quality. There is a lack of comprehensiveness of the metrics of quality and a failure to assess concepts of compassion and practical communication skills (Foster, 2015). Foster (2015) believed that poorly designed reward systems cause negative effects on healthcare providers. Physicians tend to select the best patients to enhance their performance, which translates to greater rewards. On the other hand, physicians provide quality services regardless of the risk category of the patient, but receive reduced income, thus leading to the demoralization of the healthcare provider. There is a corresponding

decrease in the number of doctors, which affects society by accelerating the problems of access to medical care and the quality of available healthcare.

Impact of Merging Technology with P4P

Human resource is the most critical asset for every healthcare facility. Therefore, having highly motivated physicians and other healthcare providers is one of the most effective ways of creating a competitive advantage at a given healthcare facility. Physician motivation can be achieved in different ways, but one of the most effective ways, according to Kolozsvári, Orozco-Beltran, & Rurik (2014), is by ensuring compensation. By using P4P, the healthcare sector will be able to modify the current payment system and promote a high level of motivation among the physicians. For payment systems to be effective, it is necessary to merge them with technology to make it easy for hospital managers and other principals to measure the essential metrics or metrics. This strategy will ensure the health care providers are well compensated and are highly motivated to perform their duties, which has a direct impact on the patients' outcome (Herzer & Pronovost, 2015). Physicians tend to offer services to a vast number of patients every day. Therefore, through effective integration of technology on the P4P models, all of their efforts will be recognized and rewarded.

Glickman & Peterson (2009) stated that health care providers change their behavior to adhere to the standards of the program. According to Glickman and Peterson, P4P models lead to increased physician motivation, thus resulting in improved process measures prescribing costs, referrals, and admissions among others. Merging technology and P4P means that the physicians and hospitals will be able to understand their performance and identify some of the areas they can improve to achieve the desired

results (Glickman & Peterson, 2009). For example, for the healthcare facilities experiencing high mortality rates, the use of technology can help identify some of the areas where the physicians are failing. The specific physicians who are contributing to the high mortality rates can be determined through data analysis using computer programs.

How Merging Technology and P4P Improves Quality of Care

According to Sutton (2012), P4P programs have the potential to improve the quality of healthcare services. Creating a need to find another element may contribute to the improvement of quality through P4P. On the other hand, according to Stockwell (2010), merging technology with P4P plays a role in the improvement of health care quality because it will be easy to keep track of all of the achievements made in the healthcare and provide evidence to implement the changes.

Using P4P and technology in healthcare will help in controlling the improvement of health care; hence, there will be statistical improvement in the management of resources, especially for patients with diabetes and asthma (Song, 2010). One of the factors contributing to low healthcare services is the issue of measuring the different functions in healthcare facilities. For example, private and public organizations are offering billions of dollars to healthcare facilities to improve the quality of services, but it has proven difficult to measure the level of improvement in quality due to lack of effective technologies (Kolozsvári et al., 2014). Developing P4P models, alongside their technologies, will help measure the quality of healthcare and understand some of the areas where needs more improvement.

Wright (2012) offered evidence on how P4P initiatives directly impact patients' outcomes. However, Wright indicated that there are fundamental quality indicators that

need to be tracked, as this can be achieved through different quality assessment technologies. Once the quality indicators have been monitored, Wright proposed that it is essential to tie each with a payment, hence contributing to improvement in patients' output. Currently, healthcare facilities are losing vast amounts of resources in efforts of improving quality of healthcare because the models are not tied to the technology to identify areas where the intended changes have been achieved and areas where further adjustments may be necessary.

How Technology and P4P Improve Health Care Efficiency

Efficiency is a function of process, inputs, and outputs measured by a composite index, whether the cost component is taken as one of the inputs or not. In hospitals, efficiency can either be measured using the resources, or by the patients' outcomes and satisfaction. According to Winterbottom (2012), whenever patients are satisfied with services offered in each health facility, this achievement is termed as efficiency. For hospitals to achieve efficiency, they need to provide hotel-like services to patients, which can be achieved by having motivated physicians. Merging technology with P4P helps hospitals and physicians create efficiency by coming up with ways of compensating physicians for their efficiency, thus creating a culture of operating healthcare facilities efficiently, which is a contributor inpatient outcome.

Healthcare managers have tried to implement strategies to improve the efficiency of the healthcare facilities. However, they have faced challenges, regardless of the efforts to reduce expenditures in hospitals by cutting different input. Ultimately, they failed due to lack of effectiveness in the assessment of the efficiency. Therefore, the process of achieving efficiency through compensation will be efficient due to the integration of the

P4P model with technology. This will be accomplished where the technology will help in the development of the models, testing, assessments, and analysis of information obtained from different functions of the healthcare facility.

When the appropriate preventive healthcare screenings are administered to patients, it creates room for the P4P programs to be successful in helping patients live longer and healthier lives. According to McKethan, Shepard, Niall, Marisa, & Nadia (2009), it is strategic programs like P4P that create interventions in patient care that leads to quality improvement and cost containment in the healthcare industry. The methods in question involved merging P4P programs with current initiatives, specifically core measures like preventive healthcare screenings. P4P programs are about managed care and improving the coordination of care. Although P4P programs are designed to help all patients, those patients with chronic diseases, of low income, minority populations, and even patients undergoing care transitions all receive benefits from these programs. Technology is a critical component of healthcare infrastructure that increases adherence guidelines, or perhaps protocols-based care.

Alshamsan et al. (2010) assessed the impact of P4P programs on the inequalities in the healthcare quality about ethnicity, sex, and socioeconomic status. Alshamsan et al. concluded that the disparities in the management of chronic illness management have substantially persisted after the introduction of the quality outcome framework. Alshamsan et al. also determined that the P4P programs should be structured in a way to ensure the reduction in inequalities and to improve the overall healthcare quality.

Averill, Goldfield, & Hughes (2011) reviewed the effectiveness of using outcomes and using performance to achieve healthcare needs. Averill et al. stressed that

healthcare should be accessible, cost-effective, and quality. However, performance may not yield all these requirements because P4P does not address costs associated with healthcare. It is unclear how some patients may experience unfavorable outcomes, and they may be forced to pay additional costs. Because P4P does not address such costs, the patients end up paying more. In the end, P4P may be ineffective. Consequently, Averill et al. proposed that the use of outcome is more effective in achieving healthcare needs.

Baxtera, Hewkob & Kathryn (2015) acknowledge the fact that P4P represents one of the funding models designed to promote the provision of cost-effective, accessible and high-quality patient care. Another funding model is activity-based funding. They examined how leaders are implementing these funding models. They found that most leaders perceive the implementation process as a complicated process that requires many strategies. Some of the requirements discovered include the organizational commitment, enough infrastructure, human and IT resources and change elements.

Cromwell et al. (2011) offers a balanced approach and assessment of P4P. The authors conducted a comprehensive review of the characteristics of P4P programs and analyzed its strengths and weaknesses. It is discussed how healthcare workers tend to give patients excellent services when they are paid well and provided with good working environments. The rigorous analysis and evaluation of the research topic make this book a significant source of information on P4P programs. The study considers all the positives and the negatives that P4P initiatives bring to the healthcare arena. However, the positives outweigh the negatives and thus the relevance of it to boosting healthcare effectiveness, quality and value.

Donev (2005) examines the nature of the standard used to earn and distribute the incentive payments. This is an informative source as it offers credible information concerning the Centers for Medicaid Services' emphasis on the importance of quality healthcare and policies regarding P4P. In this author's articles alternatives solutions were offered; making this article the first at being the focus of provisions of healthcare that meets a consensus-based quality standard. Another alternative provided within the article is that actual provider performance could be utilized to set up an empirical benchmark. As such, competition among providers would determine the standard and distribution of incentive payments. The third alternative focuses on quality improvement in the healthcare sector, in that a provider whose performance that is less than desired could earn incentive payments; provided it improves its performance. The three payment approaches discussed in this article are identified as an effective strategy to ensure healthcare workers receive incentives without discrimination.

Eijkenaar et al. (2013) evaluated the effects of P4P by utilizing systematic literature reviews of twenty-two articles found in five electronic databases. What these articles discovered is that although P4P can be cost-effective, the findings are non-conclusive. This discovery revealed that the effectiveness of P4P depends on many factors and that several design features are needed to reach and establish desired effects of P4P.

Ertok (2015) evaluated P4P in Maternity Care and presented a study designed to assess the significance of introducing P4P on elective and emergency C-Sections in England. It was discovered that P4P did not lead to any noticeable improvement in C-Section rates; instead it shows that hospitals tend to lower the amount of emergency C-

Sections following the introduction of the program. The weak evidence is attributable to the hospitals with less control over the occurrences of some conditions, in which case, P4P may not influence to change such factors. Based on the contents of this article, some factors are beyond human control and should be considered when designing P4P programs.

Girault, Lalloué, Moisdon, & Minvielle (2017) intended to explore the impact of P4P in hospitals. To achieve this, the researchers conducted a pilot program across 222 hospitals located in French. They evaluated leaders and front-line staff. The findings from the survey and interviews conducted reveal that there are disparities on how leaders and frontline staff perceive the program. Whereas leaders were mostly affirmative about the program, the frontline staff seems unaware of the program, which implies that the adoption level is low.

Gonzaleza et al. (2007 documents a study conducted to evaluate the implementation of P4P in urology. The article revealed that the successful implementation of P4P depends on whether it meets three core areas. These areas include structure, process, and outcome; however, the authors are worried that most of the implementation process fails to consider these areas. Although government and private payers are determined to implement P4P, specific evidence-based metrics for urology may negatively hinder the implementation. Therefore, a call for collaboration between government and private payers with the urology department in identifying areas should be considered during implementation.

Hahn (2006) produced a rich source of knowledge on the P4P program when writing the dissertation. This author provided a report for the Congress Research Service

that gives more information about P4P in the healthcare sector. The journal describes the prerequisites for the success of P4P programs, and it outlines the elements of P4P; starting with its objectives, measures and performance standards for establishing the target criteria, as well as the rewards that are at risk. The article gives detailed information on the program and how the government is involved in rolling it out to both public and private health care.

Kirchner (2015) journal focused on the patients with diabetes. This journal shed light on a lot of confusion surrounding the proper administration of statin medications to diabetic patients. Diabetes is a life-threatening ailment and the patients suffering from it should be given access to affordable and high-quality health care. The objective of using statin medications depends on the patient’s risk of developing cardiovascular problems. This article clarified the confusion of the new Standards of Medical Care in Diabetes dispensed by the American Diabetes Association in 2015. It was recommendations provided by the American Diabetes Association are quite different than those outlined by the American College of Cardiology in 2013. The relevance of this article seeks to include the diabetes health care issue in the P4P programs.

Kristensena, Siciliani, and Sutton (2016) conducted a study on how the price and incentive payment relate to P4P programs. In their findings they suggest that price setting should reflect the benefit of the expected health gains and that the patients’ benefit from the profits and opportunity cost of public funds. This article also focuses on the measures used to determine the reimbursement rate and processes. The authors reveal that P4P is making the healthcare verifiable because every physician or healthcare practitioner must submit a report evaluating their performance in different areas included in the P4P

program. The researchers recommend that policymakers should apply incentive theory in determining price-setting for quality.

In Mendelson et al. (2017) journal, the authors conducted a study that examined the benefits of P4P. This article is relevant to the research topic as it provides previous studies on P4P programs' effectiveness in an ambulatory and health outcomes setting. The objective of the study was to expand and update the previous systematic reviews scrutinizing the impact of P4P programs that focused on the physician, managerial, group, or institutional levels on the process of care and patient results in inpatient and ambulatory contexts. The results of the study concluded that P4P programs might be related to improved methods of care in ambulatory contexts, but consistently impressive associations with improved patient health outcomes have not been proven in any setting.

Miller & Sim (2004) surveyed the physician using electronic medical record (EMR) technology. Electonic medical records is an emergent technology that enables doctors to pursue more robust quality improvement programs like P4P. According to these authors, using this technology is time saving and effective. Based on the survey, the authors identified quality improvement in healthcare as being heavily dependent on the physician's use of an EMRs for their daily work. This journal is significant to the topic of research since it focuses on how the quality of healthcare can be improved using technological advancements since such technologies facilitate the success of programs such as P4P.

Milsteina & Schreyoegg (2016) conducted a survey evaluating the effectiveness of P4P programs among Organization for Economic Co-operation and Development (OECD) nations. The study focused on the design and effects of P4P systems; however,

during their research, it was found that the impact of P4P is unclear. The authors also noted that public reporting and increasing the awareness of data recording might influence the nature of the impacts. In the conclusion of their research, it was concluded that P4P programs have not yet achieved its expectation. As such, the researchers suggested that policymakers still need to do a proper cost-benefit analysis to ascertain whether the benefits outweigh potential risks.

Natarajan & Kanwal (2015) acknowledged that P4P programs have become widespread in the U.S. after the adoption of Affordable Care Act. The authors also state that while programs are designed to ensure physicians and other healthcare professionals are rewarded based on the performance of selected quality measures, it has turned into a penalty-based program. This particularly concerns the way the program approaches the measures related to hepatitis C virus infection. They reveal that most physicians have issues submitting measures related to chronic liver diseases because they are ambiguous; thus, resulting in the providers not being reimbursed accordingly.

Nix (2013) journal gives a detailed explanation of the Patient Protection and Affordable Care Act of 2010, which is known as Obamacare. The author elaborates the Obamacare Act created several new medical programs intended to enhance the quality of healthcare in the U. S. by using P4P strategies to exert pressure on the medical providers. This is a credible source of information on government's role in the P4P programs and what it means to the quality of healthcare. The author describes these program payment plans as being based on performance metrics found in specific care processes, patient satisfaction surveys, and patient outcomes. However, the author presented an argument

that incentives offered by the government do not necessarily guarantee value or benefit to the patients.

Petersen, Woodard, Urech, Daw, & Sookanan (2006) conducted a systematic review of P4P; seeking to find answers to the question if P4P improves the quality of healthcare. This article is significant to the topic of research as it divulges credible literature review and studies. The authors conducted various studies and analyzed whether explicit financial incentives are responsible for enhancing the quality of the healthcare industry. The authors examined various measures of care processes are aimed at preventive services. The majority of the surveys revealed a positive correlation between P4P and access to healthcare, while another study presented proof of gaming behavior. This revelation signified an undesirable effect on access to healthcare.

Ryana & Damberg (2013) present findings from their study, which was designed to evaluate the effectiveness of P4P. The authors explored programs like the Hospital Value-Based Purchasing Program, Physician Value-Based Purchasing Modifier, and Medicare Advantage Quality Bonus Program. The researchers found a mixed picture of the overall effectiveness of such programs, and they recommend and propose that some conditions under P4P could be more effective. Citing the study by Flodgren et al., the article revealed that monetary incentives can enhance the processes of care but not compliance with a pre-specified population quality target. Citing the work of Van Herck et al., the article noted that incentives often motivate low performers and may not motivate higher performers.

Scott, Kirkegaard, Baker, & Murcko (2004) gives an elaboration of the basics of P4P programs. This article is critical to the research topic because it provides the

necessary knowledge about the relationship between P4P plans and physician performance in the provision of quality healthcare. The authors state that even amongst the healthcare professionals who are motivated to offer the best care to the patients, the payment structure and incentives may not enable the necessary actions required to improve the quality.

The adoption of the P4P presents a significant role in the Medicaid program that aims at improving quality of care provided. However, it is limited to motivational effects from financial and complicated care requirements for patients since most of them are managed by private sectors. P4P dramatically exists in the United States; however, it is under the management of the private sector health insurance companies' plans and employment cooperatives (Baker & Carter, 2005).

The programs target hospitals providing them with financial incentives for achievement of their goals. The hospital-based the P4P program has also been adopted in the U. S. where some payments of the capital are set aside to cater for financial rewards for goal and objective achievement. The urge for the P4P has been adopted by the Medicaid agencies resulting in more than 28 state Medicaid agencies adopting the P4P program making it more vital for the safety-net providers (Werner & Dudley, 2009; Baker & Carter, 2005).

The effectiveness of the P4P in the safety-net setting is limited due to lack of empirical evidence. This is because of the studies focusing on programs on the commercially insured population hence making the P4P less potential in improving quality in the safety-net setting. The P4P links financial rewards to goal performance are

hence enhancing provider motivation, even though caregivers are not substantially motivated by finances concerning safety (Goldman et al., 2007).

The research was conducted in two safety-net providers: Safety-Net Setting A and B. Safety-Net Setting A adopted the P4P program in 2006 for its network of community and linked it to four clinical programs: annual retinal eye exam, yearly HBA1c, the prescription for controller medications for patients, with asthma and six-well child visits. Administrative data used in tracking performance involved ten individuals with relevant clinical conditions. The community health centers were then allowed to distribute money to individuals informs of incentive payments to meet the plan average successfully (Werner & Dudley, 2009).

In Safety-net setting B, primary care physicians were employed by medical groups since it is a teaching hospital. The focus was on diabetes care component that was introduced in 2002 which offered incentives to annual HBA1c tests, yearly LOL check and annual foot exam. Therefore, each physician had to have a whole patient panel of at least 1500 and receive an individual payout of $ 4,000. The assessment was done using random audits of physicians. Multiple sources of data were used and collected three types of data. Interviews with key informants, surveys and questionnaires were used in the validation of attitudes of physicians participating in the P4P programs (Meterko et al. 2006). Clinical information was also used in the assessment of the impacts of the P4P programs on quality targets.

During analysis, the separate setting analysis was done and then the integration of the results across the sources to strengthen their validity. The implementation and impact of the P4P in both settings are similar but different in sponsorship. The results show that

there is no evidence that the P4P compromises quality and leads to sustainable improvements in clinical quality (Weisfeld, 2011).

The Affordable Care Act of 2010 has resulted in a huge trend in the market regarding roles, responsibilities, and authority of healthcare stakeholders. For example, the formation of large hospital health systems, the continuation of private insurance coverage and Accountable Care Organizations. In tracking trends and tracing innovation patterns, the ACA identifies highly important strategies such as the growth of structured quality measures, revenue-driving consolidation, patients becoming more informed customers and specialty drug use in driving the cost of care (Hoyt & Yoshihashi, 2014).

For instance, in patients, as consumers making more informed healthcare choices, the evolution of healthcare models is seen that allow consumers to take charge of their healthcare. Patients do this through data and information accessibility that will enable them to dialogue with their doctors about options of diagnosis. Through cost estimation, consumers can understand cost and quality in assessing care options. The development of personalized movements towards health treatment helps to manage personal health through genetic, behavioral and digital tool advancement and the health insurance products and structures consumerism hence helping in cost management (Hertz, 2010).

Adults under the consumer-directed health plan (CDHP) are more likely to exhibit cost-conscious behaviors hence helping pharmaceutical industry in meeting its sales expectations. The United States spends more on healthcare even though it is not better in quality hence inconsistent since it involves Fee for Service. Through the implementation of National Quality Strategy in March 2011, the quality is aimed to increase with reduced costs. Transparent approaches are used to give the public an opportunity to review and

comment on their measures. The greater innovations are seen in biological and special drugs hence posing burdens to insurers and pharmacy (Nambiar, 2011).

Healthcare quality improvement refers to the degree to which health services for individuals and populations to increase the likelihood of desired health outcomes consistent with current professional knowledge (Kohn, 2000). Organizational quality improvement may entail total quality management, Six Sigma, and Deming Model. However, patient safety still stands out as a challenge with limited evidence of the reducing costs and improving quality of the P4P. The P4P works under the domains of safety, effectiveness, patient-centeredness, efficiency, and equity with concepts of patient safety and satisfaction.

The P4P works under a structure that includes best practice pricing, normative pricing, quality structures for pricing and safety quality pricing. Worldwide implementation of the P4P programs has been observed with variations in size, budget, participation, and payment structure. Such include Participating Hospital Agreement (PHA) Incentive Program in Michigan, CMS Premier Hospital Quality Incentive Demonstration Project (HQID), and The Community Care Transition Project both in the United States. Most of the programs focus on how complaint the providers are to clinical guidelines and work on provision of financial incentives.

Using the P4P systems, there has been a tremendous lesson learned such as access to quality information about the performance of providers, the establishment of direct links between quality and cost and works well for primary care services through the establishment of clinical guidelines. However, some challenges are involved with the P4P system such as the lack of evidence in support of the theory; high numbers of low-income

patients receive funds in competition with the wealthy organizations (Werner & Dudley, 2009).

When clinical processes that improve outcomes are not put into practice, there is need to address the issue. Hence, large employers and Medicare experiments are carried out using the P4P like provider payments with the inclusion of the agency theory framework. This aims at improving quality of healthcare to patients and lowers the costs of care. Using this theory, contracts that reward desired behaviors and outcomes in considerations of participants and agents are designed. Therefore, the agent performs the expected work with minimal costs involved. However, high costs may be incurred by the principal in measuring outcomes and paying agents based on outcomes with some limitations of implementation costs, variations, and standardization.

The P4P concept goes back to 1990 and entails the provision of the data-based financial incentives to the providers of healthcare and health plan (Baker & Carter, 2005). The proponents of P4P have continued to differ on the goals. However, they are focused on the triple aim of lowering costs, quality care, and better health outcomes. Better care outcomes are primarily measured by concentrating on the services and information provided, as this determines whether the care matches the best medical practices. Other measures of quality might focus on patient satisfaction; including the utilization of the new technologies, as well as the appointment of the staff credentials (Pearson et al., 2008). On the other hand, better health is evaluated regarding the patient health outcomes often adjusted to account for the factors beyond the control of the provider. Finally, the cost is measured on the per-patient basis. It is believed that better quality care and

preventive care will evidently result in savings. All these measures can be adopted in P4P initiatives to develop positive and negative incentives for the providers and health plan.

Over the years, the healthcare system of the U. S. has been designed revolving around paying individual providers based on services offered. Consequently, the government, insurance firms, economists and care providers have argued that this system has led to the skyrocketing health care costs since it is comprised of built-in incentives to promote specific unnecessary care. According to Ryan, Blustein & Casalino, (2012), the concept of P4P is an attempt to get provider incentives right by rewarding providers for their delivery of quality care. The initiatives of P4P have already been set up within the Medicaid, Medicare and private-sector insurance plans, and in new arrangements to facilitate coordination of patient care majorly propelled by the Affordable Care Act (ACA).

The adoption of the P4P presents a significant role in the Medicaid program that aims at improving quality of care provided. It is limited to motivational effects from financial and complicated care requirements for patients since most of them are managed by private sectors. P4P dramatically exists in the U. S.; however, it is under the management of the private health insurance companies' plans and employment cooperatives (Baker & Carter, 2005). The arrangement targets hospitals whereby they are provided financial incentives for achievement of their goals. The hospital-based the P4P program has also been adopted in the U. S. where some payments of the capital are set aside to cater for financial rewards for goal and objective achievement.

The urge for P4P programs has been adopted by the Medicaid agencies resulting in more than 28 state Medicaid agencies adopting the P4P program making it more vital

for the safety-net providers (Werner & Dudley, 2009; Baker & Carter, 2005). The effectiveness of the P4P in the safety-net setting is limited due to lack of empirical evidence. This is because of the studies focusing on programs on the commercially insured population hence making the P4P less potential in improving quality in the safety-net setting. The P4P links financial rewards to goal performance are thus enhancing provider motivation, even though caregivers are not substantially motivated by finances concerning safety (Goldman et al., 2007).

The research was conducted in two safety-net providers: Safety-Net Setting A and B. Safety-Net Setting A adopted the P4P programs in 2006 for their network of communities and linked it to four clinical programs: yearly retinal eye exam, annual HBA1c, the prescription for controller medication for patients with asthma and six-well child visits. Administrative data used in tracking performance involved ten individuals with relevant clinical conditions. The community health centers were then allowed to distribute money to individuals in the form of incentive payments to meet the plan average successfully (Werner & Dudley, 2009).

In Safety-net setting B, primary care physicians were employed by medical groups since it is a teaching hospital. The focus was on diabetes care component introduced in 2002, which offered incentives to annual HBA1c tests, and annual foot exams. Therefore, each doctor had an entire patient panel of about 1500 and received an individual payout of $4,000. The assessment was done using random audits of physicians. Multiple sources of data were used and collected three types of data. Interviews with key informants, surveys and questionnaires were used in the validation of attitudes of clinicians engaging in the P4P systems (Meterko et al. 2006). Clinical

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The Affordable Care Act of 2010 has resulted in a massive trend in the market regarding roles, responsibilities, and authority of healthcare stakeholders, for instance, the arrangement of large hospitals, the continuance of private insurance coverage and Accountable Care Organizations. In tracking trends and tracing innovation patterns, the ACA identifies highly essential strategies such as the growth of prearranged quality measures, profit-driving consolidation, patients becoming more informed customers and specialty drug use to drive the cost of care (Hoyt & Yoshihashi, 2014). For instance, in patients, as consumers making more informed healthcare choices, the evolution of healthcare models is seen that allow consumers to take charge of their healthcare. Patients do this through data and information accessibility that will enable them to dialogue with their doctors about options of diagnosis. Through cost estimation, consumers can understand cost and quality in assessing care options. The development of personalized movements towards health treatment helps to manage personal health through genetic, behavioral and digital tool advancement and the health insurance products and structures consumerism hence helping in cost management (Hertz, 2010).

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expectations. The United States spends more on healthcare even though it is not better in quality therefore inconsistent since it involves Fee for Service. Through the implementation of National Quality Strategy in March 2011, the quality is aimed to increase with reduced costs. Transparent approaches are used to offer the public a chance to assess and remark on their measures. The most exceptional innovations are seen in biological and special drugs hence posing burdens to insurers and pharmacy (Nambiar, 2011). Healthcare quality improvement implies the level at which healthcare services for personas and larger population to enhance the probability of preferred health outcome steady with present proficient knowledge (Kohn, 2000). Organizational quality improvement may entail total quality management, Six Sigma, and Deming Model. However, patient safety still stands out as a challenge with limited evidence of the reducing costs and improving quality of the P4P. The P4P works under the domains of safety, efficiency, patient-centeredness, and justice with concepts of patient safety and satisfaction.

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information about the performance of providers, the establishment of direct links between quality and cost and works well for primary care services through the establishment of clinical guidelines. However, some challenges are involved with the P4P system such as the lack of evidence in support of the theory; high numbers of low-income patients receive funds in competition with the wealthy organizations (Werner & Dudley, 2009).

Fox (2012) claimed that, when clinical processes that improve outcomes are not put into practice, there is need to tackle the issue. Hence, giant employers and Medicare experiments are carried out using the P4P like provider payments with the inclusion of the agency theory framework. This aims at improving quality of healthcare to patients and lowers the costs of care. Using this theory, contracts that reward desired behaviors and outcomes in considerations of participants and agents are designed. Therefore, the agent performs the expected work with minimal costs involved. However, high costs may be incurred by the principal in measuring outcomes and paying agents based on outcomes with some limitations of implementation costs, variations, and standardization.

The ACA is comprised of numerous provisions that are primarily intended for encouraging overall improvement in the care quality, but it is worth noting that some are not strictly P4P programs (Rosenthal et al., 2006). For instance, the Medicare's Hospital Readmissions Reduction Program that was adopted in the year 2012 can cut down payment by about one percent to health facilities with extremely high rates of preventable readmission for patients with heart attack, heart failure, or even pneumonia. One of the famous programs within this law that would have to pay for the performance is Accountable Care Organization (ACOs). It is fundamentally a group of providers that came into an agreement to coordinate care effectively and at the same time to be held

answerable for quality and cost of services offered (Goldman et al., 2007). Other popular programs are, first, value-based purchasing, Medicare advantage plan bonuses, and physician quality reporting. The ACA has been established to have expanded P4P efforts in hospitals through creating Hospital Value-Based Purchasing Program.

In line with this, hospitals will be rewarded according to performances about a set of quality metrics. The healthcare laws further extended throughout 2014 the Medicare Physician Quality Reporting System that provides financial rewards to all the providers for reporting quality information to CMS. Ryan & Blustein, (2011) asserted that the ACA additionally offer specific bonus payment to the Medicare Advantage plan that would be able to accomplish four-star ratings on a five-star quality rating scale. Research on the impact of P4P has arguably found a mixed result. For instance, based on Premier Hospital Quality Incentive Demonstration project, it was shown that health facilities in the demonstration indicated a promising improvement in the overall quality than a controlled group. However, it was also found that the impacts were only short-lived and within five years, there existed no difference in the performance score between the participating facilities and a contrasting group of health care centered not included in the study (Baker & Carter, 2005). One of the probable explanations for this is that performance was improving widely throughout the whole hospitals. Majority of the hospitals have reported being concerned about being openly "shamed" due to displaying poor performances thus, they put more efforts with the aim of closing the quality gap.

Another study that assessed the impact of Medicare's Hospital Value-Based Purchasing Program by Werner established that a portion of 1% would change the payment to about two-thirds of the acute care hospital. Such a low inducement arguably

raises questions whether the program would significantly change the care quality. Andrew M. Ryan from Cornell University, on the other hand, analyzed the first years of Massachusetts Medicaid hospital P4P programs, that provided excellent monetary rewards for the improvement of care for pneumonia and even for the prevention of surgical infection and identified no progress in overall quality (Felt-Lisk, Gimm & Peterson, 2007).

Irrespective of the limited evidence on the efficiency of P4P, the system has remained popular mainly among the policy makers and both private and public insurers as a vital tool for the improvement of care quality and contain the cost of care. All P4P's supporters have shown that their principal objective is measuring the quality of care and motivate clinicians to advance it. The component of reducing costs has been integrated into these arrangements recently (Felt-Lisk, Gimm & Peterson, 2007). Currently, providers believe that measuring both the cost and quality are critical to ensuring that quality does not drop even as the cost is lowered. Some providers have also remained skeptical of P4P arrangement; even though they agree with the wish to address improvements of quality, they are disturbed that the fundamental objective of P4P is cost repression at the expense of patient's care. The other critical issue for the clinicians is related to the cost of health information technology's adoption need to collect data and report the findings. Based on the American Academy of Family Physician, P4P incentives ought to be huge to enable the clinicians to recoup extra administrative expenditure while providing key incentives for improvement of quality (Felt-Lisk, Gimm & Peterson, 2007).

In relation to the safety-net clinicians, there have been concerns concerning the effects of P4P approach on the disadvantaged and the poor population. More particularly there are fears that such arrangements might make racial and ethnic disparities within care provision in case providers avoid patients who might lower their performance scores (Werner et al., 2011). Based on a research by Alyna Chien at Weill Cornell Medical College, it was established that the medical group that was looking after patients within low-income regions of California obtained lower P4P scores. Reasons behind such situation were that they were majorly serving patients with language barriers and limited access to transport facilities. Those hospitals that seem to be performing poorly regarding cost and quality metric are mostly associated with services meant for the elderly blacks and Medicaid patients. In another study on the Medicare data by Kaiser Health News, it was shown that health facilities that attend to the broader population of patients from low-income backgrounds would be stricken from the penalty for obtaining an overly higher fraction of the preventable hospital readmission. Safety-net hospitals evidently asserted that the higher rates of admission mirror their patient's poor accessibility to medication and physicians (Chie et al., 2012).

P4P arrangements are more probable to enlarge rapidly throughout the US health care in the future particularly with the adoption and execution of the ACA. Modern experiences with P4P initiatives have raised numerous questions which evidently demand further research. For instance, how substantial should the reward be to generate the desired change? How frequent should the awards be distributed? How should performance improvement be sustained? What impact would the arrangements have on

health systems believed to be financially weak or those serving many ethnic or racial minorities?

Merging Technology with P4P Challenges

It has been established that in a P4P program, healthcare providers receive financial incentives once they achieve set targets on performance measures that are already predefined. The premise is that health care providers are responsive to financial incentives awarded to them for reaching a target. The goal of a P4P program is to improve the outcome of the patient while eliminating unintended consequences. It could also mitigate against cost if it can contribute to the better prevention and disease management and by incorporating efficient measures (Doran, Kontopantelis, Reeves, Sutton & Ryan, 2014).

To determine how merging technology with P4P programs impact patient outcomes will include investigating the outcome of the interaction of technology and P4P on the services delivered to patients. It will help to establish if there is a relationship between the two variables, and define the meaning, interpretation, processes, and relationships that exist between the variables. This strategy can be obtained from descriptive data that interpreted using different techniques. Nonnumerical data, therefore, will be used as this researcher seeks to interpret the meaning from collected data to understand the topic under investigation.

Technology advances daily, and it is critical that businesses make every effort to take advantage of the technology splurge. Depending on who is asked about healthcare technology, the feedback varies. While some healthcare providers support the use of technology, some feel that it poses a whole range of challenges to the implementation of

P4P programs; given that performance will be based on metrics that can be understood by information technology. Another problem that technology brings to the forefront is that it may even be necessary for some organizations to find alternative funding resources to assist them with this task. The truth is that using technology along with the appropriate P4P programs produces opportunities for obtaining more accurate data, as opposed to deciphering from handwriting documentation, which we all know can be extremely difficult and exhausting and unsafe for the patient. The reason for this revelation is that an individual's writing can prove to be very illegible at times; thus, increasing the risk of error when diagnosing a patient's condition.

Despite having many advantages, information technology can lead to problems, as computer systems are sometimes attacked intentionally or unintentionally; both from internal and external sources. Some employees would like to manipulate the system to show impressive performance; thus, leading to higher pay. Such systems should be secured from unauthorized entry and manipulation of information. The process of merging P4P programs with technology should also consider the different types of applications, their ease of use, and the type of output desired from the systems, the configuration of the systems, and the security of the systems and networks (Hennink, Hutter, & Bailey, 2015).

Electronic medical records provide opportunities for physician-to-physician consultation. By not having this capability, it slows down the process of diagnosing a patient's condition, and treatment resolutions. The inability to access advanced technology information reduces the overall quality of patient care. Some medical institutions face challenges with technology; one being the most critical element to

experiencing positive patient outcomes. One of the main difficulties comes from a financial perspective, as it can and sometimes do pose significant barriers to purchasing and implementing the appropriate electronic health record systems. It is challenging to establish the right information technology to be used, establishing indicators and the design of a balanced scorecard and the availability of excess information that needs to be sifted through to obtain reliable and accurate information (Britton, 2014; Vilaseca et al., 2009).

The use of information technology in the U. S. represents a paradox in that much of the hardware for the healthcare infrastructure is developed in the U. S., yet the system relies on a complex framework compounded by the pluralism of the country that has made it challenging to establish national standards (Maynard, 2005). Technology can be used to simplify some of the challenges experienced by the healthcare system by incorporating its capabilities to the entire process contributing to improved performance derived from speedy processing and sharing of information.

Resolutions for Technology Implementation Challenges

In times when medical facilities are faced with financial challenges, there are organizations geared towards helping medical institutions achieve the overall highest standard of quality services, by assisting them with the implementation, upgrading and necessary training of staff on the new technology. For example, McKesson Provider Technologies is a healthcare information technology company, dedicated to delivering comprehensive solutions with the power to make a difference in how you provide healthcare (McKesson, n.d.).

Quadramed is another organization geared toward helping medical facilities provides the highest in quality care. Quadramed health information management solutions provide a powerful link between access, care, and patient revenue. “With patient information being a key element of quality care, their health information management solutions enable healthcare organizations to efficiently manage information critical to all processes within their facility” (Quadramed, 2014).

The Siemens Corporation is yet another organization which has designed software applications to assist healthcare facilities with keeping in compliance with regulatory requirements. Siemens invested in the combination of state-of-the-art laboratory diagnosis and imaging technologies to allow for detection of disease at very early stages (Siemens Corporation, 2009).

It is necessary to ensure proper training is conducted for all providers to ensure that the primary stakeholders understand all the different aspects, and they know their roles and responsibility. The information system should be simple to operate and manage. It should also be compatible with the other systems within the current network. Care should be focused on ensuring that the information technology does not take precedence over other initiatives like managing the organization, motivating and staffing (Hennink et al., 2015).

Chapter II Summary

P4P undoubtedly has a positive impact on social change because it involves administering preventive health care screenings. When the appropriate preventive health care is administered to patients, their medical conditions (if any) have a stronger chance of being diagnosed earlier and treatment plans delivered much quicker. When technology

is merged in conjunction with P4P programs, it gives medical professionals a better opportunity to share and discuss medical care options without having to manually copy and send patient files to their desired location for referrals or second opinions. The research conducted for this study will be a basis used for future research, as it provides the basic information required to understand different perspectives of P4P. It is necessary to note that P4P programs are tools that not only help health caregivers earn from the best they give, but it enables patients to get the relevant and best services for what they pay. As such, P4P programs need to be incorporated in all healthcare organizations in both the public and private sectors.

Chapter 3: Research Methodology

Introduction

The purpose of this study was to gain a better understanding of how P4P programs in the healthcare industry encourage positive outcomes when technology is used to develop, track, and monitor preventive healthcare initiatives designed to lead medical facilities towards quality performance improvement. In Chapter 3, I outlined the qualitative interview approach used to identify participants for the study. I also revealed how to ensure a positive outcome within the qualitative interview process. The list of qualitative questions for the study is also included in Chapter 3.

There is insufficient literature that provides step-by-step instructions on how to successfully implement P4P programs and merge them with current initiative efforts. Alternative solutions are also provided for medical facilities that may face challenges with securing the proper funding to implement or upgrade their current technology. The study site is an organization based in California, and it has one of the most successful P4P programs that work with current initiatives, as their measure sets are broken down into different domains, like cardiovascular, diabetes care, maternity, prevention, and respiratory. The study site assisted with the development of core measure sets that serves as guiding principles to inform the selection of appropriate measures.

The Institute for Medicine (2011) recommended that P4P for physicians improves the quality of healthcare. Financial compensation for the healthcare providers should be proportionate to the care they provide to patients. According to this concept, improvements in the performance of the provider lead to an overall improvement in the quality of medical care. However, this assumption remains unproven, in that, if such an

approach is correct, it can be assumed that assessing the provider performance should follow quality improvement principles that are currently in use in a healthcare setting. Such principles apply to systems and microsystems in a wider network and may be adapted to evaluate the performance of an individual provider or even groups in a discipline.

P4P initiatives measure the contribution of the care provider under assessment, independent of the contribution of other components that includes other providers. It assigns a monetary value to the improvement measured that necessitates value judgment and is arbitrary when two groups of providers are compared in different settings. A step to assess provider performance is choosing between one or more measures of performance, which are known as the metrics. Poor selection of the indicators contributes to limited efforts. Data for the entire process must also be extracted promptly (Britton, 2014; Campbell, Reeves, Kontopantelis, Sibbald, & Roland, 2009; Silverman, 2011).

Data Collection Process for a Qualitative Study

The data collection consisted of applying a basic qualitative method; a semistructured, qualitative interview approach was applied to this study. It is a framework where the explanation of how practices and standards are documented and achieved, challenged, and reinforced by the researcher. The semistructured data collection process also allowed the participants time to provide feedback with minimal interference of the entire process, as each participant was required to answer open-ended questions. Similarly, it presented an opportunity for me to follow-up and remind the participants to complete the interview questions promptly. This strategy also allowed for proper planning; more interview open-ended questions can be sent to the respondents if it

is determined that the response rate is not enough. The questions were sent to the respondents via E-mail using my Walden E-mail address.

The data collection process involved basic qualitative methodology, using a semistructured, qualitative interview approach to study the impact of merging technology and P4P on the outcome of a patient. Nonnumerical data were used to understand the topic under investigation. Qualitative researchers focus on the micro level of P4P and the adoption of technology, as well as how the two can influence patient outcomes (Britton, 2014).

Telephone interviews were scheduled after the interview questions were successfully distributed to the participants to review and use as talking points during the telephone interviews. The telephone follow-up interviews were recorded. In some cases, phone interviews can be rendered unreliable. Because there is no face-to-face contact between the interviewer and the participants, it is possible that all of the information retrieved will not be reliable as the interviewer is not able to capture nonverbal cues that enhance communication.

Secondly, when the researcher is not familiar with the topic of study, it can be difficult to gauge whether the information provided is true or false, a factor that would most likely be ruled out by face-to-face interviews. However, I am familiar with P4P. The interviews were used as a means of confirmation about P4P programs in general, and how they can be implemented to ensure that both the patient and provider reap the benefits it offers. I embraced the likelihood of the participants engaging into discussions about P4P, thus allowing them to veer off the main points. However, was some structure incorporated at this juncture because it was possible that not all the information retrieved

would fall under the valid scope of the discussion. Although it is possible that clarification may not be possible through presenting the interview questions via E-mail, the telephone interviews ensured that the questions were not misinterpreted by the participants who may or may not need further clarification.

Data Collection and Methodology

Establishing the population under study is crucial. Based on prior experience in the area, thousands of healthcare providers need to be sampled to select the appropriate number of participants. To ensure accurate data are obtained, interview questions were prepared, and data management conducted; some processes included data management and data entry where data from the respondents were recorded and analyzed through content analysis method.

Interviewing is the most common form of data collection when conducting qualitative research. According to Saldaña (2015), qualitative interviews are frameworks that allow both standards and practices to be recorded, reinforced, and achieved. For the study, I used a semistructured method. The semistructured method entailed collecting data from three or four participants within the study site. Interview questions were sent to each participant via E-mail, using my Walden University E-mail address. Telephone interviews were scheduled to discuss the previously distributed interview questions via my Walden E-mail account.

Qualitative Interview Method Sufficiency

In preparation for the qualitative interviews with the study site, interview invitations were sent out to the participants ahead of the scheduled recorded telephone

interviews. The E-mail invitations included verbiage introducing myself as a student enrolled in the Walden University Doctoral Program, and that I was conducting a study on P4P. If the participants agreed to the interview, they were instructed to enter the words "YES" in the subject; alerting me to send consent forms to each participant. Once the consent forms were completed and returned, a list of interview questions were sent to each participant. All participants were instructed to enter the words "I CONSENT" in the subject line, before any interview questions were forwarded to their attention.

The strategy for identifying multiple participants within the study site was strategic in nature, in that my objective was to obtain different views or opinions about P4P and the successful initiatives involved with improving quality of care outcomes. Sending interviews questions ahead of the scheduled telephone interviews is just as valuable as face-to-face and recorded interviews, thus making the entire process more comfortable for both the interviewer and the participants. It gives participants time to relax and think about their answers, ensuring that every response is accurately captured in the participant's own words.

Transcribing, Organizing and Debriefing of Data Collection

A summary of the interview responses was developed at the completion of the interview process. The questions were focused on developing initiatives that track and trend provider performance, while setting attainable benchmarks over a timeframe. Due to the initial interview questions being answered during the scheduled and recorded telephone interviews, all data collected were exported to an Excel worksheet to track and trend, or perhaps identify, any similar patters within the responses of all the participants. All parties involved in the interview process agreed to this format. Setting the

appointment times was just as easy, as the participants were flexible with their time. As part of the instructions included in the interview process, all participants received an opportunity to see the results of the interviews before they were included in the final summary.

Data Analysis Plan, Coding Strategies, and Software Choices

The participants recruited for the semistructured interviews hold roles in the healthcare industry, as well as within their organization. Each participant was easy to access, and the E-mail approach was the best method to recruit all participants. P4P can improve healthcare delivery; reduce health disparities; and promote physician compensation, which will enhance the value of healthcare (Girault et al., 2017).

The data collection process involved basic qualitative methodology, using a semistructured, qualitative interview approach to send interviews questions via my Walden E-mail account. This process eliminated time constraint issues that can occur when trying to schedule appointments. There were no costs involved using this method, and it created a relaxed environment for all involved in the interview process.

Alignment of Qualitative Interview Questions

Once an approval for the proposal and institutional review board (IRB) application was secured for the study, I used the same basic qualitative research method described earlier, which is a type of a framework where the practices and standards are recorded and achieved, challenged, and reinforced by the researcher. I employed semistructured data collection processes throughout the study where the respondents were allowed time to express their opinions with minimal interference of the entire process. The participants

were required to answer open-ended questions that had already been preset. The questions were sent to the respondent via E-mail using my Walden E-mail address. The data collection phase involving in-depth interview questions was used to interview individual or even groups. The entire process was expected to last approximately 30 to 45 minutes for each participant.

The following interview guide is a schematic presentation of the questions distributed by the interviewer. Interview guides are used to explore the respondents systematically and in a comprehensive manner to achieve the optimum use of interview time. They also ensure that the interview focuses on the desired path. qualitative interviews are listed below.

RQ 1: What significant P4P initiatives drive quality of health provisions?

1. In respect to the P4P program, it is evident that physicians have improved their services and how they deliver them to patients. What is the key motivator in their service delivery?
2. How else can the healthcare providers be motivated apart from the payment initiative?
3. Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern their service delivery?
4. What are the parameters you use to measure excellent service offered by health care providers?

5. This plan motivates the health caregivers, and they seem to give impressive results. Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance?
6. In your course of the evaluation, what is the interval at which you do performance appraisals? Per day; week? What period do you consider reasonable?
7. I understand this program has been running for a while now. Do you have plans to incorporate other ways of rewarding performance other than payment?
8. During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges?
9. Benchmarking is a tool used to measure performance in most organizations. Do you benchmark your organization?

RQ 2: What additional programs can be integrated into existing P4P programs?

1. Your program has worked well over the years and has served its intended purpose. Do you feel it is necessary to incorporate other programs?
2. What expectations do you have when additional programs are incorporated into your system?
3. P4P has motivated health care providers to deliver quality services to patients. What extent do you think the program benefits the patients too?
4. Benchmarking and exchange programs help a lot in the improvement of any organization. As such, what arrangements have been made to ensure that health caregivers experience service delivery outside their work environment?
5. Normally, rewards are given to the best performers in most institutions. Can you tell me if you experience best performers in service delivery?

6. What form of rewards do you give to the best performers in your program?
7. During this study, it was discovered that there is limited literature discussing step-by-step instructions on how to successfully implement pay-for-performance programs into an existing structure. Can you provide some insight on where such critical information can be found?

RQ 3: How does merging technology with P4P produce positive patient outcomes?

1. Technology changes daily and new trends come up. What results do you expect when you incorporate technology into your existing program?
2. From your perspective, what impact does technology have on patients that enjoy the services offered by their provider?
3. The aim of any organization is to ensure that costs are controlled. What do the effects on the overall cost of a P4P program can be expected when technology is merged with P4P?

The purpose of this study was to gain a better understanding of the steps involved in successfully implementing P4P programs that lead to improved patient outcomes. To accomplish this task, the views of approximately three or four individuals from the study site were gathered to gain their perspectives or their knowledge of P4P in general, and how they work with clients daily to provide guidance with the P4P initiatives designed to help medical facilities improve their quality of patient care.

Ethical Procedures

Appropriate measures were taken to ensure that no ethical concerns exist in the basic qualitative method approach. No risks are involved with obtaining the needed data during the study. All steps taken during the study were also outlined in the IRB

application, and informed consents were sent out to all participants. The qualitative interview questions are listed in Chapter 3 and Appendix A, including all participants' answers.

If there were the potential for any ethical procedures to arise during data collection process, it would be due to not obtaining the proper consent forms. However, the confidentiality of the information was guaranteed, and the participants were informed that the data will be used for purposes of research only. Anonymity was also another factor that I considered throughout the process from data collection to data analysis. The participants have the right to agree or disagree with engaging in a study. They can also discontinue at any step if they are not willing to continue with the research (Hennink et al., 2015; Silverman, 2011).

Sufficiency of the qualitative interview was determined by its ability to collect data that can be used to conclude. The data collected must be able to achieve the desired objective for the study. It should not leave grey areas in the question under study but should exhaustively deal with the issue. I determined when to stop collecting additional data if no new data were acquired from subsequent interviews. If all the data from new qualitative interviews is the same as the previously obtained data, the researcher should stop any further data collection and start analyzing the already collected data (Hennink et al., 2015).

Drawbacks of Pay-for-Performance

The healthcare system (private or public) is exposed to problems that have been ignored for a long time. According to Maynard (2005), the following five issues affecting healthcare delivery is effectiveness in medicine, variations in clinical practices, inability

to determine the appropriateness of service delivery, patient safety, and policymakers who are reluctant to use patient-reported outcome measures. The effect of the P4P initiatives on patient outcome is contested with some studies showing varied results. The significant costs associated with the program worsens the situation with some studies indicated that such measures are counterproductive to their objective of improving patient outcomes. Therefore, the implementation of P4P programs needs long-term monitoring and evaluation. Further research on the issue is required to determine whether financial incentives are cost-effective interventions that improve the quality of healthcare (Mandavia, Mehta, Schilder, & Mossialos, 2017).

According to studies on hospital and physician performance in P4P, the size of the organization, the teaching status, practice type, and the age of the physician and their gender affected performance in P4P. For physicians and hospitals, a substantial proportion of minority and low-income patients received poor performance. The influence of information technology and staffing levels contributed to mixed results. Similarly, there are contradicting results on the effects of the likelihood of the bonus, its size and marginal cost on performance indicators that there are varied responses to financial incentives by different providers (Markovitz & Ryan, 2016).

Researcher Bias

The topic of my dissertation is How Merging Technology with Pay-for-Performance Impact Patient Outcomes. Basic qualitative methodology will be used for this study; using a semi-structured qualitative interview approach that involves sending interview questions to participants ahead of the scheduled telephone interviews. This strategy

eliminates the stress from the entire interview process for the participants. It also gives them an opportunity to provide thorough responses to the questions.

The research questions designed for my dissertation were developed from the perspective of a medical facility researching various organizations like the study site. This organization was selected because it is responsible for developing one of the top P4P programs in California. While this researcher is somewhat familiar with how P4P works, there is a lot more to these programs that meet the eye, and the interview questions are designed to provide clarity for medical facilities, as well as for this researcher.

Researcher bias can be avoided by first checking for alternative explanations from the various participants engaged in the study. The alternative explanations not only reveal each participant's knowledge of the subject, but it helps to formulate a complete picture of the topic of discussion. Ensuring that the participants have an opportunity to review the results of the data collection is another way of avoiding researcher bias, s this strengthens the participants trust in the researcher. Collaborating with the Methodologist would be the final strategy used to either identify if any gaps exist in this researcher's theory or perhaps confirm the conclusions of the data collection summary. Other ways of managing bias include reviewing institutional guidelines or different standards suggested that could help in the management of bias.

Chapter III Summary

According to de Bruin, Baan & Struijs, (2011) pay-for-performance is a model that rewards healthcare providers for meeting set targets for the delivery of healthcare through financial incentives. The providers receive additional or reduced payments based on their performance. According to the author, most of the incentives used include rewards that

are granted by performance. Some of the features identified by the authors include the type, nature, focal quality, the scope, the motivation, the scale, size, certainty and frequency, and duration. These features have different dimensions that apply to each. Based on the author summary, various studies showed positive effects of P4P on the quality of care delivered. In one of the studies, financial incentives promote better clinical management of patients with diabetes.

How merging technology with P4P impact patient outcomes is the focus of this study. Chapter 3 included a description of the nature of this study, which consists of qualitative interviews; using a practical framework. This strategy involved engaging in conversations with various stakeholders in the healthcare industry to obtain feedback on the effectiveness of P4P initiatives. A thorough discussion took place on the significant impact P4P programs have on both medical institutions and patients when the appropriate measures are applied. In chapter 3 the research methodology to be used for the practice qualitative exercise were revealed to confirm that this strategy of data collection does work.

In this research, the researcher will be interested in identifying how merging technology with P4P affects the patient outcome. The researcher will collect qualitative data using a semi-structured approach to conduct qualitative interviews. As previously stated, the data collection process will involve semi-structured qualitative interviews. Consent forms will be distributed to the participants, and the data collection phase will be conducted early, by sending the questions via email; using this student's Walden email address. The researcher will identify the challenges of merging technology with P4P programs and identify measures to ensure that the interviews are enough. The study will

employ different techniques for data analysis, and an analysis plan. A combination of coding strategies will also be used by the researcher. Lastly, the researcher will identify potential ethical issues affecting the research. A full description of the entire data collection process will be provided to all participants, as it is necessary to ensure that the participants thoroughly understand the research. The information system should be simple to operate and manage. It should also be compatible with the other system in the network. Care should be taken to ensure that the information technology does not take precedence over other initiatives like managing the organization, motivating and staffing (Hennink et al., 2015).

Chapter 4: Data Collection Results of Qualitative Interviews

Introduction

The topic of discussion for this dissertation was introduced in the previous chapters as "How Merging Technology with Pay-for-Performance Impact Patient Outcomes." This study was conducted using Basic Qualitative Methodology, and the semi-structured qualitative interview approach served as one of the data collection instruments. Before the data collection process began, this researcher only received partial approval of the IRB application itself. Based on IRB requirements, an authorization to precede with data collection efforts was conditional until a Letter of Cooperation was obtained from the research partner. Although it was a painstakingly long process to acquire this document, the Letter of Cooperation was finally secured over a month after this researcher's request to the research partner (Appendix A).

The Letter of Cooperation was immediately forwarded over to the IRB Office, which resulted in full approval to proceed with data collection granted the following day. After receiving full authorization to conduct research, critical members of the study site organization were contacted and informed about the IRB outcome and that this researcher was ready to move forward with the data collection component of the study. The study site then provided a list of participants from the P4P Value-Based Team who agreed to participate in the study. A copy of the informed consents was sent to all participants who decided to engage in the research project (Appendix B).

All participants were required to read the Informed Consent document thoroughly, and if after reading the consent form each participant was still in agreement with moving forward with the study, the participants were required to type the words "I

CONSENT" in the subject line when replying to this researcher via email. Once all four approval emails were received, part one of the data collection process began with first distributing the twenty-two-interview questionnaire to each participant individually via email; using this researcher's Walden University E-mail account (Appendix C) used to communicate with the research partner. Part two of the interview process consisted of scheduling recorded telephone interviews with each participant to discuss the previously distributed questionnaires.

Data Collection Efforts

The data collection efforts during this study mirrored the design introduced in chapter 3. The objective of applying the Phenomenology of Practice Theory was twofold: (a) to obtain varying perspectives or opinions about P4P in general from the study site staff working directly with the P4P program and contracted physician organizations and (b) to identify the different types of initiatives that can be developed and implemented to ensure positive outcomes of quality patient care.

At the completion of the data collection phase, all participant responses were transcribed, and a password protected summarized draft was sent to each participant for review. The password information was provided to each participant individually in a separate email, and all participants were asked to review their transcribed responses thoroughly and provide feedback as to whether they agreed to approve the summaries or preferred to edit their initial reactions. If the participants were in approval of their summarized responses, they were asked to reply to the email with the typed words "I APPROVE" in the subject line as confirmation that they were approving the interview transcripts.

All participants who expressed interest in modifying their answers to the interview questions were asked to make edits using a different colored font to provide a clear distinction between the initial transcribed document and the edited version. The next step in the editing phase was asking the participants to save their edited versions using the same password provided to them when they received their summary drafts and returned the protected documents to this researcher's Walden University email account. After the interview summaries were received, a couple of the participants realized they wanted to change their answers to make them more cohesive and provide more clarity in their responses. Participant GG0002-11012018 had an opportunity to see how she initially verbalized her answers, and when given the opportunity to do so, she changed most of her answer to a couple of the questions and returned the edited version to this researcher as requested (Appendix D).

The interesting thing about the participants having access to their responses in writing is that it gave them a chance to see the little imperfections we as humans have when communicating. Humans tend to be habit-forming creatures and do not always recognize it until we are face-to-face with reality. Participant LE0001-10312018 saw all her habits come to life repeatedly during the interview session and admitted in a couple of instances she felt she babbled extensively when trying to gather her thoughts. When this researcher recognized that this participant was at a loss for words, the interview session was steered back on track by expanding the conversation; thus, creating more ideas for the participant to explore. Whether an interview takes place through the means of a telephone session or a face-to-face collaboration, both methods often share the same outcome because verbal cues can be obtained in any setting. In a face-to-face interview

verbal cues are detected via facial expressions; and in a telephone interview session, the same cues can be detected via the participants tone and use of words.

The instrument used to collect data for this study consisted of semi-structured telephone interviews; whereby P4P questionnaires were sent prior to each participant's scheduled telephone interview. All telephone interviews were recorded using an application called "Tape Recorder." Every step of the way during the research and data collection phase, this researcher identified multiple avenues to secure and collect data from the selected participants. Therefore, in addition to using the Tape Recorder application, Microsoft Word's transcribing features was used as a backup; so, as the participants or this researcher was speaking, the Microsoft application was actively transcribing the conversation by both parties.

Although convenient, there were some disadvantages to using the Microsoft Word transcribing feature, as this application does not recognize the beginning or ending of a sentence. As such, it continued to type without inserting punctuation where needed or inserting the correct grammar, which resulted in numerous run-on sentences. Another disadvantage is that depending on the way the participants' verbalized their answer, sometimes the responses were not clear. Microsoft Word also picked up all the filler words we tend to use when searching for the appropriate words to complete sentences, which meant that in several instances the transcribed material Microsoft Word produced, could not be used.

Data Collection Adjustments

Semi-structured interviews conducted via telephone are a very interesting technique used to collect data. However, the burden lies on the side of the researcher to

construct and ask the right questions to keep the participants engaged. In preparation for the interviews, this researcher practiced the process with a couple of co-workers also pursuing doctorate degrees. While the telephone interviews are a unique instrument, they are certainly successful tools. When conducting the telephone interviews, it is about active and effective listening that helps a researcher identify when a participant is confused about an interview question or simply struggling to provide a thorough response just by the participant's tone used when responding.

Adjustments made during a data collection phase are not uncommon when conducting qualitative interviews, as it is certainly expected. Although this researcher held practice sessions with co-workers, the truth is that to have successful interview outcomes preparation must be included on both the researcher and the participant side. A participant will know when the researcher is not fully prepared. What is equally impressive is that the researcher can quickly identify when the participant has not prepared for the interview by the way the participant responds to the questions being asked. This researcher was able to determine which participant took the time to thoroughly read the interview questions prior to the scheduled telephone session versus those that did not get around to looking at the questions at all.

Adjustment 1 was made shortly after the initial interview with participant LE0001-10312018. Initially, an approximate forty-five minutes was allocated for the length of each interview. However, it was quickly determined that a full hour was needed to complete the telephone interview process for each participant. The extra 15 minutes added to each interview session proved to be the perfect adjustment because it seemed to be the average time needed to get through all the interview questions and answer

sessions. Adjustment 2 also involved participant LE0001-10312018. Due to unexpected time constraint issues forcing this participant to have to leave early, the interview session was broken into two components; which meant only half of the interview questions were successfully answered during the first session. Part two of the interview session was conducted the following week.

The interview with participant GG0002-11012018 gave this researcher an opportunity to gauge and identify adjustments that needed to be made with the remaining interviews. A couple of the participants wanted to talk freely in a conversational manner, and since participant GG0002-11012018 wanted to start her interview off with providing a little history about the study site, then this researcher felt it was necessary to allow her to proceed. The way this participant communicated during the interview demonstrated that she took the time to read all the interview questions thoroughly, which turned out to be the most prepared participant in the whole process. This researcher was able to transcribe and match every single response this participant provided to its corresponding question without any problems.

Adjustment 3 also involved participant GG0002-11012018, as the portion of the interview had to do with the technology component (questions 19 through 22), and these questions were excluded from the interview process. The reason behind this decision is that this participant’s role focused mainly on engaging with the stakeholders and health plans associated with the study site from an administrative perspective, not from the technological aspect of the program. Outside of using specific P4P related applications designed to abstract data for annual public reporting, not being involved with the technology component placed strict limitations on how detailed the expansion of the

conversation would be about merging technology with P4P programs. It only made logical sense to skip this portion of the interview guide with participant GG0002-11012018 because the study site has an entire information technology team dedicated to working with the implementation and maintenance side of the P4P implementation process, and the annual data abstraction and public reporting come from an entirely different department.

Adjustment 4 also involved participant GG0002-11012018, as question 7 had to do with designing a reporting mechanism to control the frequency of reporting. The objective of the question was to determine whether the P4P program warrants daily, weekly, bi-weekly, monthly, quarterly or perhaps annual reporting to be effective. Since the study site only produced annual public reporting results, it is the contracted physician organizations and health plans that control the frequency of their internal reporting systems. As such, using the results of the internal reporting to impact changes falls on the contracted facilities.

Adjustment 5 occurred with participant TN0003-11052018 for question 16, as the participant did not feel confident enough to answer the question surrounding benchmarking on the physician organization side. Therefore, the decision was made by both the participant and this researcher to skip this question. What this researcher found interesting is that out of two participants sharing the same job title, only one was comfortable enough to produce a response to this question. Participant TN0003-11052018 also did not feel comfortable answering question 22 because it pertained to the costs involved with implementing P4P programs produced by the study site. The participant stated she was not able to answer this question because the expenses involved

with implementing such programs were not part of her role with the study site organization.

Due to the direction of the conversation with participant TN0003-11052018, adjustment 6 was an additional question posed to the participant. The conversation was focused on how to motivate physician organizations in the Commercial HMO sector about P4P programs. This conversation resulted in this researcher asking how organizations like Leapfrog and Hospital Compare maintained informational websites that helped to encourage the onboarding of new physician organizations and using the study site's measure sets to improve their quality of care efforts. Participant TN0003-11052018 confirmed this was a realistic strategy that seemed to work because the study site's data was used to assign star rating information for physician organizations that patients accessed and made informed decisions on which facilities they selected.

Data Collection Findings

The main premise of conducting semi-structured interviews was to identify how much progress was made due to the Commercial HMO P4P program and how technology assisted in making sound logic-based decisions that provided a robust environment for patients to be treated. The data obtained from the semi-structured interviews showed some patterns and similar responses for many interview questions; meaning that the data collection method applied was efficient. The theme identified from the interview sessions consisted of quality improvement in the health provision, which was natured through the setting of the performance standards by the P4P programs for the clinicians and physician organizations. With the downstream goal of being able to support a P4P program, so much of the work must go into setting up that enabling infrastructure for collecting and

reporting standardized measures and getting industry agreements on the measure set, as this was listed as a key piece.

In terms of the other pieces, P4P it is not only about financial incentives because there are financial and non-financial incentives involved in programs. It was established that health plans paid incentives to their physician organizations. Regarding the non-financial incentives, there were public recognition awards presented to organizations that demonstrated high performance and improved group performance. The second piece was finding out that the study site shared the public reporting results with the Office of the Patient Advocate, as this data was used to produce public medical group report cards. The knowledge gained from sharing such results and receiving feedback from contracted clients helped to determine the amount or type of incentives.

When it comes to P4P programs there is so much focus on the dollars, which are intrinsic and extrinsic motivating factors that draw the necessary attention or persuade others to move in the direction of implementing P4P programs. In the study site's programs, health plans paid very substantial incentives based on performance in the form of some risk adjustments to premiums, as well as quality ratings that affected the premiums. So, the type and magnitude of those incentives ended up being quite substantial. Some health plans pass these incentives down to medical groups through a percentage premium kind of payment. As the plans make more money from The Centers for Medicare & Medicaid Services (CMS), they shared that with the groups, which is certainly a motivating P4P incentive that drew the attention of medical groups and health plans. The other big governmental piece would be things like myths for the incentives for the Medicare Fee-for-Service side and Medi-Cal. From experience in California on Medi-

Cal, those incentives tend to be varied regarding what the plans are paying the medical groups. There are some groups that are more likely to serve a disproportionate share of Medi-Cal members. If that is the case, the incentive program would have the biggest impact; depending on where a physician is practicing, the different types of programs have different influences.

One surprising fact revealed during the interview session with participant GG0002-11012018 is that October 2018 marked a significant milestone for the study site, as the name of the Value-Based P4P Program was changed and is now referred to as the P4P Program. The name change resulted from a renewed focus on what was initially core to the value-based program to aligned measurement, reporting and benchmarking, all of which now allowed for other aspects of the program; including the health plan incentives, to happen. The name change was also surprising for this researcher because it was not announced by participant LE0001-10312018 at all during the interview session; instead, it was revealed by participant GG0002-11012018. However, when looking back at the interview scripts, this may have occurred because it was participant GG0002-11012018 who came to the interview session the most prepared to discuss the program in full detail. What was mostly appreciated about participant GG0002-11012018 is that this individual compartmentalized the findings by taking us through how the study site established the P4P program in 2001. It was discovered that during the inception of the program healthcare industry leaders came together to ascertain the most common problem facing the study site physicians, as there were no contractually binding rules that measured the accountability within the industry. The physician organizations that ran the system

previously had different health plans arrangements for measuring and incentivizing physician organization performance.

Additional dialogue took place at the end of the interview session with participant TN0003-11052018 about physician organizations in need of advanced technology but lack the financial means to follow through with implementing such technology to improve quality care. This researcher extended the conversation by reflecting on the dissertation journey, the purpose for the study, and the importance of finding organizations that were in similar financial situations and lacked the proper funds to identify and implement technology to help improve their patient care efforts. One of the resolutions discussed had to do with organizations like McKesson Provider Technologies, Quadramed or Siemens; and the fact that these companies assisted physician practices or hospitals with not only identifying appropriate technology and customizing that technology to fit the organization’s needs but working with these physician organizations to implement the technology in phases. This strategy would result in technology and training implemented and conducted in a manner that would not impede the organization's progress of providing continuous quality patient care throughout the transition. One of the surprising facts that came out of this extended conversation is that companies like Quadramed and Siemens expanded their services and designed new measure sets to assist physician organizations with improving quality care.

Qualitative Data Coding Analysis

According to one of the interviewees, the P4P program at the study site was established in 2001 when healthcare industry leaders came together to identify a common problem, which was that there was no agreement on how to measure accountability

within the healthcare industry. Physician organizations and health plans arrangements for measuring and incentivizing physician organization performance varied widely. This resulted in an environment where there was a proliferation of different ways of measuring performance. For example, health plans A, B, and C used various performance measures and different measure specifications to gauge the performance of their contracted physician organizations. These organizations were contracted to provide care to their HMO members but struggled to find a consistent signal for performance information because they were being held accountable for vastly different measures across health plans. Not only was it difficult for folks to meaningfully target performance improvement activities, but the performance information received from their health plan partners was noisy and inconsistent across plans.

The name change was focused on measuring performance for primary care providers and primary care practices, which can also provide opportunities to do measure performance for specialty organizations as well as hospitals. The main objective for the organization is more specified with the name change in that it aligned performance of the health provision with standard rather than concretely segregating the services through value. The study site expanded the aligned measurement and reporting success developed over the last fifteen years into performance measurement program Medicare Advantage Commercial Accountable Care Organizations and Managed Medical. There were differences in the use of performance information for each of those programs because the population and structure of the relationships that individual programs measured had different needs and warranted different use of the data. What was discovered was that the value-based P4P program provided the foundation to expand beyond one program of

Commercial HMO in California, and four distinct programs that provided performance measurement and information for Commercial HMO, Commercial ACOs', Medicare Advantage, and Managed Care Organizations.

Coding qualitative data does not mean reducing it to numbers; rather it is a means of indexing your data. It proceeds based on linking diverse observation statements connected by common themes and patterns. The coding used in this study involved breaking down all data into units and grouping them together according to their characteristics like a filing system. While coding qualitative data, this researcher asked specific questions that explained what happened when technology and P4P measure sets were combined while cross-examining all the data systematically. Although coding was a bit time-consuming during this phase of the dissertation process, it paid dividends in the end.

The findings from the participants presented a clear indication that P4P programs over the years have achieved an impressive chunk of its initial goal of encouraging quality performance amongst those delivering clinical services. The objective of applying the Phenomenology of Practice Theory was also justified when incorporated into this study, as for most of the participant responses; there were only a few respondent similarities in the answers provided by the participants. Most of the participant responses were from their perspectives of what additional programs suited the already existing P4P program. The responses, although varied in the intensity or depth, can be attributed to the different professional alignment of the respondents in the P4P program.

The following Excel Qualitative Data Coding Analysis Spreadsheet (Appendix E) consists of data coding generated from the participant responses to specific questions.

Out of the 22 questions listed in the P4P Questionnaire, only 16 resulted in a common theme of repetitive answers given by the participants. Based on the participant responses this researcher identified five keywords periodically repeated throughout all recorded telephone interview sessions. These keywords were mapped using the navigation function in the transcribed interviews and based on the results; categories were created using color-coding methodology with the key words technology, patients, costs, the study site and Commercial HMO; all formed a specific pattern in the responses provided by each participant.

INTERVIEW QUESTIONS	Technology	Patients	Costs	SITE	Commercial
	CODE	LE0001	GG0002	TN0003	JW0004
How does merging technology with P4P produce positive patient outcomes? (Q-1)	TEC		TEC	TEC	TEC
What is the key motivator in their service delivery? (Q-2)	PAT		PAT	PAT	PAT
How else can the healthcare providers be motivated apart from the payment initiative? (Q-3)	COS		SITE		
Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern of service delivery? (Q-4)	IHA		COS		SITE
What are the parameters you use to measure excellent service offered by health care providers? (Q-5)	COM		COM		
Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance? (Q-6)				SITE	
Do you have plans to incorporate other ways of rewarding performance other than payment? (Q-8)		COS			
During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges? (Q-9)		COM			
Do you benchmark your organization? (Q-10)				COM	
What extent do you think the program benefits the patients too? (Q-14)			PAT	PAT	
Can you tell me if you experience best performers in service delivery? (Q-16)		SITE			
What form of rewards do you give to the best performers in your program? (Q-17)					COS
Are you aware of any step-by-step guide that provide instructions on how to implement P4P measures into existing programs that lead toward positive outcomes in improve quality of care for patients? (Q-18)		PAT			
What results do you expect when you incorporate technology into your existing program? (Q-20)				TEC	
What impact does technology have on patients that enjoy the services offered by their provider? (Q-21)		TEC		TEC	
What effects on the overall cost of a P4P programs can be expected when technology is merged with P4P? (Q-22)		TEC		COS	TEC

Figure 1. Excel Qualitative Data Coding Analysis Spreadsheet.

Step-by-Step Guide to Implement P4P Programs

There was a gap identified in the qualitative literature component concerning the need and availability of critical step-by-step instructions on how to successfully implement P4P programs into existing reporting structures. This gap in the study lead to the need for additional research because during the research phase, only one document was located that provided vague information of implementing P4P programs, but not detailed enough to help organizations. When question eighteen was presented to all the participants about identifying a step-by-step guide on how to successfully implement P4P programs into existing structures during their telephone interviews, it was confirmed that the existence of such instructional guides remained a mystery, as none of the participants were aware of where such critical information could be located. However, all participants were quick to inform this researcher that the study site published issue briefs that discussed program operations, the P4P program measure set, payment methodology, as well as how the incentives were designed. Again, this was general information that did not provide a clear breakdown of necessary steps to take to implement P4P programs.

Chapter 5: Summary, Conclusions, and Recommendations

Introduction

The purpose of the study was to gain a better understanding of how merging P4P with such technology as electronic health record reporting systems improved quality of care. The electronic health record reporting systems represent the meaningful use of technology and when such systems are used, it resulted in improved patient outcomes. The research partner chosen for this study was the study site. The participants for this study were selected based on their key positions within the organization: the same organization responsible for developing one of the largest and top P4P programs in California. The study was based on three research questions that resulted in a 22-questionnaire document distributed to all participants prior to recorded telephone interview sessions.

Interpretation of Data Collection

The summarized documents sent to the participants consisted of transcribed interviews sessions from four selected the study site staff members assigned to the value-based P4P team. The objective of color-coding these interviews was not only to find out the working environment of the study site staff but to understand how much progress the organization made ever since the induction of the commercial HMO program. The participants stressed how technological advancements had assisted physician organizations with making sound logic-based decisions to provide a robust environment for the patients to be treated.

The phenomenology of practice theory was applied to the study as a means of obtaining varying perspectives and opinions from the selected participants about the P4P

program the study site developed, and how merging the designed measure sets in this program with technology resulted in improved quality of care. At the completion of the qualitative, semistructured interviews and the knowledge gained from the interview sessions confirmed my theory that combining both components of P4P (preventive healthcare) initiatives with all aspects of technology helped physician organizations improve overall quality of care when benchmarking guidelines were followed. However, there continues to be insufficient qualitative literature providing step-by-step instructions on how to successfully implement P4P programs to improve quality of care and service administered to patients.

Patterns were identified in the participant responses and showcased in the Qualitative Data Coding Analysis Spreadsheet (Appendix E), whereby 16 out of the 22 interview questions revealed patterns in their responses during the recorded telephone interview sessions. The list of codes identified during the interviews consisted of key words such as technology, patients, costs, site, and commercial HMO. Each question showing a pattern was listed in the spreadsheet with the coordinating question identified from the P4P questionnaire in parenthesis. The key words also revealed the color-coding information used in the spreadsheet: (a) technology represented by green; (b) patients represented by blue; (c) costs identified by purple, site identified by orange, and Commercial HMO represented by the color red.

The Semistructured Interview Coding Graph (Appendix F) listed below was also generated and presented based on the word patterns listed in the Qualitative Data Coding Analysis Spreadsheet. The visual display of coded data in the graph placed emphasis on the patterns of words used by the participants. For example, the use of the word

technology was used eight times during a series of four questions answered by all participants. The word patients were used six times for four different questions, and the words the study site and costs both were used a total of four times for four unique questions. Finally, the words commercial HMO was used a total of four times but addressed only three specific questions related to performance in service delivery.

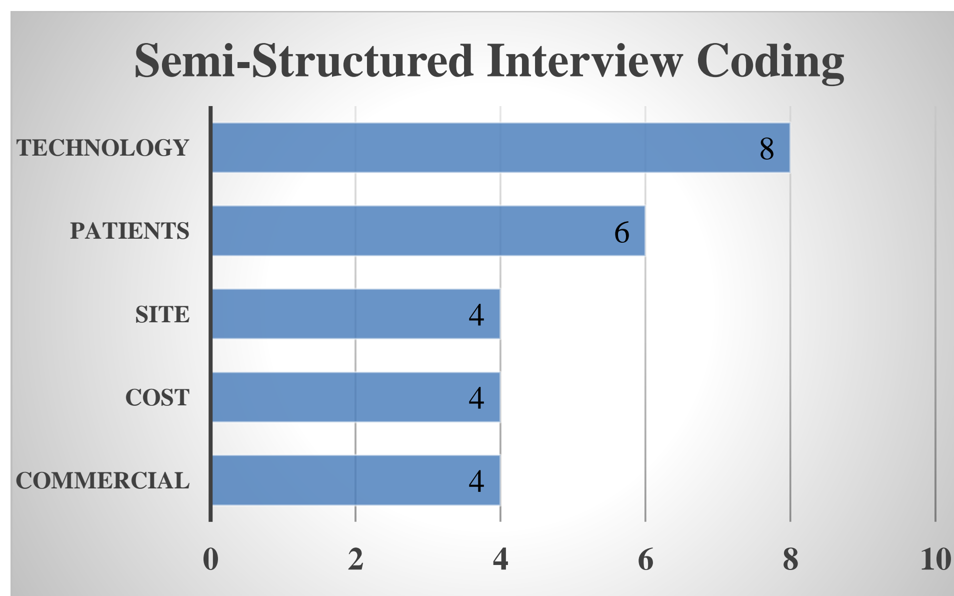

Figure 2. Semistructured Interview Coding Graph.

The interpretation of the Semistructured Interview Coding Graph also revealed that although the P4P program was designed to focus on the commercial lines of business, it was the technology component that stood out at the conclusion of the research findings and color-coding process. The commercial lines of business for the P4P Program were designed to focus on ambulatory care services rendered in the outpatient setting. However, the results displayed in the graph confirmed that the methodology and measure sets applied to design of the P4P program can be used in any line of business in the healthcare industry if the appropriate technology and benchmarking tools are in place to monitor patient care and track provider performance. For those physician organizations

that housed outpatient ambulatory services, as well as inpatient hospitalization services, this type of program would work when the right measure sets, and benchmarks are applied to hold physician organizations accountable.

Lessons Learned from Data Collection Efforts

According to the data, P4P programs geared towards quality achieved much of its goals through the process it provided for nonmonetary-based incentives to the health providing organizations. The physician organizations showed a high response rate when it came to top publicity, making each physician organization perform diligently. Therefore, the establishment of the tool of public recognition awards was a powerful nonmonetary tool P4P employed represented by high-performing physician organizations that achieved its objective of exceeding the benchmarks for the measure sets. The lessons learned from the data collection efforts proved how the value-based P4P program helped physician organizations and health plans provide the top-of-the line healthcare facilities with checks and balances for the physician organizations and enabled all participating entities to be a part of a performance measurement platform.

The program name changing in October 2018 was a revelation, as the new name now embraced other aspects of the program, such as health plan incentives, clinical quality, patient experience, use, and total cost of care. Although the name may have changed, the critical parts of the program remained the same, in that the study site still implements standard measure sets across participating physician organizations and health plans. The study site still maintains a standard incentive design that health plans can use to pay value-based incentives to their physician organizations. Furthermore, the study site still reports public information to the California Office of the Patient Advocate, in

addition to recognizing physician organizations that are high performing. The P4P Program developed for the Commercial HMO lines of business gave benchmarking back to the members, which represented about 95% of the HMO population in the State of California. All the study sites physician organization programs worked around benchmarking, which is a critical segment to their members.

It was learned that P4P Program has three committees that governed the program, such as the governance committee and two technical committees; one of which is the technical measurement committee and the other is the technical payment committee. From a technical perspective, it is the technical measurement committee that reviews measure sets annually to determine what measures are included in the measure set, or perhaps if there is an area that needs to be aligned, and if there are measures where organizations capped out. When participating physician organizations cap out on a specific measure it means that there are no more gains or improvement on these measures. This is where the three governing committees come together and determine if a measure should be retired. At this point the committees vote to retire them and add new measures that are either a big issue nationwide that shows improvement is needed.

SmartCare was introduced in the interview with participant JW0004-11062018, which is a public/private partnership co-chaired by three of California's largest purchasers who are focused on working to improve processes like C-Sections, opioid safety and low back pain care. Smart Care technically is not a performance measurement program like the P4P program; rather it was described as a multi-stakeholder collaborative that strategized and determined how to make a quality improvement. The semi-structured interviews revealed that Smart Care also influenced plans and consumers,

provided education through contracts and benefit designs, and influenced clinician behavior via information, data, and incentives.

It was also determined during this study how technology impacted social change, as technology merged with P4P programs (preventive health care) not only provided variations in incentives for the physician organizations through financial means and public reporting, but it improved the quality of health care provided to patients. Inpatient bed days via hospitalization were reduced when P4P programs were implemented and participating physician organizations observed better patient outcomes.

The study also revealed that merging technology with P4P programs improved patient safety by increased efficiency, improved quality of care and reduced costs. Participant TN0003-11052018 shared her experience of advanced technology in action as she discussed the benefits encountered with her medical office. Technology was used to screen patients, so physician organizations did not have to conduct additional outreach, as a large majority of the outreach is done in the medical facility while the patient is still there. Overall, the patients benefited from the improved quality and more affordable care associated with P4P Program participation. It increased patient satisfaction, as this is measured through surveys to see how satisfied patients are with their interactions, or access to care.

Another revelation that came out of the interview sessions is that the P4P Program is so streamlined and focused on improved quality of care, that the Department of Public Health expressed interest is seeking the study site's assistance with the use of their immunization data to aid in and approve their efforts for a project they are currently working on. It was also revealed that the Cancer Quality Committee also expressed

interest in working with the study site to incorporate cancer data, for instance, their cancer measures to leverage the study site's results.

Merging both components of technology and P4P has resulted in visible placement for physician organizations on regulatory websites such as Hospital Compare and Leapfrog. "Leapfrog Hospital Survey results are used to educate consumers and purchasers about the quality and safety of hospitals in their community so that they can choose the best hospital for their care" (The Leapfrog Group, n.d). Hospital Compare is a consumer-oriented website that provides information on how well hospitals provide recommended care to their patients. This information can be used to help consumers make informed decisions about where to go for health care (CMS.gov, 2016).

Many programs that leveraged a standardized or aligned measure set existed in the P4P Program, as the Commercial HMO, Commercial ACO, Medicare Advantage, and Medical Manage Care covered all entities. This consisted of the same measures across all product lines of all the programs. Understanding there are caveats, for instance, only certain measures can be measured by Medicare, or because the Medicare population can only be measured for specific measures.

An Explanation of the Measure Sets in Specific Domains

The telephone interview sessions exposed some vulnerability with one of the participant's knowledge or confidence with working directly with physician organization, as far as the breakdown of specific measures. In most instances, there are tiered related measures. Diabetes care is one of those measures; whereby it first involves patients getting screened for the medical condition. Diabetes care under the P4P Program includes

Optimal Diabetes Care, which is a combination of Hemoglobin (HbA1c) Control, Eye Examinations, Blood Pressure Control, and Medical Attention for Nephropathy.

When patients have a negative diagnosis screening, the only payment the participating physician organizations receive is for the testing itself. If patients are diagnosed with diabetes, the next step is administering a treatment plan to help patients maintain a blood pressure reading of <140/90 mm Hg., consistent eye examinations, hemoglobin (HbA1c) readings that fall in either one or two ranges: <8.0% for good control or >9.0% for poor control. Optimal diabetes care includes eye exams, a proportion of days covered by medication, such as oral diabetes, statin therapy and statin use in persons with diabetes.

The P4P Program not only focuses on the preventive health care component in the P4P program, as the program is broken down into approximately eleven different domains. The first domain includes behavioral health and substance abuse; cardiovascular care, diabetes, maternity, musculoskeletal, prevention and screening, respiratory, patient experience, advancing care information, appropriate resource use, and total cost of care. Under the behavioral health and substance abuse category, there is concurrent use of Opioids and Benezodiazepines, it is the initiation and engagement of alcohol and other drug dependence treatment and the use of Opioids at high doses that is also a part of this measure.

Colorectal cancer screening, which is associated with the prevention and screening domain, is also a complex category. This measure focuses on not just screening the patient, but helping practices boost their rates. Additional initiatives are needed for this measure, such as making outreach calls to patients and persuading them to make

appointments for their colorectal cancer screenings. A common theme in physician organizations is missed appointments by patients. It is one thing for patients to make appointments but getting them to show up for their appointments is another obstacle. A lot of the times missed doctor appointments are due to transportation issues. This is when it is critical for physician organizations to get creative with their initiatives to improve patient flow; particularly with the senior population.

Patient experience is another major component of the P4P Program because it addressed a composite of timely patient access to care through timely appointments and timely appointments for check-ups or routine care, provider communication composition, which consists of provider explanations to patients in a manner that is easily understood. Too often physicians offer explanations for medical conditions or treatment plans via medical terminology that is so complex it confuses patients. Coordination of care is the third element in the patient experience domain, as it focuses on physicians thoroughly demonstrating their knowledge about the patient's medical history and following-up with appropriate testing and treatment. The office staff represented the fourth component of patient experience because it focused on the medical staffs' customer service, and the final component is the overall rating of care composite, which addressed the overall rating of a specific physician and the care they provide.

Recommendations

The outcomes of the data collection efforts resulted in this researcher determining that additional research was needed to take place to continue searching for such critical information to help improve the quality of care in the healthcare industry. Further research could be expanded by the identification of identifying material that could

potentially enable this researcher to develop a published a step-by-step guide that will educate physician organizations on the proper steps to take to implement successful P4P programs. The expansion of the research can potentially lead to a series of well-developed white papers; whereby collaboration efforts with multiple potential research partners utilizing the P4P program designed by the study site.

Physician organizations who contemplated participating in P4P programs would have positive outcomes if they sought contracts with consulting firms to develop strategies that addressed challenges with participating physician organizations meeting benchmark requirements. Too often physician organizations failed to meet benchmark requirements because they focused entirely on just meeting the benchmarks themselves. This researcher recommends that physician organizations change benchmarking information internally in a manner that will guide staff working with P4P measure sets towards not just meeting new thresholds but exceeding them.

The P4P measure sets closely resembles the HEDIS measures. The Healthcare Effectiveness Data and Information Set (known as HEDIS), is one of the most widely used performance improvement tools to measure the quality of care. The P4P measures closely resemble the HEDIS measures; specifically, the preventive health screening measures. The Pay for performance measure set developed by the study site focuses on preventive health care screenings that have been abstracted from the HEDIS measure set, such as colorectal cancer screenings, breast cancer screenings, diabetes, etc. The benchmarks for each measure have been lowered in the P4P program to make them more attainable for participating physician organizations to meet over a specific data collection timeframe. Both HEDIS and P4P data is collected year-round; however, HEDIS measure

data is reported only twice per year. This means that participating organizations have only two windows of opportunity to improve preventive healthcare scores. While P4P measure data is also collected year-round the participating organizations, get to control the frequency of the reporting on an internal basis. While there are many options to choose when selecting the frequency of internal reporting, it is the monthly frequency of reporting that proved to be the best alternative. However, when participating organizations are working on improving a specific measure across all organizations, this would be the time to select possibly a weekly turnaround time for generating reports to closely monitor the organization's progress.

When organizations use P4P program data collection initiatives in conjunction with HEDIS data collection efforts methods, there is a much greater chance to improve HEDIS scores for at least one of two windows of opportunities. There are more than ninety measures associated with HEDIS that stretch across six different domains of care. These domains consist of Access or availability to care, the effectiveness of care, experience of care, health plan descriptive information, measures collected using electronic clinical data systems (EHRs) and utilization and risk-adjusted utilization. Risk adjustment is simply creating a level playing field for all physician organizations and providers based on criteria. Keeping track of the various domains in the P4P Program is only half the battle. It also involves being thoroughly knowledgeable about each measure set included in the various domains and having a clear understanding of the breakdown of each measure and how payment is assessed to each tier. It most certainly is not an understanding that can be obtained overnight; as it sometimes takes years to understand all the criteria outlined in the specification manual clearly.

Conclusion

The contents of this dissertation concentrated on the achievement that the P4P Program (formerly known as the Value-Based P4P Program) achieved over the fifteen years of its existence, as the development and implementation of the measure sets are used as a tool to gauge and measure the performance of quality care in the healthcare industry. Many programs can influence a standardized measure-set or aligned measure set, and these categorically exist in the P4P Program. At this point in the study site's operations, their program extends over into Commercial HMO program span to Medicare Advantage, Commercial ACO, Commercial HMO, and Medical Manage Care. It provided a leeway which consisted of the same measures across all services and of all the associated agendas to these programs. Understanding there are caveats, for instance, only certain measures can only be measured by Medicare, or because the Medicare population can only be measured for specific measures. Currently, the study site management is profusely trying to standardize the process of the entire HMO medical program, in the way they can incorporate into our current existing program that adheres to our standard in processes. These policies coherently make it a lot easier to streamline the process and improve the efforts so that changing policies can benefit the patients in these facilities.

Diversification and introduction of the new program to the already existing program is highly recommended in that with this the organization can stir through emerging issues in the health sectors. This can modify or realigning the old performance standards to capture new health provision trends in the future lest the program become obsolete. The program should also carry out data consolidation training for their clients

so that they get rid of the challenge it faces especially when collecting data. This will improve efficiency in the grading of the performance of the organizations.

Due to the direction the conversation wen during the recorded telephone interviews, an additional question was presented to the participants. One instance resulted in an additional asked about what happens when participating physician organizations are doing so well that they capo out of a measure. When a participating physician organization caps out of a measure, it means the organization reached a point in the P4P program where they have consistently maintained high performance throughout consecutive reporting periods for that specific measure, and there is no more room for improvement or incentives. When participating organizations have reached this point in the program, the three governing committees review the measure and decide whether to vote to retire the measure. However, new measures are then reviewed and added to the measure sets.

Although the P4P Program was designed for the Commercial HMO division of healthcare, the research proved that it could be applied to any healthcare line of business, if the appropriate technology, customized measure sets, and benchmarking components are in place to monitor the overall performance of participating organizations. Therefore, whether an organization chooses to participate in such P4P programs, they can easily follow the methodology in the P4P Program to ensure they have positive outcomes with improved quality care for their patients. The Semi-Structured Interview Coding Graph also demonstrated that while the P4P Program was designed for the Commercial sector, technology stood out amongst all keywords identified in the research. Even when the participants responded with multiple statements in their answers, again, technology was

one of the most prevalent words used. The results of the graph also proved that technology is the most dominant components when it comes to improved quality of care and service in the healthcare industry.

The theory of how merging technology with P4P was proven, in that the goals for the P4P Programs were achieved. The tool of public recognition and reward was a very fruitful tool for which the P4P stressed that in order to continue realizing its goal. Additionally, the health physician organizations are motivated, and any attempts to help them achieve their goals were met with a lot of positivity. When promoting quality improvement initiatives, and the P4P can be interpreted as a quality improvement initiative because it relies on providers and health plans using data-driven improvement, it helped to tie the initiatives back to improving health, which helped patients in the end.

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Appendix A: Approved Pay-for-Performance Questionnaire

Date: ______________________________
Participant Name: ______________________________
Participant Title: ______________________________
Phone Number: ______________________________
Email Address: ______________________________

INITIATIVES THAT DRIVE HEALTHCARE QUALITY

1. What significant P4P initiatives drive quality of health provisions?

2. In respect to the P4P program, it is evident that physicians have improved their services and how they deliver them to patients. What is the key motivator in their service delivery?

3. How else can the healthcare providers be motivated apart from the payment

initiative?

4. Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern their service delivery?

5. What are the parameters you use to measure excellent service offered by health care providers?

6. This plan motivates the health caregivers, and they seem to give impressive results. Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance?

7. In your course of the evaluation, what is the interval at which you do performance appraisals? Per day; week? What period do you consider reasonable?

8. I understand this program has been running for a while now. Do you have plans to incorporate other ways of rewarding performance other than payment?

9. During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges?

10. Benchmarking is a tool used to measure performance in most organizations. Do you benchmark your organization?

ADDITIONAL PROGRAMS TO BE MERGED WITH EXISTING P4P PROGRAMS

11. What additional programs can be integrated into existing P4P programs?

12. Your program has worked well over the years and has served its intended purpose. Do you feel it is necessary to incorporate other programs?

13. What expectations do you have when additional programs are incorporated into your system?

14. P4P has motivated health care providers to deliver quality services to patients. What extent do you think the program benefits the patients too?

15. Benchmarking and exchange programs help a lot in the improvement of any organization. As such, what arrangements have been made to ensure that health caregivers experience service delivery outside their work environment?

16. Normally, rewards are given to the best performers in most institutions. Can you tell me if you experience best performers in service delivery?

17. What form of rewards do you give to the best performers in your program?

18. During this study, it was discovered that there is limited literature discussing step-by-step instructions on how to successfully implement pay-for-performance programs into an existing structure. Can you provide some insight on where such critical information can be found?

MERGING P4P WITH TECHNOLOGY OUTCOMES

19. How does merging technology with P4P produce positive patient outcomes?

20. Technology changes daily and new trends come up. What results do you expect when you incorporate technology into your existing program?

21. From your perspective, what impact does technology have on patients that enjoy the services offered by their provider?

22. The aim of any organization is to ensure that costs are controlled. What do the effects on the overall cost of a P4P program can be expected when technology is merged with P4P?

Appendix B: Approved Participant Responses

Participant ID: 001

Can you please describe what your role is with working with the Value-Based P4P program for the study site?

I work specifically for the P4P Programs. These programs were formerly known as the Value-Based P4P Programs, as well as some additional measurement and benchmarking programs. We provide organizational level measurements that I have been overseeing the measurement process for probably the last four years now.

INITIATIVES THAT DRIVE HEALTHCARE QUALITY

1. What significant P4P initiatives drive quality of health provisions?

RESPONSE: What does the study site do to drive improved quality of health care is standard measurement and benchmarking. This critical work is a prerequisite for and ultimately enables the P4P initiative. What is important is that while the downstream goal is to be able to support a P4P program, so much of the work is setting up that enabling infrastructure for collecting and reporting standardized measures and getting to industry agreements on a common measure set. Regarding the other parts, it is not just about the financial incentives. As we work through the program, there are financial and non-financial incentives. In addition, to being of great value that health plans participate in our commercial HMO measurements, health plans pay incentives to their physician organizations. We also have non-financial incentives, such as public recognition awards presented to organizations that demonstrate high performance and improved group performance.

The second piece is sharing the public results with the Office of the Patient Advocate, so they can produce a public medical group report card using the same data. The knowledge gained from sharing results and receiving feedback from contracted clients helps to determine the amount or type of incentives. I think a lot of the times, with the P4P programs, there is so much focus on the dollars, which are intrinsic and extrinsic motivating factors that can work to gets folks attention or persuade others to move in the direction of implementing P4P programs.

Outside of the study site’s work, another influential incentive in the industry is the Medicare Advantage Stars Program. In this program, CMS pays health plans very substance incentives based on performance in the form of some risk adjustments to premiums, as well as quality ratings that affect the premiums. The magnitude of those incentives ends up being quite substantial. Some health plans pass these incentives down to medical groups through a percentage premium kind of payment. So, as the health plans are making more money from CMS, they share that with the groups,

which is certainly a motivating P4P incentive that has the attention of both medical groups and health plans.

The other major governmental incentive includes Medicare Fee-for-Service, such as MIPS, and Medi-Cal. From my knowledge of California on Medi-Cal, I would have to say that these incentives tend to vary by health plan regarding what the medical groups are incentivized. There are a couple of Medi-Cal managed care plans that have done a lot of work in this area and are known for their incentives—specifically, Partnership Health Plan and LA Care come to mind. There are some differences between the populations of different physician organizations. Some serve primarily commercial or Medi-Cal members. As a result, the incentive program that is going to have the most significant financial impact for any given physician organization varies based on the characteristics of the organization.

2. In respect to the P4P program, it is evident that physicians have improved their services and how they deliver them to patients. What is the key motivator in their service delivery?

RESPONSE: It is interesting! I feel like the motivators vary by medical group and person. We surveyed program participants a few years back about the different program elements to find out what was working and what was most important to stakeholders. Throughout time, we have consistently seen that just different folks with an organization that helps to motivate like that different pieces speak to different people. Some participants say that incentives—the dollars--are not that important. Some say the incentives do matter to get the people around the table or offset and cover the cost of doing the additional quality improvement work. Some participants say they are motivated because it is the right thing to do, so simply creating a focal point and shedding some light on the issues is all it takes. Given the varied participant perspectives I've heard, I get the sense that the motivation differs across participants.

3. How else can the healthcare providers be motivated apart from the payment initiative?

RESPONSE: I think some of the things we talked about already like awards and recognition as well as the definition itself can be motivating. There are a lot of folks who generally want to have their organizations reflected in a good light; have their reputation and performance reflected in a good light. Additionally, I think there are strong intrinsic motivations that drive doctors and care providers to want to deliver high-quality care. Several articles talk about how intrinsic versus extrinsic motivation, like what is internal to a participant versus those external nudges. There is a lot of emphases placed on doing the right thing. So, in addition to the investments and incentives that support the development of information development, simply equipping participants with information that they can believe in goes a long way.

During the annual stakeholders meeting the study site, one session focuses on case studies from different physician organizations with the highest levels of performance. One of the things we hear frequently is how vital it is to provide feedback directly to the providers. It does not have to come with money; sometimes it is just the information or framing the information in the right context; not in a way that it feels punitive or penalizing. A common theme is how important leadership is in driving the commitment and emphasis on quality improvement. Being in a position where that commitment comes first and foremost sets the organizational tone. The other feature that many high-performing organizations have noted is the sharing of transparency reports back to their providers to give doctors a sense of their performance and how that compares with others within their organizations. Some of the organizations go a step further and bring in teams that can work with individual practices or doctors to look at the data and figure out what they want to work on and see about areas where they are interested in improving within their practice, which helps to drive those improvement initiatives.

4. Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern their service delivery?

   RESPONSE: One clarification: we track all performance at the physician organization level, not individual physicians. Any monitoring of individual physician performance is done directly by the physician organization.

   While we monitor annual performance, a full-scale evaluation focused on causation hasn't been part of the program's scope. We make results available on our website annual basis that show highlights from the recent year's performance. Consistently, on a yearly basis we see incremental improvements in the measures, and when we track those over a specific timeframe, we can see every single measure we have for five years that is trended and that substantial improvements that have been sustained through the program. There are a lot of different factors that physician organizations are exposed to simultaneously; both within the program (P4P incentives, awards, and report card) and outside of the program. Since these incentives do not exist in a vacuum, attributing the cause of the performance improvement that we have seen to any specific program or attribute is challenging. It is a bit more descriptive than causal, but back in 2009 RAND did a study looking into at the response of participating physician organizations to the program's implementation.

5. What are the parameters you use to measure excellent service offered by health care providers?

   RESPONSE: For P4P, we have three governing committees for the program that oversees all the work we do that is stakeholder lead. We have health plans, and physician organizations and instead of kind of at-large members that help inform and advise the work we do. One of their responsibilities is to help us identify the

program's strategic priorities and selected performance metrics. Clinical quality (or effectiveness of care), patient experience, and a systems infrastructure domain, which has evolved many times over the program's life, have all been part of the program since the very beginning. So, the measures within each of those changed and have evolved. The study site is working toward more impactful measures, such as outcomes or patient-reported outcomes, and working to ensure the selected metrics are reflective of stakeholder and patient priorities. All selected metrics are tested and thoroughly vetted—not just by the committees that guide the metric selection, but also through an annual public commentary on the measure set and the draft specifications so that we have stakeholder input on what we measure.

An issue that emerged early in the program (around 2005 and 2006) was that costs in healthcare were getting to unsustainable levels. Employers and purchasers were facing double-digit levels of increases year after year. As a result, the committees added the total cost of care to the selected performance metrics. So, you must think about combined quality and cost, or value performance. Towards this end, the study site added complementary resource use measures and cost measures. The first is much more focused on precisely on utilization metrics; the second is around combined utilization and price, which gets at affordability. Some organizations may have control over the negotiated price is for their services, but everybody can potentially influence utilization through effective and coordinated care.

6. This plan motivates the health caregivers, and they seem to give impressive results. Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance?

RESPONSE: I am not sure if I can speak eloquently about this, but I can say two things. In the way that we look at performance right now, some of those types of considerations can get brought up in the patient experience survey. The patient experience survey is the clinician and group CAHPS Survey, which stands for Consumer Assessment of Health Plan Performance Survey. This survey has questions about communication, overall doctor rating, office staff, as well as access to care. I think that those surveys are one opportunity to monitor this service to ensure physician organizations and health plans are complying with patient expectations.

When it comes to aligning with the standard incentive design for the program, each health plan is responsible for administering its performance incentive program. The study site's role is to equip both the plans and the physician organizations with aggregated results that are reported back out to participants in a consolidated report. We support the implementation of standard measures, share and report the results. We even provide a standardized incentive design that, but each plan administers its own. The health plan defines a lot of contractual requirements around the incentive. The main thing we require to participate in the standard measurement is that each organization has the appropriate participation agreement in place. There is a set of

health plan agreements and a physician organization consent agreement that the study site requires

7. In your course of the evaluation, what is the interval at which you do performance appraisals? Per day; week? What period do you consider reasonable?

RESPONSE: There is a big distinction in the quality measurement frequency required for quality improvement purposes versus performance reporting purposes. This distinction is important because when you are working on quality improvement, you need a lot of very timely data points, so you can iterate quickly and find out what is working versus what is not working. For our purposes, reporting is done annually. This aligns with the level of effort required to support the rigorous data collection, validation, and reporting. Specifically, to support audited results, we must have clearly defined specifications that are up-to-date with all the right value sets and have gone through their rigorous process. It lines up with how frequently the Office of the Patient Advocate updates their report card. All those reasons align with the study site measurement and reporting on an annual basis. That said, most of the physician organizations whose performance for the program excels are leveraging internal systems it much more frequently. Going forward, some opportunities potentially provide more timely and meaningful data sharing between health plans and physicians organizations.

8. I understand this program has been running for a while now. Do you have plans to incorporate other ways of rewarding performance other than payment?

RESPONSE: Awards and public reporting are key areas that continue to be important components, as they continue to evolve as the program evolves. Consistent with the program's move to value, the awards and OPA Report card now incorporate the total costs of care.

One of the opportunities for expanding of the non-financial incentives is to increase the relevance of the report card, and awards are to increase the relevance to patient decision-making. One of the challenges of public reporting is the lack of individual doctor ratings and quality information on specific individual condition priorities. Often these ratings are not always reliable enough to measure individual or physician performance. I think one of the questions must be how you can help bring that information back and leverage some of the existing programs to meet patient needs.

9. During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges?

RESPONSE: One of the things that continue to be a real challenge is data; especially in healthcare. Whenever you are looking at the type of data we have, you are abstracting information from what is a very complex and nuanced process—for any patient in a specific situation there is a lot happening. Beyond the complexity, the

information is dispersed across a lot of different parties that may or may not be affiliated, so it is necessary to try to get that information exchanged to support complete and accurate data. So, data is one of the challenges. While we do not want to make data collection a burden, if you do not try to collect and use the data, it is not going to improve. With every reporting cycle we run into new issues that health plans or physician organizations are running into whether it is challenged in their data, vendors that have transitioned, or infrastructures that are getting updated.

Secondly, standardization is hard, in that I think it takes a lot of continued effort and works; especially as contracting evolves. There is a lot more overlap in the providers serving Medicaid and Commercial populations. With each additional payer and product, you have providers exposed to different incentives with different requirements to the extent that different health care industry partners can work together to align requests and requirements and streamline them and avoid unnecessary tinkering and variations. As payers and plans create one-off programs, the effect can be to drive provider organizations and clinicians crazy because they look almost the same. If you are looking at a measure that sounds very similar, you think it is the same thing, but there can be small and often inconsequential differences that mean somebody is spending time programming a second version of the same measure. This may not be the best use of resources.

The last thing to focus on is how information is translated. We know that every time you take what is like HEDIS measure to a clinician, there is a challenge with something that is meant to be a population health measure, and then you have all the nuances of the clinical guidelines. We spend a lot of time having to go through, and rightly so, making sure that guidelines are consistent. We get a lot of feedback annually during our public comment period, through our policy clarification system that rallies around how the specifications relate to the guidelines, how the specifications are just defined, and what is in the value set. All these components are important aspects of the process, but also one that can be challenging because it takes a lot of time and effort. The importance of a clinician being able to get an answer to understand why specifications are structured a certain way or why a program policy makes sense is something we value. We want to be responsible and respectful of physician engagement, so we have contracts with for technical assistance and prioritize this work.

10. Benchmarking is a tool used to measure performance in most organizations. Do you benchmark your organization?

RESPONSE: Yes – we set our performance objectives for our organization annually. Since we don't deliver care, our organizations' goals and objectives look very different from our benchmarking efforts for physician organizations.

Regarding our work to support benchmarking for participating physician organizations and health plans, we share back with each organization their results on

all the measures. We not only share their results with them, as well as the target used for scoring, but we share with them the full statewide performance distribution to enable them to see every measure; how all the organizations across the State perform; what all the percentile averages are for the measures, so they can put their performance in that broader context.

In addition to that kind of benchmarking they also get to see a report that shows a summary of quality and patient experience in costs at the regional level as well, which means they get to see how other peer organizations are delivering care. For example, within the Inland Empire, they can see on a blinded basis the performance of all the other organizations. The work we do is to take performance information that we know who is participating in our programs and put that in the broader context of healthcare performance more broadly.

ADDITIONAL PROGRAMS TO BE MERGED WITH EXISTING P4P PROGRAMS

11. ADDITIONAL QUESTION ADJUSTMENT: Are you aware of any step-by-step guide that provides instructions on how to implement P4P measures into existing programs that lead toward positive outcomes to improve the quality of care for patients?

RESPONSE: There are organizations—consultants, vendors IHI, PTI—that aid and guidance on how to tackle quality improvement and several organizations who think of how they can start reporting, as well as the different technologies, services, and products they offer to target quality improvement, quality reporting specific to P4P programs. We maintain a list of certified vendors that offer technologies and services focused on supporting performance reporting and enabling gap reporting at the organizations. Success with P4P programs ends up coming down to, first and foremost, an organization's leadership and commitment to identifying and implements the necessary processes, infrastructure, and technologies. Once you have that commitment, determining the approach that will fit best with a given organization, culture, and process. There isn't a one-size-fits-all solution. The study site has seen organizations that have not used a vendor, instead of relying on in-house technology or processes, be very successful because it aligns with their organizations' culture and skills.

There are different approaches taken for organizations, for example, independent practice associations, where you have a much more Federated system of clinicians and doctors than a medical group, and where you can kind of figure out exactly what the system is going to look like and how it is going to be implemented. I think one of the challenges of building that kind of step-by-step guide is that it might differ for different organizations, which is where leadership commitment and focus on quality and quality improvement is important.

12. What additional programs can be integrated into existing P4P programs?

RESPONSE: For the most part P4P programs—whether the study site, MIPS, Medicare Advantage Stars, individual health plans—should be integrated and aligned with physician organizations' broader quality strategy.

13. Your program has worked well over the years and has served its intended purpose. Do you feel it is necessary to incorporate other programs?

RESPONSE: Healthcare payment and delivery is highly fragmented, so until it is more coordinate there will inevitably be different programs to coordinate and reconcile. Therefore, discussions of alignment and standardization are so critical.

14. What expectations do you have when additional programs are incorporated into your system?

RESPONSE: When physician organizations are participating in a performance measurement program, we expect that they will participate across our performance measurement efforts across the different lines of business-like Medicare Advantage or Medi-Cal Managed Care. Broad participation helps support complete and robust data.

15. P4P has motivated health care providers to deliver quality services to patients. What extent do you think the program benefits the patients too?

RESPONSE: While it is not directly, or immediate program target the goal of all the work we do for P4P through the performance measurement and public reporting and the incentives, we are structuring, the end goal is improving patient care. The energy and investment by the industry to improve the quality measures leads to better care for patients. Part of the rigorous process for selecting quality measures includes the anticipated impact and importance for patients. As a result, and by design, getting the physician organizations across California to focus on how they can improve performance on those measures and providing credit for improving on the measure is intended to benefit patients. More immediately and directly, the program provides patients publicly with information about how different physician organizations perform so that they can make informed decisions about where to receive care. You cannot have a well-functioning market or economy or health care system if you do not have good information. We would like to see patients referencing and relying on the Office of the Patient Advocate Report Cards increase.

16. Benchmarking and exchange programs help a lot in the improvement of any organization. As such, what arrangements have been made to ensure that health caregivers experience service delivery outside their work environment?

RESPONSE: Question skipped because the participant was not sure how to answer the question.

17. Normally, rewards are given to the best performers in most institutions. Can you tell me if you experience best performers in service delivery?

RESPONSE: I have worked closely with the study site physician organization recognition awards during my six years with the study site. The two things I take away from the recognition awards. First is how important it is to be grateful and recognize the hard work it takes. I think that when you are trying to do performance improvement, especially in healthcare, it is kind of goes with the assumption that everybody is trying to deliver high-quality care; so, it is easy to overlook. I think that taking the time to reinforce that there is a high bar and there are organizations that met that high bar does a lot. The study site holds an annual award ceremony at stakeholders' meetings is where the study site recognizes those organizations in front of their peers. Recognizing a job well done is a valuable motivator. A lot of teams make an incredible effort throughout the year to improve their care performance.

Second, I feel about the recognition is that there is a lot of focus on being at the top of the bell curve. With all our work, we focus on both those who are at the top of that bell curve, but also those groups who are making the greatest gains or accelerating improvement. We have awards both for what we call "attainment", which represents the highest performers. We also have recognition for those organizations that have made rigorous gains over the last year.

18. What form of rewards do you give to the best performers in your program?

RESPONSE: The awards are one of the key non-financial awards we provide, and we've already touched on. We try to amplify the impact of the awards a few different ways. Earlier I talked about the luncheon where we recognize groups in front of their peers as being that kind of a luncheon award ceremony. In addition to that, we publish this list on our website and share the list with the Office of the Patient Advocate. For the Excellence in Healthcare Award, the Office of the Patient Advocate will put a special icon next to the group names on the report card to draw attention to those groups being recognized. We also make sure that the groups have the award logos and share with their marketing departments to further communicate their achievement. So, want to enable that and reinforce the value of their achievement.

19. During this study, it was discovered that there is limited literature discussing step-by-step instructions on how to successfully implement pay-for-performance programs into an existing structure. Can you provide some insight on where such critical information can be found?

RESPONSE: There are more resources for implementing quality improvement efforts than implementing a P4P program, but there are overlap and synergy. A lot of the same change management, lean, and continuous process improvement principle apply. Some of the organizations that have done the most around healthcare

improvement would be good sources. In California specifically, the California Quality Collaborative is one organization, as well as Practice Transformation work that has been one of those CMMI demonstrations and grants of trying to see how different practices can go about trying to develop the infrastructures to support quality improvement within P4P type programs and ultimately be successful.

The discussion gets more challenging if you are trying to focus more specifically on structuring the incentive or a risk-based contract. This type of information and assistance is much more likely to come from consulting firms and proprietary sources. The Catalyst for Payment Reform or NAACOs is two organizations that may offer some resources on this point.

MERGING P4P WITH TECHNOLOGY OUTCOMES

20. How does merging technology with P4P produce positive patient outcomes?

RESPONSE: Technology is important at two angles. First and foremost, it plays an enabling function. It is the foundation that helps to report the data. To track performance is impossible without technology; you must have a view of what is happening with your patient population. Second, once you have the right data platform, you can think about how to improve performance differently. It allows you to kind of empower the organizations to be more proactive about the types of outreach efforts they want to implement.

21. Technology changes daily and new trends come up. What results do you expect when you incorporate technology into your existing program?

RESPONSE: It depends. Technology helps with understanding the characteristics of care and the problems from a population or geographic perspective. Without outreach or intervention though there is no result. There are a lot of different approaches organizations have leveraged to drive results. For example, sending automated reminders out to patients who have not received a specific screening is one of the expected outcomes have been effective. Others have provided an analytics team to help clinicians dig into the data and create their own performance measurement goals and programs.

22. From your perspective, what impact does technology have on patients that enjoy the services offered by their provider?

RESPONSE: On the right side, I think technology helps to make sure the patient gets all the services, and it helps to make sure that information relevant to a patient's medical history is not buried and lost. For example, technology can help doctors quickly identify which patients are current with their immunizations, or if they are missing a specific screening, and that data can be transferred a lot easier. When data

can be exchanged easier and can be shared more readily, it helps to prevent a lot of adverse reactions and events.

On the wrong side, and this is something where I think technology will advance and evolve, but for the time being, technology can detract from physician-patient engagement. Until the technology becomes more intuitive from the physician's perspective, it can become a focal point of a visit. Doctors can be busier looking at the interface, portal, or EMR, as opposed to being able to fully listen to the patients and give them their whole and complete attention. This is an area I hope will improve with future technology enhancements

23. The aim of any organization is to ensure that costs are controlled. What do the effects on the overall cost of a P4P program can be expected when technology is merged with P4P?

RESPONSE: Good question! With the right technology and organizational commitment, technology offers the opportunity to optimize health care resources and potentially save costs. This depends though on how organizations think about their budgets and how they leverage and develop their technology investments. Ultimately, I do not feel like the type of technology solutions that support something like P4P are just about P4P. In some organizations, the lowest sense of how to think about the investment are isolated to the P4P program—basically: "the P4P incentives I am getting paid by the plan should cover the cost of the technology." Ultimately the right technology should be an investment required for effective population health management. In this case, limiting the cost comparison within just the P4P program may not be entirely accurate. Ultimately too, I think it comes back to how the P4P program itself is structured.

The expansion of P4P programs under other payers is also helping drive the ROI for technology. Medicare Advantage has a good chunk of the premium driven by quality performance. Medi-Cal plans are increasingly doing P4P programs. Commercial payors are exploring more ACO and shared savings programs. The combination of these incentive programs along with the goal of delivering high-quality care to patients, the technology component deserves special consideration in how it is prioritized and valued as an investment.

Participant ID: 002

Can you please describe what your role is with working with the Value-Based P4P program for the study site?

RESPONSE: have been at the study site for about four years, and in that time, and have worked primarily with our physician organization performance measurement programs, which include what was formerly known as the Value-Based P4P Program and is now called the P4P Commercial HMO Program. As a note, the Value-Based P4P Program name recently changed and is now referred to as the P4P, Commercial HMO Program. While the name may have changed; the critical parts of the program remain the same. The study site is still implementing a standard measure set across participating physician organizations and health plans. The study site is still maintaining a standard incentive design that health plans can use to pay value-based incentives to their physician organizations and is still reporting public information to the California Office of the Patient Advocate, in addition to recognizing physician organizations who are high performing. The name changed stemmed from a renewed focus on was core to the program: aligned measurement, reporting and benchmarking, which allows for the other aspects of the program, including the health plan incentives, to happen.

In my role here at the study site with these programs, I was an internal Project Coordinator and an internal lead on the measurement operations, which is foundational to all the performance measurement work we do in the P4P programs. One of the things that I highlighted in some of the background material I shared with you earlier was that these programs are truly unique, in that they are stakeholder-led, and stakeholder governed, and participation in these programs is entirely voluntary. In my new role as Stakeholder Engagement Manager, my focus is on continuing to engage our participants and stakeholders to do this work with us.

INITIATIVES THAT DRIVE HEALTHCARE QUALITY

1. What significant P4P initiatives drive quality of health provisions?

RESPONSE: I will start by giving a little historical perspective into where we are today. The P4P program at the study site was established in 2001 when healthcare industry leaders came together to identify a common problem: there was no agreement on how to measure accountability within the industry. Physician organizations and health plans arrangements for measuring and incentivizing physician organization performance varied widely. This resulted in an environment where there was a proliferation of different ways of measuring performance. For example, health plans A, B, and C were using various performance measures and different measure specifications to gauge the performance of their contracted physician organizations. Physician organizations who were contracted to provide care to their HMO members were struggling to find a consistent signal for performance information because they were being held accountable for vastly different measures

across health plans. Not only was it difficult for folks to meaningfully target performance improvement activity, but the performance information they were receiving from their health plan partners was noisy and inconsistent across plans.

2. In respect to the P4P program, it is evident that physicians have improved their services and how they deliver them to patients. What is the key motivator in their service delivery?

RESPONSE: Generally, stakeholders have indicated that they are motivated to improve quality and engage in the transition towards value to stay competitive within the industry. The study site serves as a neutral convener for the health care industry in California, as it brought physician organizations and health plan partners together to say we can solve this problem together. The way the study site chose to solve the accountability problem was to create a performance measurement program that would do a couple of key things:

A. First, it would align the performance measures that health plans and physician organizations were using; so, everyone was using the same measures to gauge performance. This was an important first step because not only did it reduce the burden of all these different measures that were floating around the landscape, but the study site was able to collect data across physician organizations and health plans for a single set of performance measures and then aggregate that data at the physician organization level. This provided physician organizations with not only their performance information by the measure for each of their contracted health plans but also aggregated across their health plans. This reduced a lot of the noise they saw at the plan level.

B. Second, common measurement, reporting of aggregated performance results, and bench-marking allowed for performance information to be used in a couple of very important ways: enables health plans to pay their physicians organization a financial incentive; supports public reporting of physician organization level of performance information through a public report card that was intended to support consumers in making informed decisions about their care; and public recognition awards for high performing physician organizations.

3. How else can the healthcare providers be motivated apart from the payment initiative?

RESPONSE: With regards to the study site’s P4P Commercial HMO program, participants have indicated that the primary motivators for engagement in the program are both financial and non-financial: aligned measurement and benchmarking, a consistent process for data collection and improved processes for data sharing, financial incentives paid by the health plans, public reporting and public recognition awards. A collaborative forum focused on enabling performance improvement is critical.

4. Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern their service delivery?

RESPONSE: Workflow is the purview of the physician organizations, but the study site analysis of performance over time suggests marked improvements in quality in key areas such as diabetes care as well as moderated cost trends.

5. What are the parameters you use to measure excellent service offered by health care providers?

RESPONSE: The P4P Commercial HMO measure set is developed and maintained annually by a set of stakeholders led committees, as well as by participant feedback during an annual public comment process. The measure set is adopted in full by participating health plans for use in measuring accountability for contracted physician organizations, and the measure set includes measures of clinical quality, patient experience, resource use, and total cost of care. The study site defines excellence in terms of value - for example, physician organizations recognized at "Excellence in Healthcare" award winners are physician organizations who simultaneously perform in the top 50% of overall quality and patient experience and the bottom 50% of total cost of care, demonstrating value through high quality, patient-centered care that effectively moderates cost.

6. This plan motivates the health caregivers, and they seem to give impressive results. Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance?

RESPONSE: There are no ethical issues encountered.

7. In your course of the evaluation, what is the interval at which you do performance appraisals? Per day; week? What period do you consider reasonable?

RESPONSE: The study site reports annual results with public reporting; however, the contracted physician organizations control the frequency of their reporting system.

8. I understand this program has been running for a while now. Do you have plans to incorporate other ways of rewarding performance other than payment?

RESPONSE: Non-financial incentives have been part of the P4P Commercial HMO program for as long as it has been in existence. The study site has recognized performance through public reporting of performance information and public recognition awards in addition to incentives paid by health plans.

9. During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges?

RESPONSE: There are no challenges encountered.

10. Benchmarking is a tool used to measure performance in most organizations. Do you benchmark your organization?

RESPONSE: Yes, benchmarks are a critical component of the P4P Commercial HMO program. All the study site's physician organization performance measurement programs, or P4P programs, are built on a standard measure set that is implemented across participants for collecting and reporting performance information and benchmarks to participants. We do this by collecting performance information on a standard set of measures across all participating health plans and physician organizations. That data is aggregated at the physician organization level to reduce the noise of individual plan results, and population benchmarks are calculated by measure to provide participants with important context for understanding their performance.

ADDITIONAL PROGRAMS TO BE MERGED WITH EXISTING P4P PROGRAMS

11. What additional programs can be integrated into existing P4P programs?

RESPONSE: In 2003, which is the first-year of measurement for the program, the incentive component was a very traditional pay-for-performance model where physician organizations whose aggregated performance met or exceeded a certain benchmark or threshold would earn incentive dollars from their contracted health plans. This was the model for the incentive component of the program for several years. As the market shifted towards value, the study site incorporated new measures into the common measure set which focused on measuring utilization for resources like the emergency department, generic prescribing of medications, and in-patient bed days because we know that those are not only drivers of costs, but of indicators of overall efficiency in providing high-quality care. Additionally, we began measuring the total cost of care to capture all aspects of value in our measurement – clinical quality, patient experience, and cost. That allowed the study site to transition from a traditional pay for performance program to one that included a value-based incentive, as well as public reporting, physician organization recognition awards, and aggregated performance reporting/benchmarks.

12. Your program has worked well over the years and has served its intended purpose. Do you feel it is necessary to incorporate other programs?

RESPONSE: In the last year, the study site has expanded the aligned measurement and reporting success that has been developed and built over the last fifteen years of administering the P4P Commercial HMO program and expanded it into performance measurement P4P by line of business, including P4P Medicare Advantage, P4P Commercial ACO, and P4P Medi-Cal Managed Care. There are differences in the use

of performance information each of those programs because the population and the structure of the relationships that the individual programs are measuring had different needs and warranted different use of the data, but all rely on a common set of measures collected and reported by the study site on behalf of participants.

13. What expectations do you have when additional programs are incorporated into your system?

RESPONSE: The addition of the new measures to the common measure set, the study site's P4P program now measured clinical quality, patient experience, utilization and total cost of care; to provide physician organizations and health plan participants a comprehensive understanding of all part of the value equation. Once those new measures were in place, the study site was able to work with one of the stakeholder's committees (technical team committee) to revisit the traditional pay-for-performance incentive design and shift that pay-for-performance incentive to what we then called the value-based pay-for-performance incentive design. The value-based pay-for-performance design at its core is a shared savings design with required minimum quality and cost performance threshold.

14. P4P has motivated health care providers to deliver quality services to patients. What extent do you think the program benefits the patients too?

RESPONSE: Since the study site does not work specifically with patients, no answer was available for this question.

15. Benchmarking and exchange programs help a lot in the improvement of any organization. As such, what arrangements have been made to ensure that health caregivers experience service delivery outside their work environment?

RESPONSE: Benchmarks are calculated by measure using performance information across all participating physician organizations. The benchmarks include N, average, min/max, and percentile breakdowns from P5 to P95.

16. Normally, rewards are given to the best performers in most institutions. Can you tell me if you experience best performers in service delivery?

RESPONSE: Recognizing high performers adds a new public recognition award called the Excellence in Healthcare Award, which is an excellent award aimed at recognizing those organizations that were demonstrating value. The study site has always recognized high performing physician organizations through public recognition awards. While the study site has always recognized high performers, a new public recognition, a new recognition award called the Excellent in Healthcare Award is designed to recognize those winners who are represented by those organizations who were demonstrating value. The Excellent in Healthcare Awards are those physician organizations who perform in the top 50% across all the participating

organizations and in the top 50% of the patient experience, as well as in the bottom 50% of total cost of care. These same organizations also provide the highest quality care with the highest levels of patient satisfaction while moderating cost range.

17. What form of rewards do you give to the best performers in your program?

RESPONSE: P4P Commercial HMO recognizes high performing physician organizations through public recognition awards. This recognition includes identifying physician organizations who demonstrate the highest levels of quality improvement year over year. It also includes physician organizations who perform in the top 10% of all physician organizations in the P4P Commercial HMO measurement domains of quality, patient experience, and total cost of care. It includes the Excellence in Healthcare award, which recognizes physician organizations who demonstrate value simultaneously performing in the top 50% of overall quality and patient experience and the bottom 50% of the total cost of care. The study site also recognizes these POs at our annual stakeholder's meetings on the study site's website. These public recognition award methodologies are publicly available.

18. During this study, it was discovered that there is limited literature discussing step-by-step instructions on how to successfully implement pay-for-performance programs into an existing structure. Can you provide some insight on where such critical information can be found?

RESPONSE: The study site has published an issue brief that outlines step-by-step details of the shift in the incentive design from a traditional pay for performance model to a design that incentivizes value. The other core elements of the program, including aligned measurement, public reporting, and physician organization recognition did not go away, but also reiterated the emphasis on value by incorporating measures of clinical quality, patient experience, utilization, and cost; publicly reporting clinical quality, patient experience, and cost; and recognizing physician organizations who demonstrate high quality, affordable care – other high value care.

MERGING P4P WITH TECHNOLOGY OUTCOMES

ADJUSTMENT: This researcher decided to adjust this section of the interview for this participant. Since this individual's role mainly focuses on measurement, as well as engaging with the stakeholders and health plans, her role is not focused on the technology aspect of the program. Therefore, it only made logical sense to skip this portion of the interview guide, as her input of the technology component; outside of using specific P4P related applications designed to help the organization abstract and view data, this places limitations on how detailed the expansion of the conversation would be about the technology. The study site has an entire information technology team who work specifically with the implementation and maintenance of technology.

19. How does merging technology with P4P produce positive patient outcomes?

RESPONSE: Due to the participant's role, question nineteen was removed.

20. Technology changes daily and new trends come up. What results do you expect when you incorporate technology into your existing program?

RESPONSE: Due to the participant's role, question nineteen was removed.

21. From your perspective, what impact does technology have on patients that enjoy the services offered by their provider?

RESPONSE: Due to the participant's role, question nineteen was removed.

22. The aim of any organization is to ensure that costs are controlled. What do the effects on the overall cost of a P4P program can be expected when technology is merged with P4P?

RESPONSE: Due to the participant's role, question nineteen was removed.

Participant ID: 003

Can you please describe what your role is with working with the Value-Based P4P program for the study site?

RESPONSE: My job duties entail overseeing the data collection and reporting efforts and analyzing program results and report them back to the physician organizations and health plans.

INITIATIVES THAT DRIVE HEALTHCARE QUALITY

1. What significant P4P initiatives drive quality of health provisions?

   RESPONSE: I think there has been literature evaluating P4P programs across the United States. I remember in grad school, this was a topic we did touch on and learning about the efficacy of an alternative payment model itself and how that would result in quality improvement in healthcare. The study site is one of the largest programs and one of the longest running ones. We are in our 15th year of measurement and benchmarking; so, supporting the use of performance information and financial incentives for our participants, which include health plan incentives, payment plans, and public reporting in partnership with the Office of Patient Advocate Report Card. The study site also has a public recognition component recognizing high performing organizations at our annual Stakeholders Conference. Therefore, I think that when we look at the data, I think that it does drive quality because we do see improvements in our physician organizations that are accountable for the care. Throughout the years, we can see that some of the physician organizations consistently improve over time. For those high performing physician organizations that eventually do not see huge improvements over the years, they can attain high performance.

2. In respect to the P4P program, it is evident that physicians have improved their services and how they deliver them to patients. What is the key motivator in their service delivery?

   RESPONSE: In respect to the P4P Program, I think there is evidence that our stakeholders are motivated to improve quality. They are engaged in the results they are receiving from us, sharing the results and making sense of what they see so they can focus their quality improvement efforts and transition towards a value-based model of high quality and low-cost. This allows them to be competitive within this industry.

3. How else can the healthcare providers be motivated apart from the payment initiative?

RESPONSE: We do hear from our stakeholders that the plan payments received through the study site program is not the primary driver of why they participate, and why they are engaged in wanting to improve their quality. The program has other aspects such as aligned measurements across the entire plan to standardized reporting and measurement. This gives them a spectrum of how they are doing based on the contracts they have. Additionally, it allows them to receive all-plan aggregated results, which is a better signal of their performance. It is an apples-to-apples comparison when physician organizations compare their performance against other physician organizations and across their contracted plans. We also aggregate the data and feed that back to them, so they can see holistically how well they are doing. Physicians do not think about how their members being an Anthem member or a Blue Shield member, as they treat their members all the same, or that is what we would think about for doctors delivering care. The standard measurement is a big part of what we do, and our stakeholders see a lot of value in that for; again, focusing on their quality improvement efforts and trying to understand what is happening with their population.

The other big piece we do is the benchmarking piece, which gives them thresholds and benchmarks of how well they are doing when they are comparing themselves to other medical groups or physician organizations across the State of California for Commercial HMO/POS. Their rates might be high, but how are they doing in comparison to their peers. With both align measurement and benchmarking, I think that is the motivating part. The other thing is that when we work through issues with our stakeholders, including the physician organizations and the plans, we kind of bring everyone together to solve the industry-wide problems, as well as improve the process for data sharing. Supplemental data, for instance, is important in getting accurate results; therefore, to identify what type of issue and leverage what our participants do and how well they do it, or perhaps well they are not doing, and inform our stakeholders. Bringing everyone together to solve these industry-wide issues is what folks are struggling with.

4. Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern their service delivery?

   RESPONSE: When looking at our data and analyzing their performance over time we do see marked improvement. When we look at year over year results for a specific measure, for instance, we see very incremental improvement, but when you look over a five-year span, we get to see how well this measure has been doing, or how well a physician organization is doing in a certain measure, we can see improvement. For the study site, we try to translate that into a clinical or live phase to translate it back to our quality improvement folks to help them understand what it means, concerning patients that have improved over the years.

5. What are the parameters you use to measure the excellent service offered by health care providers?

   RESPONSE: We have something we call an Excellence in Healthcare Award, which awards physician organizations who are performing above the 50th percentile in overall clinical quality and patient experience and the below 50% for their total cost of care. This is our way recognizing physician organizations who demonstrate high clinical quality and patient satisfaction while effectively moderating their costs.

6. This plan motivates the health caregivers, and they seem to give impressive results. Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance?

   RESPONSE: I do not believe we have encountered any physician organizations that have done things outside the agreement they have signed with the study site. When we try to report these measures, and when we benchmark them, we do think about whether there is a perverse incentive. Regarding how they operate and what they do at their Medical Group, we do not have any prevue into that.

7. In your course of the evaluation, what is the interval at which you do performance appraisals? Per day; week? What period do you consider reasonable?

   RESPONSE: Currently the Align Measure Program measures the physician organization performance is reported on an annual basis. What the study site has heard from the plans is that it would be good to do quarterly reporting so that the physician organizations and the plans themselves get reporting by the quarter to make it more actionable. I think that in the study site's line of sight and down the pipeline, it is something we do want to move towards quarterly reporting; to ensure that the data that the results we are providing can be actionable then, but right now it is on an annual reporting basis.

8. I understand this program has been running for a while now. Do you have plans to incorporate other ways of rewarding performance other than payment?

   RESPONSE: We reward through public reporting, as it holds organizations accountable, but it also recognizes those five-star physician organizations, which is one of the ways the study site rewards physician organizations and hold them accountable. The other is recognizing them, in that we have three types of recognition we do during our stakeholder's meeting. The is the biggest improvement in clinical quality and patient experience domain for each of the eight regions. Next is the Excellence in Healthcare Award, which recognizes those high performing physician organizations who can hit the “Triple Aim” for patient experience and clinical quality; while containing their costs. The last is recognizing the top 10% of each domain, in that we do not monetarily reward them, which is basically through the plan, but for us, we heard that the way we recognize our physician organizations is

valuable to them and they take back and include this information into marketing materials.

9. During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges?

   RESPONSE: I think the biggest challenge we run across is the data, as data can be messy. It is different for each of the plans and how they pull their data for us. When I say data, I mean clinical data, pharmacy data, etc. The way we want to standardize our data and knowing that presents challenges for each of the plans because the way they store data is different. I think that it is a challenge, but it is also something we have been able to work through to make sure the data is the most comprehensive and accurate; we are then able to generate our results. I will say that our stakeholders are extremely engaged are great to work with, so from that standpoint, I do not think I have run into any issues.

10. Benchmarking is a tool used to measure performance in most organizations. Do you benchmark your organization?

    RESPONSE: The study site's P4P Commercial HMO/POS program provides benchmarking back to our participants, which consists of about 95% of the HMO/POS population in the State of California. All the study site physician organizations programs are built around benchmarking, which is a significant component to our participants. The other organizations, or other initiatives, I believe also have benchmarks, but it is not comparable if they are not using the same measure. The study site has the State of California benchmarking for commercial HMO for instance, in that we compare that with HEDIS benchmarking for the measures that are HEDIS verified. We can compare, for example in California to national benchmarks to see how well this should not be doing any specific measures.

11. ADDITIONAL QUESTION: Have there been any measures where the participants who are doing so well, cap out with a specific measure, and how is this handled?

    RESPONSE: We have three committees that govern the program, such as the governance committee, we have two technical committees, one of which is the technical measurement committee, while the other is the technical payment committee. The technical measurement committee reviews the measure set every year to see what gets to be included in the measure set; whether there is an area that needs to be aligned, and if there are measures where organization capped out. This is where the committees determine if a measure should be retired. For measures that are being capped out, there is no more gain or improvements on them; this is when the committees vote to retire them and add new measures that are either something that is a big issue nation-wide that shows that improvement is needed.

ADDITIONAL PROGRAMS TO BE MERGED WITH EXISTING P4P PROGRAMS

12. What additional programs can be integrated into existing P4P programs?

    RESPONSE: I think that any program that can leverage a standardized measure set or aligned measure set can exist in the P4P Program. Right now, our program spans to Commercial HMO, Commercial ACO, Medicare Advantage, and Medical Manage Care. This leverage consists of the same measures across all product lines of all the programs. Understanding that there are caveats, such as when only certain measures can only be measured by Medicare. Another example is when the Medicare population can only be measured for specific measures.

13. Your program has worked well over the years and has served its intended purpose. Do you feel it is necessary to incorporate other programs?

    RESPONSE: We do have measures that are product line specific, but across the board is aligned. With those measurements, we can not only measure by product, but we could also do it by region, payer and product, and by county. There are different ways we can incorporate other projects and programs using the current data we have. Currently, the Department of Public Health is interested in the data we have for immunizations to aid in their efforts to improve efforts for a project they are currently working on. The Cancer Quality Committee is also interested in working with the study site to incorporate cancer data, for instance, their cancer measures so that could leverage our results.

14. What expectations do you have when additional programs are incorporated into your system?

    RESPONSE: Currently, we are trying to standardize our process, in the way they can incorporate into our current existing program that adheres to our standard in processes. I think that makes it a lot easier to streamline the process and improve our efforts to onboard them.

15. P4P has motivated health care providers to deliver quality services to patients. What extent do you think the program benefits the patients too?

    RESPONSE: The patient directly benefits from the improved quality, more affordable care associated with Align Measure Program participation; so, when a medical group does improve on specific measures it is a direct impact on their patients. The appropriate population is getting the right treatment; an age band is getting the immunizations or getting a specific type of test they need; so, I think patients directly benefit from the programs. It increases patient satisfaction, as this is measured through surveys to see how satisfied they are with their interactions, or access to care. Generally, our participants have high patient satisfaction scores.

16. Benchmarking and exchange programs help a lot in the improvement of any organization. As such, what arrangements have been made to ensure that health caregivers experience service delivery outside their work environment?

    ADJUSTMENT: The participant was not sure if she had the answer for this question; therefore, the decision was made by both the participant and researcher to remove it from the questionnaire.

17. Normally, rewards are given to the best performers in most institutions. Can you tell me if you experience best performers in service delivery?

    RESPONSE: My health plan provider is Kaiser, and when I see their ratings very high for patient satisfaction, I do see why the rating is high because working within the healthcare industry, you kind of looks for certain processes that particular a provider does. In other words, you tend to be more observant. Yes, I feel like I have experienced that, and I have never gotten a bad experience with my healthcare provider, and I have been extremely satisfied with my plan.

18. What form of rewards do you give to the best performers in your program?

    RESPONSE: The Excellence in Healthcare Award is presented to those physician organizations who are high performers. Recipients of this award represent those physician organizations performing 50% or higher in the overall quality of care, 50% or higher in the patient experience category and the bottom 50% of the total cost of care. We also recognize top performers (top 10%) and most improvements physician organizations. We also public report their results through OPA so you can see which physician organizations four stars (highest).

19. During this study, it was discovered that there is limited literature discussing step-by-step instructions on how to successfully implement pay-for-performance programs into an existing structure. Can you provide some insight on where such critical information can be found?

    RESPONSE: I do not know if there is documentation that provides this information on how to implement successful P4P programs to get the most value out of the program. I can speak to what the study site does to onboard new physician organizations, as the study site has a manual on how to provide the participating organization on how to be successful in the program itself. We also leverage the information we receive from current physician organizations of what they do successfully and give those guidelines and tips up to our new participants.

MERGING P4P WITH TECHNOLOGY OUTCOMES

20. How does merging technology with P4P produce positive patient outcomes?

RESPONSE: I know that investment in infrastructure, especially a technology infrastructure is very costly. At the physician organization level, I have seen where the P4P or the Align Measure Program incentive they receive for improving their outcomes can be leveraged to build or improve on their infrastructure; to ensure their technology can capture all the data elements for the members to ensure that results are generated. Data is messy, and data is hard, and when we can have some technology that supports the data reporting, it helps physician organization to understand the outcome of their data results better. I know that plans are heavily invested in their contracted physician organization infrastructure to make sure they can report the data back to them.

21. Technology changes daily and new trends come up. What results do you expect when you incorporate technology into your existing program?

    RESPONSE: We incorporate technology into our organization in that we always try to improve upon our technology efforts to improve our claims an encounter data for our participating health plans. Therefore, working with the best vendor that can standardize the processes or have quicker turnout time to determine if the file failed and that the participants understand why the file did not meet the required guidelines. It is crucial to have the best technology available to make sure that we can generate those results and when we work with our vendors, we generate those results, that the results are sustained our processes, but is flexible enough to be able to change our database architecture. This will also ensure that when we are moving towards an improved or a different direction that can support that. So, it is crucial for us to think about the technology side as well, and we have an entire team that thinks about that, in a sense that we are working with sensitive data and we must make sure the technology we have ensures privacy.

22. From your perspective, what impact does technology have on patients that enjoy the services offered by their provider?

    RESPONSE: From a patient perspective, we do not have insight, and we are not close enough to front-line physicians and providers to understand how they use technology within their organizations for better or positive patient outcomes. We do realize that technology is needed, for instance, any screening measures, the technology could be used to screen appropriate patients, so that physician organizations do not have to do additional outreach. If we can minimize the outreach that needs to be done, it can be done while the patient is there in the office. Technology can be used as a leverage to ensure better screening tools that capture such measures as diabetes level or test their A1c for a patient. So, I can see technology merging with a P4P or the P4P Program to produce positive patient outcomes because you know anything they do at this high level where we are looking at how well they are doing, it does have a trickle down to their patients.

23. The aim of any organization is to ensure that costs are controlled. What do the effects on the overall cost of a P4P program can be expected when technology is merged with P4P?

    ADJUSTMENT: It was determined that this question would be better presented to possibly one of the decision makers for the P4P program. Therefore, it was removed from the list.

Participant ID: 004

Can you please describe what your role is with working with the Value-Based P4P program for the study site?

RESPONSE: I do quite a few different things; I support the measure set operations on the P4P Team, which focuses on physician organization level measurement. I also support standardizing measurement for Medi-Cal, as well as Smart Care California, which is a public/private partnership that is co-chaired by three of California's largest purchasers who are focused on working to improve C-Sections and opioid safety and low back pain care. Smart Care is technically is not a performance measurement program, like the P4P program. Smart Care is like a multi-stakeholder collaborative where we try to figure out how to make a quality improvement on a policy level.

INITIATIVES THAT DRIVE HEALTHCARE QUALITY

1. What significant P4P initiatives drive quality of health provisions?

   RESPONSE: In terms of our program, we are in the 15th year of measurement, and we have seen that by having a focused measure set that multiple plans or provider organizations are required to report on, it helps to kind of focus efforts on the measures within the measure set. So, this helps to drive a concerted effort for improvement.

2. In respect to the P4P program, it is evident that physicians have improved their services and how they deliver them to patients. What is the key motivator in their service delivery?

   RESPONSE: I want to capture this from my perspective of working on the ground with providers in the past. I think one of the biggest motivators we should be tapping into is providers and their staff's desire to help patients because doctors went to medical school to help patients; not so much to reduce GDP. So, when you are promoting quality improvement initiatives and the P4P program can be interpreted as a quality improvement initiative because it relies on providers and health plans using data-driven improvement, it helps to tie the initiatives back to improving health, which helps patients in the end.

3. How else can the healthcare providers be motivated apart from the payment initiative?

   RESPONSE: I think tapping into their internal desire to want to help patients and I feel a lot of the clinical improvement that can be implemented could also lead to better performance. It comes down to making processes more efficient, and more sustainable getting other team members other non-physician team members involved

so that everyone has a piece in taking care of the patient and making life easier for the provider at the end of the day.

4. Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern of service delivery?

   RESPONSE: I think the way I interpret the program is to say the study site it is a voluntary program. The only contractual obligations we have are that the health plans and provider organizations give the study site data, and health plans must give the study site data and that the organizations must provide data, so they control what happens regarding the delivery of care on the ground.
   .
5. What are the parameters you use to measure excellent service offered by health care providers?

   RESPONSE: We have five domains of measurements, and we look at clinical quality, we look at patient experience, we look at the Advancing Care domain (meaningful use). It mostly looks at how well our providers can use our EMR to report on measures, such as blood pressure screening. We also look at the appropriate utilization of care, as well as the total cost of care.

6. This plan motivates the health caregivers, and they seem to give impressive results. Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance?

   RESPONSE: I have not encountered any situation where there were ethical issues regarding code of conduct.

7. In your course of the evaluation, what is the interval at which you do performance appraisals? Per day; week? What period do you consider reasonable?

   RESPONSE: I can speak to this question from my current role at the study site, and my experience in quality improvement work with primary care in the past. For the P4P program, we do report physician organization performance on an annual basis, and we use that for accountability purposes, as well as for payments and public reporting. Putting my old hat back on, to drive improvement physician organizations, especially providers and their clinical teams, they need performance information reported back to them much more frequently. I think from my prior experience; I think the frequency that I have seen the most is monthly reporting. I have also seen quarterly, and in some instances weekly reporting. However, the frequency of reporting depends on what it is the organizations are trying to measure.

   Regarding performance improvement, the study site has an excellent measure set. A lot of those things might not make sense to measure at a more frequent interval. For

example; using colorectal cancer screening as an example, to help practices boost their rates, they also need to track how many outreach calls are made to the patient to get them to come in and get their screenings. So, that is kind of like an intermediate process that the study site does not track, but that type of activity, physician organizations can track that more regularly, in hopes of helping them on their colorectal cancer screening rates that the study site has data for on an annual basis. If you are doing PDSA, you want to see the impact immediately in the data, so, it all depends on how technologically capable your physician organizations are in producing data at different levels.

8. I understand this program has been running for a while now. Do you have plans to incorporate other ways of rewarding performance other than payment?

   RESPONSE: Besides financial incentives, another way we incentivize people is through public reporting on the OPA website, as well as through the public recognition awards, we give out annually at our stakeholder's meeting.

9. During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges?

   RESPONSE: In my role as a project manager I have not interacted a lot with the physician organizations who participate in the program; outside of committees. One of the challenges I run across as a Project Manager, regarding measures, is those physician organizations sometimes struggle with measure alignment versus measure concept alignment. For example, you can work on blood pressure, but there are a couple of blood pressure measures that have different measures specifications, and previously I did not understand this level of detail when you are trying to do performance measurement. I think that level of detail is kind of difficult to understand, and especially for me since I am still learning about measure exclusions and things like that. I think the study site helps physician organizations navigate that because this stuff is complex and can get confusing when you think about specifications and measure exclusions and things. I feel like that could be challenging.

10. Benchmarking is a tool used to measure performance in most organizations. Do you benchmark your organization?

    RESPONSE: I do not think the study site has done this, regarding comparing themselves to other organizations with similar programs, in that it would be interesting to think about the measures being compared. The study site is a "regional health improvement collaborative," and most states have their regional health improvement collaborative, but I do not think other states run statewide provider incentive programs as the study site does, but I do not believe we have done a kind of competitor analysis to see kind of where we fall. I do not think we have a metric

system in place to how we could make that comparison and do not believe we have prioritized that as an activity for the P4P program at the study site.

11. ADDITIONAL QUESTION: Have there been any measures where the participants who are doing so well, cap out with a specific measure, and how is this handled?

    RESPONSE: That is a good question! I think from my perspective, now that the P4P program has expanded to different product lines. We have the P4P Commercial HMO, and Medicare Advantage in the last year we have recently expanded into Medi-Cal, which is California's Medicaid program, as well as commercial ACO, we are getting a better look at the entire California population of patients; so, we will be able to get more data across product lines. Something I am interested in because of my work on Smart-Care, the feedback I heard is that P4P is mostly focused on measuring performance for primary care providers and primary care practices, but there could be an opportunity to do measure performance for specialty organizations as well as hospitals.

ADDITIONAL PROGRAMS TO BE MERGED WITH EXISTING P4P PROGRAMS

12. What additional programs can be integrated into existing P4P programs?

    RESPONSE: Previously I mentioned hospitals and specialty care. I think because the study site has been kind of like the bread and butter for the performance measurement at the primary care practice level for 15 years that we should stick to that. I think one way we could expand P4P into other areas like hospitals or specialty areas and potentially partnering with other stakeholders because the study site does not do much work in the hospital arena. There are a lot of opportunities to improve on the hospital side, so partnering with would be beneficial. I think that for specialty care, and looking at our ACO program, adopting specific specialty care measures could be a potential option for extending measurements beyond primary care.

13. Your program has worked well over the years and has served its intended purpose. Do you feel it is necessary to incorporate other programs?

    RESPONSE: I do not know if I'm the best person to answer this, but regarding all the programs that the study site runs, we expect participants to give us data. We expect to have their data somehow from the health plans. For our measurement program to be functional, we need to have data, and we need to have some member level data to be able to do the types of analysis that we currently do.

14. What expectations do you have when additional programs are incorporated into your system?

    RESPONSE: From my perspective, I do not think that patients on the ground know much about P4P, but I do feel like patients do directly benefit from the improved

quality or improved patient experience, or more affordable care associated as a result of physician organizations participating in the P4P program. So, even though patients might not know what P4P is, or they might not know how their providers are participating in quality incentive programs (honestly, I do not think patients need to know that); instead patients' need to know that they are getting the right care at the right time and in the right place.

15. P4P has motivated health care providers to deliver quality services to patients. What extent do you think the program benefits the patients too?

    RESPONSE: I think being a Kaiser patient all my life, I think Kaiser usually wins out a lot of our awards. One of the new awards the study site has been recently for the past couple of years; we have also been recognizing the top 10% for clinical quality as well as patient experience. For the clinical quality and the patient experience awards, a lot of the physician organizations we recognized are Kaiser Physician organizations.

16. Benchmarking and exchange programs help a lot in the improvement of any organization. As such, what arrangements have been made to ensure that health caregivers experience service delivery outside their work environment?

    RESPONSE: I think with having a well-integrated system, I have directly benefited from Kaiser having a very integrated system, but I think that there are a lot of integrated systems now. Not everywhere is integrated, so, not everyone gets the same access to their data like let's say a Kaiser member does. I think one of the things that through our work at the study site, we do try to highlight the value of integrated care to patients. One of the tradeoffs is with my Kaiser experience was trying to fill a $5.00 prescription for an antibiotic, but it cost $80 at Walgreens because you can only benefit from the discount only if you purchase your prescriptions at a Kaiser facility. If you have a healthcare plan with like United Care, you can go to a Walgreens or CVS pharmacy, but if you are a Kaiser patient, you get the benefit of all their integrated care, but then you are forced to go over their pharmacy.

17. Normally, rewards are given to the best performers in most institutions. Can you tell me if you experience best performers in service delivery?

    RESPONSE: In terms of the reward, it would be about public recognition; so, recognizing physician organizations who perform in the top ten percentile, more quality of patient experience, as well as recognizing organizations who are most improved. We do those recognitions at our annual stakeholders' meetings.

18. What form of rewards do you give to the best performers in your program?

    RESPONSE: I know the study site has published issue briefs about our program. I think the most recent one is in 2016, where it was discussed how the study site

program for the P4P program made the transition from just a quality-focused program to a value-based program that also incorporated appropriate resource utilization and costs, but the study site does not have a step-by-step detail. Regarding our issue brief, it talks a lot about the program operations, what we measure, how the payments work and how the incentive is designed. There is also a lot of work on the backend that happens regarding stakeholder involvement and different processes that occur to get all the physician organization and health plan participating.

19. ADDITIONAL QUESTION: For organizations like Leapfrog or Hospital Compare, is this information shared with the participating organizations to motivate and encourage their quality improvement efforts?

    RESPONSE: Yes, for participants, or at least participants in commercial HMO and Medicare, they know that their physician organizations are rated on the Office of the Patient Advocate website. T data is used to assign star ratings for physician organizations; so, patients can access such sites as such as OPA to look up some of the clinical safety areas and make informed decisions on which facility they would like to select.

MERGING P4P WITH TECHNOLOGY OUTCOMES

20. How does merging technology with P4P produce positive patient outcomes?

    RESPONSE: There are two ways in how I think technology can be interfaced to support P4P programs. Technology can be used enabling provider organizations to gain more access to granular data on their patients that supports better delivery of care. So, using colorectal cancer screenings as an example again, to say a physician organization had a patient colorectal cancer screening rate of 70%. There is technology or data software available that physician organizations can be used to click on a portal within that application that will list those patients not screened for the colorectal cancer screening. This allows practices to do outreach for these patients in need of this service.

21. Technology changes daily and new trends come up. What results do you expect when you incorporate technology into your existing program?

    RESPONSE: People at the practice can get more detailed information that will enable the staff to follow-up with the patient to get them in for the appropriate screening. There are technologies that practices can adopt that will help them perform on the metrics they are being held accountable for, there are machines that can do an A1c diabetes screening like in the clinic, or there are special cameras that you can buy to do a diabetes eye exam in the clinic, so patient does not have to go elsewhere. So, when you are doing all those services in one location; kind of like how Kaiser has

everything in one location, you can make sure that the care happened onsite, and the program can document that something happened.

22. From your perspective, what impact does technology have on patients that enjoy the services offered by their provider?

    RESPONSE: I think the impact is that the patients get better service, better quality of care and better patient experience, as well as better access to care.

23. The aim of any organization is to ensure that costs are controlled. What do the effects on the overall cost of a P4P program can be expected when technology is merged with P4P?

    RESPONSE: I think the ultimate hope is that technology will make things better for the patient. I know that implementing new technology always has hiccups and sometimes it can make things worse for patients. Thinking specifically about one of the health systems I worked with when they implemented e-Clinical Works, it reduced patient access. Providers could only see a few patients for half a day when the clinic was going through the implementation process. Initially, I think the impact of new technology can be a negative experience for the patients, but physician organizations must keep the long-term picture in sight which is ultimately providing better care for patients. However, you must communicate to patients and bring them along with practices on this improvement journey. Sometimes things must get worse before they get better.

    ADDITIONAL DIALOGUE: This researcher extended the conversation to this response by reflecting on the dissertation journey and discussing the importance of finding organizations that are in unfortunate situations and lack the proper funds to identify and implement technology to help improve their patient care efforts. One of the resolutions discussed was having companies like McKesson Provider Technologies, Quadramed or perhaps Siemens, all of which are organizations geared towards assisting physician practices or hospitals with not only identifying the appropriate technology, customizing that technology to fit the organization’s needs but also working with these institutions to implement the technology in phases. The result of this strategy would be that technology and training conducted in a manner that will not impede the organization's progress by providing continuous quality patient care throughout the transition.

Appendix C: Qualitative Data Coding Analysis Worksheet

INTERVIEW QUESTIONS	Technology	Patients	Costs	SITE	Commercial
	CODE	LE0001	GG0002	TN0003	JW0004
How does merging technology with P4P produce positive patient outcomes? (Q-1)	TEC		TEC	TEC	TEC
What is the key motivator in their service delivery? (Q-2)	PAT		PAT	PAT	PAT
How else can the healthcare providers be motivated apart from the payment initiative? (Q-3)	COS		SITE		
Have the physicians significantly improved the way they offer services under the P4P program? Are there minor working conditions surrounding that concern of service delivery? (Q-4)	IHA		COS		SITE
What are the parameters you use to measure excellent service offered by health care providers? (Q-5)	COM		COM		
Can you tell me if ethical issues regarding code of conduct is a determinant in rating performance? (Q-6)				SITE	
Do you have plans to incorporate other ways of rewarding performance other than payment? (Q-8)		COS			
During your duty, there are challenges that you may be facing. Would you please tell me some of these challenges? (Q-9)		COM			
Do you benchmark your organization? (Q-10)				COM	
What extent do you think the program benefits the patients too? (Q-14)			PAT	PAT	
Can you tell me if you experience best performers in service delivery? (Q-16)		SITE			
What form of rewards do you give to the best performers in your program? (Q-17)					COS
Are you aware of any step-by-step guide that provide instructions on how to implement P4P measures into existing programs that lead toward positive outcomes in improve quality of care for patients? (Q-18)		PAT			
What results do you expect when you incorporate technology into your existing program? (Q-20)				TEC	
What impact does technology have on patients that enjoy the services offered by their provider? (Q-21)		TEC		TEC	
What effects on the overall cost of a P4P programs can be expected when technology is merged with P4P? (Q-22)		TEC		COS	TEC

Appendix D: Semi-Structured Interview Coding Graph