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Relationship Between Incentive Program Costs, Incentive Payments, and Profitability

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This is to certify that the doctoral study by

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Abstract

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MBA, Argosy University, 2014

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

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Abstract

The lack of profitability among primary care businesses can have harmful impacts on business operations. Primary care businesses owners must remain profitable to remain in business and provide quality health care to patients. Grounded in Freeman's stakeholder theory, the purpose of this quantitative correlational study was to examine the relationship between incentive program costs, incentive payments, and profitability. Data were collected from 73 primary care physician business owners in the Inland Empire region of southern California. The multiple linear regression analysis results indicated the model was able to significantly predict profitability, $F(2,70) = 1343.6$, $p < .001$, $R^2 = .975$. Incentive payments ($t = 51.837$, $p < .001$, $\beta = .928$) was the only statistically significant predictor. Key recommendations include educating primary care physicians on the potential financial benefits of full participation in the commercial line of business pay-for-performance incentive programs and creating a campaign to bring in patients for wellness visits. The implications for positive social change include the potential for an additional revenue stream for primary care physician business owners, which could support more clinics, increasing patient access. Patients having better access to healthcare could positively affect the health and wellness of individuals in local communities.

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Dedication

This dissertation is dedicated to my wife, Shelly. She encouraged me to pursue a doctorate and supported me through the entire process. Her focus on clearing space and time for me to move forward was phenomenal. She kept me fed and watered when I was working late, so I could meet my goals. Her appreciation of knowledge and understanding of its importance makes her so very special.

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My friends and family showed great understanding for my commitment to this journey and planned events around my schedule. I will be forever grateful for their love and support. I owe a favor to many people who supported this journey.

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Section 1: Foundation of the Study

Healthcare incentive programs can be an additional revenue stream for primary care physician business owners. Primary care physician business owners have the priority to care for patients with appropriate healthcare operations while demonstrating profitability (Skirbekk et al., 2017). Clinicians who provide the necessary preventive procedures for patient care could receive monetary incentives if they choose to participate in a healthcare pay-for-performance (P4P) incentive program. Patients, health plan leaders, and clinicians are stakeholders in the healthcare industry and can benefit from an additional revenue stream.

Multiple P4P programs exist that could provide an additional revenue stream to healthcare providers. The incentive programs reward healthcare providers for performing specific preventive treatments for patients who are vulnerable due to a healthcare condition or age (Integrated Healthcare Association, 2018). The incentive programs reward healthcare providers for performing preventive treatments for patients who are vulnerable due to a healthcare condition or age. Healthcare expenditures in the United States are higher than in other countries, but some patients experience worse health outcomes (Soneji & Yang, 2015). Proactive patient care could potentially mitigate preventable conditions such as diabetes, which could decrease the costs of treating chronic disease. The results of this study may aid primary care physician business owners in deciding to participate in healthcare incentive programs that may increase profitability.

Background of the Problem

Primary care physician business owners have opportunities to increase their revenue by participating in incentive programs. Glover et al. (2018) found 37.2% of primary care physician business owners do not submit the necessary information to receive the full incentive payments. Healthcare incentive program analysts are dependent on clinical providers submitting valid, accurate data as evidence of patient care (Integrated Healthcare Association, 2020a). The incentive programs have payments associated with measures ensuring patients receive appropriate treatment, such as preventive procedures, lab work, and medication reviews (Goodrich, 2015). The programs also ensure healthcare entities adhere to regulatory requirements, including accurate and complete data (Quality Payment Program, 2018).

The focus of this study was to identify the costs of participation in healthcare incentive programs and to determine any possible effect on profitability. Diversified provider reimbursement programs can offer incentives to healthcare entities (Bowling et al., 2018). Creixans-Tenas and Arimany-Serrat (2018) found healthcare leaders who increase profitability with long-term projects create financial stability for the organization. Resilience is the primary concern for stakeholders, and their feedback could design a sustainable system for a resolution to the current problem (Anderies, 2014). A tenet of this study was an examination of the strategic costs primary care physician business owners incurred to participate in healthcare incentive programs and if the incentive payments covered the expenses or the costs outweighed the additional revenue stream of incentive payments.

Problem Statement

Almost 40% of eligible primary care physician business owners have not been receiving full reimbursement from healthcare incentive programs for commercial health plan patient care (Glover et al., 2018), which could reduce profitability and restrict the expansion of services. Because of the lack of participation in healthcare incentive programs, several physician organization leaders have reduced the potential for revenue for healthcare organizations by more than $324 million dollars (Glover et al., 2018) that they could have earned for work already performed in the clinic (Singh, 2019). The general problem was that primary care physician business owners were not receiving the full reimbursement for patient care provided due to the lack of participation in incentive programs. The specific business problem was that some primary care physician business owners did not understand the relationship between healthcare P4P incentive program costs, incentive payments, and profitability.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between incentive program costs, incentive payments, and profitability. The targeted population consisted of managed-care commercial health plan patients between the ages of 18 and 65 in the Inland Empire of southern California. The independent variables were incentive program costs and incentive payments. The dependent variable was profitability. The implications for social change included the potential for expanded patient services and increased patient care opportunities to create a healthier society.

Nature of the Study

To undertake a study of this type, the quantitative method was applicable. Quantitative methodology is suitable when a researcher analyzes numerical data or survey results (Kisely, 2015; Saunders et al., 2015). Because the focus of this study was to examine the relationship between incentive program costs, incentive payments, and profitability, the quantitative method was appropriate. Other methods available were qualitative and mixed methods. The two methods are appropriate when researchers use observation and interpretation to define new knowledge (Rahi, 2017) or to test an established theory (Yin, 2018). This study did not include observing business operations or interpreting interview responses. For this reason, neither qualitative nor mixed methods were appropriate for this study.

I selected a correlational design for the study. Saunders et al. (2015) described the correlational design as analyzing independent and dependent variables to examine the relationship between them. This study included an examination of the relationship between the dependent variables of incentive program costs, incentive payments, and the dependent variable of profitability. Because this study contained an examination of the relationship between independent and dependent variables, a correlational design was appropriate for the study. Other designs I considered were experimental and quasi-experimental. Experimental design involves altering variables and measuring against a control group, which may not be realistic measurements of behavior (Saunders et al., 2015). A quasi-experimental design allows a researcher to measure variables, but there is no control group (Saunders et al., 2015). The design of this study was not conducive to

examining the variables to analyze the effect on business profitability; therefore, the experimental and quasi-experimental designs were not appropriate for this study.

Research Question

What is the relationship between incentive program costs, incentive payments, and profitability?

Hypotheses

$H_0$1: There is no statistically significant relationship between incentive program costs, incentive payments, and profitability.

$H_1$1: There is a statistically significant relationship between incentive program costs, incentive payments, and profitability.

Theoretical Framework

Freeman (1984) presented the stakeholder theory to demonstrate the significant influence stakeholders have on company leaders. Freeman's stakeholder theory (FST) comprised tenets from the systems, corporate social responsibility (CSR), and organizational theories and included influences from politics, sociology, economics, and ethics (Freeman, 1984; Mainardes et al., 2011). Freeman and Phillips (2002) clarified the theory relied on Libertarian ideas of individual freedom to create influence and developed a related strain of the theory applied to capitalism. Freeman et al. (2004) expanded the theory to emphasize trust as the foundation of the relationship between company leaders and stakeholders. The researchers emphasized FST's influence on an organization's success.

Stakeholders are those individuals or groups having an interest in or the ability to influence the outcome of the business decisions (Fritz et al., 2018; Mease et al., 2018). For the study, the stakeholders were primary care physician business owners with the decision-making power to participate or decline participation in healthcare incentive programs. Leaders in the healthcare industry rely on systems for patient care and CSR for community wellness. Sociology, economics, and ethics hold significance for healthcare providers when resolving patient health issues (Skirbekk et al., 2017). Using the FST for the study provided me a lens with which to examine the stakeholder influence on incentive program participation and how the participation level affected profitability.

Operational Definitions

Current procedural terminology (CPT): A combination of alphanumeric characters that service providers use to identify medical, surgical, and diagnostic procedures and services to regulatory entities and health plans (CMS, 2018).

International classification of diseases, tenth revision (ICD-10): A clinical cataloging system for diseases (CMS, 2018), under the purview of the World Health Organization, the governing body.

Pay for performance (P4P): A generic term to describe incentive program requirements, which are the basis for determining individual scores, payments, and awards for clinicians submitting to the program (Integrated Healthcare Association, 2020b).

Assumptions, Limitations, and Delimitations

Researchers should acknowledge the assumptions and limitations of their study. Additionally, setting the delimitations will confine the investigation to the predetermined boundaries of the study (Yin, 2018). Assumptions, limitations, and delimitations are inherent in any research project (Yin, 2018). The definition, identification, and mitigation strategy for each set the foundation to assess the validity of the findings. Yin (2018) advised every researcher should be aware of epistemological, ontological, and axiological assumptions and address them appropriately.

Assumptions

Researchers could make assumptions about facts that they have not verified (Lussier, 2011). Merriam and Tisdell (2016) defined assumptions as facts that researchers cannot or do not confirm. My first assumption was that participants provided data elements for all the patients who qualify for a measure denominator in the P4P incentive program. The second assumption was that the information participants provided was up-to-date and accurate.

To address the first assumption, participants were able to submit the data elements in any format. Each participant was also given the opportunity to grant permission for me to extract the data on behalf of the participant. To mitigate the second assumption, I reviewed the dates of service and coding techniques to help ensure quality data results.

Limitations

Bengtsson (2016) defined limitations as influences on a study that the researcher cannot control and should treat as a weakness of the study. A possible weakness of the

study was a personal business relationship with the primary care physician business owners who participated in the P4P incentive program. The process used to code and submit records from the participating business owners was work performed on behalf of my employer's clients. Correlational analysis and regression analysis were used to help ensure I analyzed the data equally and fairly.

Delimitations

Delimitations denote the boundaries and scope of the study (Smith et al., 2016). The Inland Empire region of southern California was the geographic location of the medical groups (MGs) in this study. The participants in this study were limited to MGs meeting the minimum requirement for P4P incentive program participation. Primary care physicians must own the MGs or independent physician associations (IPAs) in this study.

Significance of the Study

The study findings may be of significance to the healthcare industry leaders because stakeholders expect clinical providers to provide patient care while still maintaining a profit (see Skirbekk et al., 2017). The results of the study could help primary care physician business owners gain insights into the possible revenue gains of participation in healthcare incentive programs. The decision to participate in these programs could lower patient care costs and provide an additional revenue stream.

Primary care physician business owners are responsible for managing a profitable company while also improving patient health outcomes (Pearson & Frakt, 2020; Skirbekk et al., 2017). Therefore, primary care physician business owners should seek to mitigate patient care costs to benefit from healthcare incentive payments. The results of this study

may fill the gaps in the business acumen of clinical business owners in that it will demonstrate how participating in healthcare incentive programs has the potential to increase profits for primary care physician business owners while continuing to provide the necessary and appropriate care for patients.

The implications for positive social change from the study's findings may include the potential for an additional revenue stream for primary care physician business owners, which could support more clinics. Mansour et al. (2017) proposed that incentive payments might initiate a positive social change cycle, which could improve patient health outcomes and increase incentive payments. Additional healthcare clinics could provide additional preventive or curative services to patients. Wang (2018) found preventive patient care is more economical than reactive treatments for acute conditions because a healthy population can create a positive effect on economic growth and productivity. Healthcare providers who use the additional revenue on earlier patient care interventions will meet incentive program metrics, which could increase profitability.

A Review of the Professional and Academic Literature

The purpose of this quantitative correlational study was to examine the relationship between incentive program costs, incentive payments, and profitability. I examined the relationship between the independent and dependent variables using the FST. The literature review contains three main sections, including theoretical framework, incentive program variables, and empirical studies on the relationship between incentive program costs and payments, which affect profitability. The first section will include a discussion of the FST application, which was the theoretical lens for this study. The

literature review section will include complementary and competing theories. The second section will be a review of the incentive program costs and incentive payment variables. The third section will contain a review of the incentive programs in the healthcare industry and the associated financial implications.

Strategies for Searching the Literature

The literature review contains current research primarily from peer-reviewed journals, scholarly books, and government publications. The literature review includes studies conducted in the areas of FST, healthcare incentives, healthcare business, P4P, and incentive programs. Online search engines and databases such as Thoreau, Google Scholar, and Business Source Complete contained research articles for this study published predominantly between 2016 and 2021. Search terms for the databases were *healthcare incentives, healthcare pay for performance, incentive programs, incentive program costs, quality measures, P4P measures, MACRA, P4P, AMP, Medicare 5 Star, Meaningful Use, healthcare leadership, stakeholder theory,* and *stakeholder theory opposition*. Table 1 is a summary of the sources used in the literature review.

Table 1

Literature Review Sources

Reference Type	Count	Percentage
Peer-reviewed articles between 2017 and 2022	100	82%
Peer-reviewed articles published before 2017	15	12%
Books published between 2017 and 2022	4	3%
Books published before 2017	2	3%
Total	122	100%

Application to the Applied Business Problem

The purpose of this quantitative correlational study was to examine the relationship between incentive program costs, incentive payments, and profitability. The principal research question of this correlational study may serve to understand the relationship between incentive program costs, incentive payments, and profitability. The independent variables were incentive program costs and incentive payments. The dependent variable was profitability.

Primary care physician business owners could affect profitability if they choose to participate or not participate in P4P incentive programs. The cost of professional services for appropriate patient care increased by 29% between 2015 and 2017 (Integrated Healthcare Association, 2019b). The literature review includes subsections with information on the theoretical framework, study variables, and healthcare incentive programs.

The focus of this study was to examine the correlation between the variables and understand the effect on profitability. The United States spends significantly more on healthcare expenditures and patients experience worse health outcomes compared to Western Europe (Scott, 2020; Soneji & Yang, 2015). Physicians endeavoring to lower costs could experience increased sustainability. Pearson and Frakt (2020) found reducing patient care costs had a significant effect on the sustainability of healthcare systems. Engaging in healthcare incentive programs could provide primary care physician business owners a foundation to make certain office clinicians complete preventive procedures appropriately. Proactive patient care may provide the potential to mitigate preventable conditions such as diabetes, which could decrease the costs of treating chronic disease.

Stakeholder Theory Application

Researchers can apply FST to studies in many industries. Fritz et al. (2018) proposed using a supply chain management approach to stakeholder management. The supply chain management approach identified direct and indirect stakeholder influence on business decisions. The authors designed a workflow for tiered suppliers and vendors categorized by stakeholder type based on the FST. Kapiriri and Donya Razavi (2021) posited healthcare company leaders could benefit from stakeholders who create feasible solutions from different perspectives based on their diverse experience in their study on resolving business priorities with stakeholder views. Leaders who prioritize the encouragement of stakeholders to combine their knowledge and skills could create innovative solutions (Laplume et al., 2021; Neuhofer, 2016). Stakeholder diversity has the potential to create a competitive advantage if organizational leaders embrace the

influence (Maken et al., 2015; Ogden et al., 2017). The researchers identified the positive influence stakeholders could have on business operations. The FST has many tenets that support the business acumen of stakeholders.

Business leaders may deal with multiple levels of stakeholder influence on different areas of business operations. Kilic and Kalkan (2017) used the FST to analyze company strategies for pursuing CSR to sovereign powers acting as a governmental agency. They stated stakeholders have levels of influence, and companies should identify which are the most important stakeholders to the success of the business. Business owners should measure the costs of stakeholder inclusion against the benefits of CSR (Anderies, 2014; McGahan, 2020). Kilic and Kalkan questioned the morality of CSR when creating environments that purport community improvement but realistically only benefit the business owners. Kilic and Kalkan demonstrated another aspect of the theory that leaders need to demonstrate responsibility to the stakeholders. Leaders should focus on including stakeholder opinions when attempting a change in business operations.

Leaders can apply the FST to assess stakeholder opportunities and build trust with influential stakeholder groups. The theory offers a basis for managers to build relationships with stakeholders to support organizational goals (Dal Maso et al., 2018; Huml et al., 2018). Huml et al. (2018) stated the theory attributes trust as the overriding tenet of the theory. Leaders who understand the level of stakeholder influence can use stakeholder influence to support strategic business decisions. Jones et al. (2018) identified a trusting relationship between company leaders and stakeholders positively influenced the competitive advantage. Stakeholder groups of consumers may demonstrate

loyalty if they participate in operational decisions. Moroni Cutovoi (2018) found leaders could increase stakeholder value by demonstrating sustainability endeavors. Depending on the market, sustainability may be the deciding factor in stakeholder support. Leaders should solicit stakeholder groups wisely and understand the priorities of the selected group.

If stakeholders do not have trust in the organization's leaders, the stakeholder contributions could be less constructive to the business. Managers can build trust with stakeholders by treating them equally (Huml et al., 2018; Li et al., 2020; Lochrie, 2016). The study results confirmed that treating stakeholders equally in the sports industry builds trust with the coach. Trust between stakeholders and business leaders may benefit from meaningful interaction between the stakeholders and leaders at various levels of business operations.

Another industry in which leaders could take advantage of stakeholder contributions for analysis is cultural tourism. Lochrie (2016) studied stakeholder engagement with Edinburgh's Old and New Towns, The Antonine Wall, and the Derwent Valley Mills World Heritage Sites in the United Kingdom and found the level of managerial capabilities affects the level of stakeholder engagement. Experienced leaders understand the importance of stakeholder relationships, and creating a relationship is an ever-present responsibility for successful business operations. Lalicic (2018) found tourism agency managers can increase stakeholder buy-in by creating an open innovation platform for communication. Stakeholder geographic diversity could contribute to profitability by identifying ways to attract international consumers. However,

international engagement can be difficult if leaders and stakeholders do not make enough effort to understand different points of view.

Complementary Theories

The FST incorporates ideas from other established research theories. Likewise, researchers developed theories with influence from the FST and identified complementary aspects between the FST and new theories. The expectancy theory, entrepreneurial allocation theory, and stakeholder salience theory support some of the same aspects of the FST.

Expectancy Theory

Researchers have historically applied the expectancy theory to individualized behaviors. Baumann and Bonner (2017) examined the expansion of expectancy theory in a group setting. The actor evaluated the characteristics of valence, instrumentality, and expectancy for each decision. Group application involved identifying the desired outcome before the study execution because the discussion and expertise of others played a role in the expectancy theory (Baumann & Bonner, 2017; Lloyd & Mertens, 2018). Individuals may not make the same decisions when contributing to a group as they would on an individual basis.

Individuals responsible for their own decisions may be less tentative when expressing an opinion compared to being held accountable by a group decision process. Baumann and Bonner (2017) stated the confirmation and denial of expertise identified the individual attempts and passes on designated tasks. The results of Baumann and Bonner's study indicated that participants were more reluctant to express expertise in a group

environment than on an individual basis so as not to be judged by the group. Rim et al. (2020) found moderated mediation can mitigate the participant's reluctance to express expertise. Business leaders could apply the understanding of stakeholder hesitancy when in a group setting and seek individual feedback.

The expectancy theory, as applied to a healthcare setting, relates to the entrepreneurship of primary care physician business owners engaging patients as the stakeholders. Renko et al. (2012) applied the expectancy theory to budding entrepreneurs to analyze how motivation affected business success. Lloyd and Mertens (2018) proposed a fourth tenet of social context would be an appropriate addition to the expectancy theory. Both research groups found valence, instrumentality, and expectancy are all related to the successful operations of a new business. The expectancy theory could apply to how the long-term behavior of new and established MG leaders affects incentive program participation and profitability.

Entrepreneurial Allocation Theory

Baumol (1990) developed the entrepreneurial theory and applied the concept that entrepreneurship combines current resources to create new businesses that could be productive, unproductive, or destructive. The categories of entrepreneurial activity are the role of institutions, the role of individual factors, entrepreneurial action and institutional change, entrepreneurial allocation influencing economic performance (Aeeni et al., 2018; Baumol, 1990; Matherne III et al., 2020). In a healthcare setting, many entrepreneurial roles could apply. Physicians may own their business, contract with a healthcare organization, or work as an employee in an institutional environment. Regardless of the

role, leaders need to establish trust with stakeholders as a catalyst for productive interaction.

There could be a great deal of fraud in the healthcare industry, and some of the business owners may have unproductive or destructive motivations. The unproductive behavior of entrepreneurs could be a result of the perception of government demands on revenue (Geyman, 2021; Pittaki, 2018). Abulencia (2021) and Aeeni et al. (2018) recommended more investigation into individual motivations and what mechanisms or processes entrepreneurs implemented. Freeman (1984) promoted CSR in the FST as a necessary objective for successful business operations. Healthcare leaders who understand the impetus of creating a new strategy will be able to set positive, achievable goals.

Stakeholder Salience Theory

Stakeholders can have varying levels of influence, depending on their role in an organization. Mitchell et al. (1997) and Gianfelici et al. (2018) posited the salience or prominence of stakeholders depends on how managers view the power, legitimacy, or urgency of the stakeholder influence. Stakeholder salience levels in each area could influence how a business owner perceives the stakeholder's power (Kapiriri & Donya Razavi, 2021; Khurram et al., 2019). The more effort required to establish trust with stakeholders could guide the level of salience managers assign to stakeholders. The reasons for assigning salience levels of influence could impact organizational leaders' decisions.

Leaders of an organization may assign and modify the salience of stakeholder influence based on specific situations. Thijssens et al. (2015) and Khurram et al. (2019) found legitimacy was the primary factor for salience levels assigned to stakeholders. Influences of power and urgency were important only when managers used the two aspects to support legitimate claims to stakeholder influence on environmental information. Managers assess stakeholder salience based on assorted combinations of corporate responsibility objectives and stakeholder influence levels of interest.

Managers assigning salience to stakeholders could also include the complexity of the stakeholder relationship. Primary or internal stakeholders have greater control and influence than external stakeholders over business strategy (Conaty & Robbins, 2018; Stadler et al., 2017). Thiel et al. (2012) confirmed stakeholder salience did not equate to ethical influence. There could be a stronger trust between primary or internal stakeholders than stakeholders with a secondary or tertiary level of influence. Internal versus external stakeholder status may be a determining factor in a business decision matrix.

Critiques of Stakeholder Theory

Researchers could apply FST to various types of studies in different industries. Many researchers found modifications or expansions to the theory were necessary to strengthen the theory application. Alvarez et al. (2020) stated the FST evolved from managing stakeholders to creating a network of participants who support a common endeavor. The authors pointed out that the original theory did not address how the initial stakeholder groups emerged in the company infrastructure. Okazaki et al. (2020) found

that stakeholders create networks with others having the same personal values. Leaders cannot assume the stakeholders are a finite set of participants but rather a flexible set of contacts identified for different purposes. Identifying stakeholder development is an essential step in creating trust with company leaders.

The FST may not be applicable if a foundation of trust does not exist among stakeholders or between stakeholders and business leaders. A criticism of the FST is that no process of developing a stakeholder connection exists in theory rhetoric (Amis et al., 2020; Crane, 2020; Miles, 2017). Business leaders must seek out information on creating the necessary relationships to support stakeholder management. Leaders who incorporate stakeholder engagement into the mission statement or company vision may be more successful in establishing trust among stakeholder groups.

Leaders using the FST in their strategic management style should be aware of the potential conflict of stakeholder and shareholder priorities. If the main strategic initiative of company leadership is to benefit shareholders, the FST presents conflicts because of the holistic approach to stakeholder management (Freeman et al., 2018; Hatherly et al., 2020). Shareholders are one group of stakeholders; however, they may not have the greatest influence (Freeman et al., 2018). Shareholder interests are not necessarily reliant only on profitability, but leaders must consider their contributions to successful business operations.

A holistic aspect of the FST is compatible with ethical company leaders. Conversely, Weitzner and Deutsch (2019) stated leaders who pursue profitability above other competitive advantages, such as customer loyalty, should not try to incorporate

instrumental stakeholder theory because stakeholders would view the attempt to create trust as insincere. Knowledge sharing is more important than stakeholder influence on management decisions (Oyemomi et al., 2019). The authors concluded the FST is no longer an asset to achieving a competitive advantage in the marketplace. The researchers' viewpoint conflicts with the intent of FST, which is to incorporate CSR to increase competitive advantage.

The holistic view of the FST conflicts with the idea that stakeholders either compete or cooperate with business leaders. Freeman (1984) and Olsen (2017) identified stakeholders as having an interest in the outcome of a process. The interests of some stakeholders may not be benevolent, such as competitors seeking to gain market share. Stakeholder managers should adjust their style in accordance with the stakeholder objectives.

Stakeholders who value CSR may be more likely to support corporate leaders with ties to the community. Jones et al. (2018) proposed that a good stakeholder relationship can strengthen competitive advantage through optimal stakeholder engagement. Customers who pay attention to local sourcing and charitable giving may review CSR when making a purchase decision (Bapuji et al., 2018; Gruber et al., 2017; Min et al., 2017). Managers should research stakeholder priorities to ascertain a strategic direction. Aligning corporate strategic objectives with stakeholder interests could increase alignment between leaders and followers.

Diverse customers may prefer to support companies with culturally diverse business strategies. Business owners in the healthcare industry may benefit from

acknowledging and encouraging diversity to develop patient treatments (Armstrong et al., 2019; Kapiriri & Donya Razavi, 2021). Patients may show more loyalty in a clinical setting when they receive customized treatment plans. Primary care physician business owners may develop more trust with their patients when alternate solutions are available from which the patients may choose.

Some researchers have criticized Freeman's utopian point of view in the FST. Stern (2018) stated the FST does not accommodate realistic business scenarios for leaders who need a resolution to professional management challenges. FST presumes a reliance on stakeholder satisfaction for continued financial and reputational success (Siltaoja & Lahdesmaki, 2015). For example, primary care physician business owners could decide to use profits to reduce costs for patients (FST) or distribute additional funds to other owners (shareholder theory).

The healthcare industry leaders should take into consideration the influence of politics on healthcare regulations. The FST falls somewhere between management and politics to analyze the power of major corporations (Bonnafous-Boucher & Porcher, 2010; Olsen, 2017). Managers have decision-making flexibility under the FST but also have the responsibility to meet stakeholder objectives, not just the shareholders. The healthcare industry companies need to make a profit to continue to provide services to the community. However, medical industry leaders do have opportunities for additional funding from industry programs.

Patients are one category of stakeholders in the healthcare industry. Bonnafous-Boucher and Porcher (2010) found that citizens group themselves into social interest

groups and become stakeholders of the community. The researchers posited that the FST marginally revisits the civil society theory for business. A second correlation is that members of civil society and stakeholder groups assert themselves to pressure on corporate leaders for corporate social responsibility (Bonnafous-Boucher & Porcher, 2010; Oyemomi et al., 2019). Applying the same summary to the healthcare industry, patients may band together to develop better health care options.

Incentive Program Costs

Each primary care physician business owner should understand the costs associated with participation in incentive programs. Casalino et al. (2016) found that physician organizations spent $40,069 per physician for the measurement year 2014 to document and manage incentive program participation. Participation in the P4P align measure perform (AMP) program is voluntary if providers have at least 30 patients in the denominator of the metrics submitted (Integrated Healthcare Association, 2018). However, to increase the number of patient outcomes, meeting the measurement criteria may require additional clinic resources. For this reason, business owners should be cognizant of the return on investment for additional costs to increase outcome percentages.

Primary care physician business owners could decide to include or exclude the costs at their discretion. Costs may include education, technology, treatment, or patient incentive payments (Garner et al., 2018; Sterling, 2017). The healthcare industry needs new approaches to preventive healthcare beyond immunizations as the P4P program moves to a value-based system rather than a reactive measurement of patient care (Dick,

2018; Gwynne & Agha, 2019). Some programs, for example, diabetic care, may need more information disseminated to patients than for preventive procedures, such as screenings for colorectal or breast cancer screenings (Perng & Tang, 2019). Primary care physician business owners should be able to show a return on investment (ROI) for patient care costs.

Primary care physician business owners may have an opportunity to include other specialties to meet the incentive program requirements of patient care. For example, otolaryngologists can participate in the Merit-based Incentive Payment System (MIPS) to increase profitability by demonstrating quality care. However, the otolaryngologists stated the current MIPS program is not specific enough to address their practices (Rathi et al., 2018). Specificity in incentive program measurements, self-selection of metrics, and patient registries can encourage participation (Rathi et al., 2018; Stewart et al., 2017). If clinicians participate in designing the incentive programs, they could be more enthusiastic about the health outcomes.

An example of ROI in the healthcare industry is incentivizing patients to participate in treatment programs. Wammes et al. (2018) found patients with co-morbidities accounted for 68% of healthcare costs. Garner et al. (2018) posited illicit drug use had higher costs associated with it than drug treatment for chronic diseases. The researchers identified patients needing pain treatment for relief from chronic diseases. The results of the study demonstrated a 325% increase in patient participation in legal treatment for a 5% increase in patient care costs (Garner et al., 2018). The results indicated a high ROI for incentivizing patients to accept recommended treatment.

Leaders should design patient incentive programs based on feedback from their stakeholders. Diversification of incentive programs and funding options will engage healthcare patients and physicians (Bigsby et al., 2017; Pandya et al., 2018). Bigsby et al. (2017) analyzed patient support of incentive programs to encourage higher participation in smoking cessation, weight loss, and colon cancer screening programs. Overweight participants and smokers had more positive attitudes toward incentive programs than colon cancer patients.

Incentivizing patients to improve their health can also increase the clinician P4P scores in incentive programs. Cunningham et al. (2017) found contingency management (CM) is an effective approach but not prolific in treatment because of the costs. Van Rossum et al. (2015) confirmed lean strategies are more prevalent in the healthcare industry to help leaders adapt to changes in a regulated environment. The short-term costs may prevent clinicians from implementing patient P4P because the long-term benefits are not apparent. Proponents of CM methods rely on the fact that the costs increase as participant results improve (Cunningham et al., 2017). As patients achieve the initial goals, the bonus incentives may need to increase to encourage continued participation. An example of CM is educating obese patients on the benefits of physical activity and providing rewards each time the patient adheres to the established treatment plan.

Patients may not have the same motivation for P4P rewards. D. M. Williams et al. (2018) studied whether patients would prefer to exercise for their monetary benefit or the benefit of their chosen charity. Each time patients completed a physical activity, they could choose to receive the financial reward or donate the reward to charities (D. M.

Williams et al., 2018). Mental health professionals who incorporated patient participation had more innovative options than instructing patients on their behavior (Khan et al., 2020). The results demonstrated that the P4P program benefitted the patient's long-term health and increased P4P metric results (D. M. Williams et al., 2018). Primary care physician business owners may need to survey patient stakeholders for creative ideas to enhance proactive patient care. The primary care physician business owners are responsible for deciding if incentive payments might mitigate patient care costs.

Incentive payments

Primary care physician business owners would receive incentive payments if the information submitted results in meeting metric thresholds. Incentive payments may vary each year, depending on the modified measurement set and how many participants meet the requirements (Integrated Healthcare Association, 2018). The overarching goal of most P4P incentive programs is to improve patient health outcomes (Diaz et al., 2018). Healthier patients could reduce healthcare costs in the long run, which could increase incentive payments.

Specialty providers also have an opportunity to earn incentive payments, which could benefit patients. For example, The Center for Medicare and Medicaid Services (CMS) leaders created a program to incentivize surgery providers to practice in areas lacking medical professionals. Diaz et al. (2018) identified an increase in surgical procedures in rural areas during the incentive program period of study. The resulting incentive payments could be one strategy to increase patient access to healthcare (Diaz et

al., 2018; Holloway et al., 2017). Surgeons meeting the program criteria could increase their profitability while also helping patients improve their health outcomes.

Pay for performance incentive payments can exist in different categories of the healthcare industry. Ball (2017) compared the prison health system to the health care system of the general population and found incentive payments for healthier inmates contribute to the bottom line of the budget. Mozaffarian et al. (2018) estimated that cardiology incentive programs could save billions of dollars over a 5 year period in cardiovascular disease healthcare costs. Ball and Mozaffarian et al. analyzed incentive payments for health outcomes versus payment for services rendered to patients. To reinvent the measurements of success in the health care system, leaders should review specific case scenarios through the lens of an incentive program (Ball). Analysts can then extrapolate the results from individual cases to the whole system.

Incentive program metrics may vary based on the cultural differences between industry leaders and patient populations. Atchessi et al. (2016) examined the relationship between copay reductions and the use of health care services by the indigent population. Results indicated a slight increase in health service utilization between the impoverished group with waived fees (46.2%) and the nonexempted group (42.1%; Atchessi et al., 2016). Age, gender, and receiving financial support from families were the determining factors for better health care (Atchessi et al., 2016; Baue & Wood, 2015). Lowering the costs for patients may encourage preventive care. Early preventive treatments may decrease the onset of chronic conditions. This scenario could contribute to lower long-term expenditures for patient care. Primary care physician business owners should decide

which incentive program payment recipients, patient or physician, will be the most profitable. Lowering costs for patients may be the best option to increase profitability.

Incentive payments can provide additional revenue for clinical operations. Financial, economic, political, and social sustainability will increase the health of society and provide value to participants in the healthcare industry (Borgonovi et al., 2018). Business owners could use short-term incentive payments to pay for investments in patient health for lower long-term costs. A healthier population contributes to and supports healthy economies (Strang et al., 2017). Incentive payments for smaller healthcare businesses could support business profitability. Incentive payments could make a significant contribution to the profitability of small-scale businesses.

Incentive payments could help sustain medical practices. Dreachslin et al. (2017) examined strategies to provide superior patient care, which is sustainable in a culturally and linguistically diverse population. Recommendations for organizational change included extensive planning of objectives and resource participation, clear communication with leaders and followers, and well-distributed training to encourage ongoing success for diversity initiatives (Dreachslin et al., 2017). Successful implementation and sustainable change require stakeholder agreement and support for full adoption (Scemama et al., 2022). Primary care physician business owners incorporating optional strategies may position themselves to support long-term health benefits for their patients. Strategic positioning may also contribute to long-term profitability with lower patient care costs.

Primary care physician business owners who are not currently receiving

additional revenue due to lack of participation may already be performing the work required to receive incentive payments. Singh (2019) found there were no additional efforts required in the healthcare industry because of the focus on health improvement. If Singh's assumption is accurate, the incentive payments from exceptional patient care could become an additional revenue stream. Health education can support sustainability by including patients in preventive activities (Fischer & Heinrichs, 2018). Clinicians who include patients in the health outcomes could receive higher incentive payments. Additional revenue is available if primary care physician business owners decide to participate in the applicable incentive payment programs.

Payment models vary, and primary care physician business owners should decide among the programs. No one payment model is ideal, but each version could improve by incorporating lessons learned for the participation costs and payments (Ball, 2017; B. Park et al., 2018). Incentive program leaders should analyze results annually to confirm participating clinicians are achieving the target results. Clinicians may have a short amount of time with patients and need a concise treatment review with the patients. Ball (2017) asserted that a complex set of metrics might prevent participation if providers feel the burden is too great to be worth the incentive payment.

Healthcare Incentive Programs

Primary care physician business owners have an opportunity to qualify for and participate in P4P healthcare incentive programs. The goal of P4P incentive programs in healthcare is to influence optimal care for groups of patients associated with conditions such as heart disease or demographic attributes such as gender or age (Auerbach, 2015;

Ryan et al., 2015). Not all medical providers have a patient mix that would qualify for participation. Medical providers with a younger, healthier patient population may not need additional incentives to mitigate the costs of patient care.

The origin of incentive types of programs is the triple aim framework in healthcare. The triple aim model incorporates the guidelines for improving health outcomes, reducing costs, and improving the patient experience (Berwick et al., 2008; Jamison et al., 2021). By addressing health issues proactively with specific patient groups, providers might achieve the three tenets of the triple aim. Primary care physician business owners could benefit financially with lower costs of care by helping their patients stay healthy. In turn, patients may have more motivation to follow medical advice if they experience better health.

Healthcare inequality exists in many forms. Baue and Wood (2015) found leaders do not support sustainability initiatives of the triple aim after the initial incentive payments and disparities are widening. Mainly, base-of-the-pyramid communities, usually defined as the poorest two-thirds of society, do not receive the same benefits as more developed socioeconomic societies (Leslie et al., 2021; United Nations Global Compact, 2015; Varadarajan, 2014). Many resource disparities are because of infrastructure issues that elected officials do not resolve (Varadarajan, 2014). The neglect of infrastructure issues can affect the health of several generations, some without clean water, healthcare, and adequate nutrition. Healthcare incentive programs could bring attention to community disparities and support better healthcare.

Healthcare business leaders may need to measure performance in the healthcare industry outside of patient care. Balanced scorecards present complementary performance perspectives in the areas of financial, customer, internal business, and learning and growth areas (Emami & Doolen, 2015; Quesado et al., 2018). Emami and Doolen (2015) posited that fewer than half of healthcare managers measure the learning and growth quadrant because of the difficulty of the measurement process. Providers participating in healthcare incentive programs may be able to increase the scores in the learning and growth quadrant by expanding services to meet measurement guidelines. Primary care physician business owners are managing a business in the healthcare industry. When they address all four quadrants, the company may be more successful.

Primary care physician business owners have several healthcare incentive programs in which to participate. P4P is a collective term to describe the programs that pay providers to provide or improve the quality and efficiency of patient care (James, 2012). The currently published P4P programs have similar requirements of requiring the use of data from submitted claims and manual submissions but may have different algorithms to calculate performance metrics (Casalino et al., 2016). For example, one program may have different levels of HbA1c for commercial versus senior managed care diabetic patients. The HbA1c lab test measures the average glucose blood levels for the previous month. Regardless of the incentive program measure set, the data source is lab results from patient bloodwork. Healthcare leaders may create incentive programs from different perspectives to achieve specific objectives.

High readmission rates can cause hospitals unnecessary expenses. Swinburne et al. (2017) studied a diversified approach to reducing healthcare costs through better patient nutrition. The authors confirmed poor diet contributes to increased readmission rates and health problems such as high blood pressure, diabetes, obesity, and mental health issues. Swinburne et al. (2017) examined the health benefits of a nutritional incentive program. The results of the study indicated a 45% decrease in body mass index (BMI) from a 69% increase in fruit and vegetable consumption (Swinburne et al., 2017). P4P program designers focused on proactively addressing nutritional aspects of patient healthcare that may reduce hospital readmissions. The results of the study by Swinburne are an example of a low-cost treatment option to support improved patient health outcomes.

Providers should code all patient diagnoses to warrant proper reimbursement for services rendered. For example, if a provider codes a diabetic patient with uncomplicated diabetes, the annual payment from the Centers for Medicare & Medicaid Services (CMS) is $4,990, but CMS will pay $17,580 if providers also document comorbidities of stage IV chronic kidney disease, morbid obesity, depression, and heart disease (Carnavali & Arron, 2017). Appropriate coding plays a significant role in the profitability of healthcare businesses (M. O. Kim et al., 2017). Physicians who carefully code all diagnoses may have higher incentive payments. Many of the healthcare incentive programs use diagnosis codes to qualify patients for specific metrics.

Types. Healthcare incentive programs can fall into three categories: quality, senior population healthcare, and commercial population healthcare. This subsection

includes a description of the evolution of the incentive programs and the reasons the programs are essential to the healthcare industry. The quality payment program (QPP), AMP Medicare Advantage (AMP-MA), and AMP commercial HMO (AMP-HMO) are popular programs. The design and purpose of the three programs follow the incentive program introduction. The last component is the measurement details of the AMP commercial program under review.

Generally, each program has three design elements. The main design elements of a good incentive program are measuring metric performance, achieving financial incentives, and establishing transparency for better consumer engagement in selecting excellent providers (Dick, 2018; Patel, 2018). Primary care physician business owners should review the incentive programs applicable to their practice and understand the requirements before committing to participation. Providers may need to use various communication styles and educational materials specific to each program and the applicable patient population.

The first generation of healthcare incentive program developers focused on reactive treatments. A reactive type of program design originated with the performance or volume-based metrics (CMS, 2018; Mkanta et al., 2016). Providers who treated a certain percentage of patients for a program metric would receive the incentive payment. Providers adhering to a reactive style of a program may have focused more on standard treatments to meet the requirements rather than customized solutions for their patients.

Incentive program designers planned for positive results for the patients. However, patient health outcomes did not improve as expected because the design

focused on reactive treatments (Auerbach, 2015; Mkanta et al., 2016). Auerbach (2015) and Mkanta et al. (2016) found a reactive type of model seemed to reward providers based on patient treatments, not patient outcomes. Responsive procedures are necessary, but proactive treatments may mitigate preventable illness. An example would be administrating low-cost vaccines to avoid high-cost hospitalizations for pneumonia.

The second generation for incentive programs is outcome-based or value-based design. A value-based incentive program consists of measures that may improve patient health outcomes, thus creating value for the incentive dollars paid to providers (Arnold, 2017; Mendelson et al., 2017). For example, to improve the health condition of diabetic patients, a measure to review diabetic patients who consistently adhere to their medication regimen could keep insulin levels in the normal range. In this example, the performance-based program measures if the clinician wrote the insulin prescription. A value-based incentive program measures if patient insulin levels are consistently in the normal range.

The programs reward providers who perform preventive measures to lower long-term health risks (Niederman et al., 2017; Wiley & Matthews, 2017). Several programs have proactive steps to improve patient outcomes. Dick (2018) asserted that measures could be in the categories of structure, process, or patient outcomes. All of the areas should be important to primary care physician business owners who want to build a successful business. Still, improving patient outcomes may be the main focus of healthcare providers. Healthcare incentive programs that measure patient outcomes will be the focus of this study.

Quality Payment Program

The Medicare Access and CHIP Reauthorization Act of 2015 established the requirement for CMS to create incentive programs. The catalyst for the Medicare Access and CHIP Reauthorization Act of 2015 was to encourage physicians to transition from fee-for-service (FFS) reimbursement models to performance or value-based models (Pimperl et al., 2017). Physicians who prefer the FFS payment model may not adjust quickly to the managed care payment model, and the incentive program provides an additional revenue stream. Managed care payment models have a longer measurement period for payments than the FFS model (CMS, 2018). However, a value-based type of program may be a more successful approach to improve patient health conditions.

CMS reimbursement rates may be lower, causing physicians in more populated states to refuse patients with healthcare coverage under the Patient Protection and Affordable Care Act (ACA). Bowling et al. (2018) posited incentive program designers would phase out FFS programs in favor of value-based payment methods. Bowling et al. (2018) found that ACA payments were 34% lower than FFS payments. Lower payments might deter physicians from treating ACA patients in favor of FFS patients. Incentive payments could be a mitigating factor in a physician's decision to treat patients with ACA coverage and encourage a diverse patient mix.

Two options exist under the QPP, which CMS leaders designed as required by law. The two programs are the MIPS and the alternative payment model (APM). The purpose of the QPP was to repeal the sustainable growth rate, which controlled provider reimbursement, and change incentive models (Centers for Medicare & Medicaid

Services, 2019). The sustainable growth rate restricted provider reimbursement to a capped amount approved by Congress and based on the Medicare population with a small increase for inflation (Quality Payment Program, 2018). The new design of payments for value-based outcomes may provide incentives more in line with the goals of primary care physician business owners.

The first participation option is the MIPS program for primary care provider groups. The MIPS program designers combined previous quality programs to streamline the process (Centers for Medicare & Medicaid Services, 2019). The new design of MIPS incorporates quality metrics, improvement activities, promoting interoperability and costs programs (Quality Payment Program, 2020). The sources for the previous quality, promoting interoperability, and costs programs were the Physician Quality Reporting System, Advancing Care Information, and Value-Based Payment Modifier, respectively (Quality Payment Program, 2020). The incentive payment results are a combined score for the four categories. Primary care physician business owners will need to review each of the four categories to understand how to qualify for payments.

The second option for participation in the QPP is the APM. Providers can earn an incentive payment for meeting the APM program payment or patient thresholds (Daniel et al., 2018; Quality Payment Program, 2018). Incentive program target levels can apply to groups, such as an accountable care organization, in which at least 50% of the providers use an electronic health record application (Quality Payment Program, 2018). The APM program consists of several methods of engagement for individual healthcare providers who may or may not be part of an organization. The specialty-focused

incentive programs may provide flexibility for multispecialty groups or individuals to earn additional revenue.

By providing several participation options, clinicians and patients can experience better treatment options. For example, a single orthopedic surgeon has the opportunity to participate in the APM Comprehensive Care for Joint Replacement model. The QPP is an inclusive, expansive program to encourage participation for many types of primary care physician business owners. The QPP designers attempted to offer programs to address the needs of Medicare recipients.

AMP Medicare Advantage

The senior population has a set of preventive measures for their specific healthcare needs. CMS began a 5-star rating program in 2008 that has 30 measures related to clinical procedures, patient experience, and customer service to assist senior patients with the selection of quality health plans and providers (Integrated Healthcare Association, 2019a). Seniors may have more healthcare concerns because of age-related conditions that need to be treated by primary care and specialist physicians (Hazra et al., 2018). Managed care patients may prefer a broad provider selection for their healthcare needs, and the rating system could help them make the best selection.

Healthcare providers may prefer the smaller AMP-MA set of measures. AMP-MA program designers identified 14 clinical measures that are important to seniors with managed care health plan coverage (Integrated Healthcare Association, 2018). The Integrated Healthcare Association leaders developed the AMP-MA incentive program as a management tool to support the CMS Medicare Star rating performance measures

(Integrated Healthcare Association, 2019a). Six health plans that have 80% of the Medicare Advantage membership in California participate in the AMP-MA (Integrated Healthcare Association, 2019a). Health plans may use the ratings to calculate managed care capitation payments to providers. Primary care physician business owners who have a patient mix with mostly senior patients might find the AMP-MA program more applicable than the AMP-HMO measure set.

AMP Commercial HMO program

Measurement year (MY) 2018 measure results from the AMP-HMO will be used for this study. The program was initially the Value Based Pay for Performance program, begun in 2001 (Integrated Healthcare Association, 2019a). The annual modifications are an example of the board members striving to meet the changing healthcare environment so that patients receive appropriate medical care. Even though participation is voluntary, 11 health plans have a combined total of 200 physician organizations, with more than 9 million patients participating in the program (Integrated Healthcare Association, 2019a, 2020a).

The AMP-HMO incentive program in this study consists of four measurement segments. The measurement areas are clinical quality, patient experience, advancing care information, and resource use and total cost of care (Integrated Healthcare Association, 2019a, 2020a). Data applicable to diabetes and preventive care clinical quality category measures will be used for this study. However, an overview of the program will put the clinical standards in perspective as they relate to patient healthcare.

Patient surveys supply the information to calculate the patient experience results. The Patient Assessment Survey tool measures patient ratings for the experience before, during, and after the medical treatment (Integrated Healthcare Association, 2018; Pacific Business Group on Health, 2020). Patient opinions are available to the public. The publication could provide patients with more insight when choosing a healthcare provider.

The Advancing Care Information area of the AMP commercial HMO program relates to the management of electronic patient information. Two measures support healthcare information technology initiatives to collect and report healthcare information electronically (Integrated Healthcare Association, 2019a). The measures are to certify patient medical records are available electronically. When a patient sees different providers, the ease of access to health information supports continuity of care for the patient.

The last segment in the AMP commercial HMO program is resource use and total cost of care measures steps clinicians take to lower costs while providing appropriate treatments. The measures focus on reducing the costs of hospital readmissions, emergency room visits, prescription medications, and the patient's use of services (Auerbach, 2015; Integrated Healthcare Association, 2019a). The measure could be an indication of patient treatments that primary care physicians could perform at a lower cost. Some of the activities are unavoidable and will occur regardless of physician intervention. However, a reduction of the expenses could benefit both the primary care

physician business owners and their patients. Table 2 contains the AMP-MA and AMP_HMO program categories and applicable populations.

Table 2

Integrated Health Association AMP Program

Program	Clinical Quality Measure Categories	Type of Coverage
AMP	Behavioral Health and Substance Use	Commercial
	Cardiovascular	Commercial/Senior
	Diabetes	Commercial/Senior
	Maternity	Commercial
	Musculoskeletal	Senior
	Prevention	Commercial/Senior
	Respiratory	Commercial

Note. Integrated Healthcare Association (2020b).

Advantages

One of the advantages to providers participating in healthcare incentive programs may be the consistency of coding. Programs use standard code sets, such as ICD-10 for diagnoses, CPT, and HCPCS for procedures (Jortberg et al., 2020). Consistent coding allows the providers to document problems and treatments in the same manner regardless of the incentive program. Using the same code sets among healthcare stakeholders may allow ease of communication and data transmission.

Healthcare incentive program designers adjust the measures to the changing health conditions of the population. Program developers modify the metrics regularly to

address population health conditions (Auerbach, 2015). Emerging health conditions, such as the COVID-19 pandemic can create unforeseen health care scenarios. The incentive measures for MY 2020 may need to include telemedicine PCP visits to assess patient health conditions and qualify for face-to-face patient care.

Including different types of healthcare providers may be an advantage. Many of the benchmarking surveys have metrics for medication adherence and unnecessary prescribing, which pharmacists can monitor (Integrated Healthcare Association, 2018; Yoshikawa et al., 2021). Primary care physicians can prescribe oral diabetes or statin medications for diabetic patients. Still, if the patient does not fill the prescription, providers will not earn credit for the activity. Providers may be doing the work to qualify for a specific measure but not receive the appropriate reimbursement for patient care.

Proactive patient care, such as nutritional counseling, may have long-term benefits. Patients engaging in a healthy lifestyle and diet may delay or prevent chronic conditions with cost-effective treatments (Jortberg et al., 2020). For example, one of the newer measures for clinical quality is adolescent nutrition and physical activity counseling (Integrated Healthcare Association, 2019a). Teaching minors about healthy lifestyle habits may reduce the onset of chronic conditions later in life. This type of patient treatment may be a long-term investment by the PCP that will benefit both the patient's health and the cost of patient care.

Medical professionals and clinicians can have input to the programs, which would create a coordinated effort to improve patient care. P4P programs are more effective when physicians contribute and define the quality measures and goals rather than the

models that attempt to control physician behavior (Graefe & Markette, 2021; Waddimba et al., 2019). Physicians treat patients, and incentive program developers who include the participants in the design could have more realistic measures. Incentive program leaders who treat primary care physician business owners as stakeholders in the programs may experience higher participation rates because measures are applicable from the clinicians' view.

Disadvantages

Healthcare providers treat patients who need medical care; however, the providers may wish to control patient appointments**.** P4P programs with incentive payments tied to patient quality of care may cause physicians to avoid treating nonadherent patients (Mantel, 2018). Providers may avoid seeing nonadherent patients to increase their quality scores (K. J. Johnston et al., 2020; Mantel, 2018). If patients do not follow a prescribed treatment plan, the provider may not receive credit for the measure. For example, a physician could write a mammogram referral, but the patient refuses the appointment. The provider took the time to create the referral for the procedure and will not receive credit because the procedure did not occur.

Primary care physician business owners managing the care of patients earn a monthly amount to pay for treatment. Niederman et al. (2017) confirmed providers receive payments for patients enrolled in managed care health plans based on health conditions. Managed care capitation models pay the amount regardless of health outcomes or the cost providers incurred to perform the treatment (Koenecke, 2019; Niederman et al., 2017). There could be potential for unethical providers to avoid

expensive treatment options. If clinicians do not document patient health conditions, such as diabetes, the health plan payments may not be adequate to cover the treatment costs.

Incentive program managers should audit participant submissions for accuracy. P4P programs have the inherent flaw of encouraging fraudulent provider behavior for higher compensation (Dick, 2018). The Department of Managed Health Care conducts audits to certify there is no fraud or abuse by the providers against patients or programs (DHCS, 2019). Checks and balances of submitted claims and patient treatments are necessary for programs to be successful. When physicians submit fraudulent records for reimbursement, they divert funds from legitimate primary care physician business owners.

Primary care physician business owners may choose not to participate in the healthcare incentive programs because of the demanding requirements. Casalino et al. (2016) and Van Rossum et al. (2015) found that some providers will not participate in the incentive programs due to the overwhelming number of measurements for different applications and the costs of completing measure requirements. Healthcare providers may need to address a patient's healthcare concerns with several tasks such as lab orders, prescriptions, or medical procedures. Some physicians may not have the time during an appointment to review the incentive program measure qualifications.

Healthcare providers may not wish to participate in the P4P incentive programs because of the costs. Developing a vision for improvement, fostering healthcare partnerships, enhancing existing infrastructure, leveraging resources, and managing the necessary trade-offs to improve benchmark adherence could mitigate participation cost

concerns (Lee et al., 2019). When clinicians feel supported, they may be more apt to participate. An increase in participation might start the cycle of incentive payments if providers have assistance in meeting program requirements.

Some providers may not see the expected results from the medical care provided to patients. There is no evidence that P4P programs significantly improved the quality of patient care (Papanicolas et al., 2017; Ryan et al., 2017). Providers using that reasoning may be the catalyst for changing the incentive programs from reactive treatments to preventive measures. Primary care physician business owners may find it more economical to invest in proactive activities, such as influenza immunizations, rather than incur the costs of patient hospitalization.

Transition

Section 1 contained the business problem of this study and the approach to analyze the effect of participation in P4P incentive programs on profitability. FST was used as the lens with which to view the problem. In the academic literature review, I presented the literature search strategy and the application of this information to the applied business problem. This section also contained the FST as well as complementary and conflicting theories. Lastly, I described the study variables and healthcare incentive programs.

Section 2 will include a description of the role of the researcher and the importance of bias mitigation to make certain the study results were reliable and valid. This section will also contain the participant attributes which qualified primary care physician business owners for this study. The selected methodology and design will be

discussed, as will the reasons why a quantitative design and a correlational method were appropriate. The data collection and analysis techniques appropriate for this study will be presented. Section 3 will contain the findings and a detailed analysis of the data. Section 3 will also include application to professional practice, implications for social change, recommendations for action and further research, reflections, and conclusion.

Section 2: The Project

Understanding the relationship between incentive program costs, incentive payments, and profitability is important to primary care physician business owners when considering whether to participate in P4P incentive programs. In this study, I identified the correlation between tenets of the stakeholder theory in relationship to P4P incentive program participation. Knowing the correlation between the variables and the stakeholders could help MG owners develop strategies to increase profitability while mitigating the costs of patient care.

In Section 2, I define the research method and design for the study. I will describe the participants and the qualifications to participate. I will discuss the ethical considerations for using healthcare industry data that could have impacted the study. I conclude Section 2 with the data collection and analysis process, as well as the reliability and validity of the appropriate instruments for this study.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between incentive program costs, incentive payments, and profitability. The targeted population consisted of managed-care commercial health plan patients between the ages of 18 and 65 in the Inland Empire region of southern California. The independent variables were incentive program costs and incentive payments. The dependent variable was profitability. The implications for social change included the potential for expanded patient services and increased patient care opportunities to create a healthier society.

Role of the Researcher

The role of the quantitative researcher is to analyze data results using objective statistical methods (Saunders et al., 2015). Researchers should be aware of any bias in the data collection process and ensure the data is complete and accurate (Bossuyt & Van Kenhove, 2018; Burgess et al., 2019). Research bias can appear in many forms (Beals et al., 2018; Burgess et al., 2019). Challenges to researcher bias could be the topic, the method, or the participants. I collect and submit the data necessary for healthcare incentive programs on behalf of my employer's clients and analyze the program results for ways to improve quality metric scores.

The researcher is responsible for recording and analyzing data to produce reliable results (Ashour, 2018). The role of the researcher is to understand controlling the research plan and to adhere to the institutional review board (IRB)-approved plan (Melbøe, 2018). I obtained permission from my employer to use secondary data. Y. H. Kim and Henderson (2015) found that using secondary data will reduce unintentional research bias, which may have resulted from my relationship with the topic or participants.

It was rare for me to have any interaction with participating clients during business activities. Researchers can experience the need to balance integrity and data gathering techniques (Ashour, 2018; Burgess et al., 2019). I retrieved the data elements from the governing body's website for the incentive programs. The results of the file submissions were available on the same website. LeCroix et al. (2017) suggested the

researcher should remain objective even if they are qualified to extend the relationship with the participants because of previous experience.

The Belmont Report established the principles of respect for persons, beneficence, and justice for researchers to help ensure ethical treatment of study participants (The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). The participants in this study were data from primary care physician business owners; there was no contact with patients. I used de-identified patient treatment data and adhered to the first principle of *The Belmont Report* by ensuring all patient information remained confidential. Secondly, I demonstrated beneficence by explaining the potential patient benefits if primary care physician business owners participated in the incentive programs. The third principle of justice applied to all patients of the primary care physician business owners who could have benefitted from the additional treatment required by the incentive programs.

Participants

The participants for this study were de-identified diagnosis and treatment data from primary care physician business owners from the Inland Empire region of southern California. The data was from completed appointments between January 1, 2018, and December 31, 2018. The 2018 measurement year is the most recent year available for incentive program results (Integrated Healthcare Association, 2019a). The demographic elements used in the incentive program submission are age, gender, dates of service, provider specialty, ICD-10 codes, and CPT codes (Integrated Healthcare Association,

2019a). Some measures, such as hypertension and colon cancer screenings, are not gender-dependent (Quality Payment Program, 2018).

California law mandates physicians must own patient medical records so that business entities will not interfere with treatment decisions (Milken Institute School of Public Health, 2012). For this reason, the primary care physician business owners provided authorization to use de-identified patient data. Researchers can mitigate ethical risks by using secondary data (Cornelissen, 2016). Because I analyzed secondary data from physicians who participated in incentive programs and did not participate in incentive programs, the physician organizations were categorized into two groups for comparison. The first group of business owners participated in a P4P incentive program and were eligible for incentive payments earned from the data submissions. The second group of participants did not participate in the P4P incentive programs.

Research Method and Design

Selecting the appropriate method for a study is an important decision for the researcher. The methods to conduct studies are qualitative, quantitative, and mixed method (McCusker & Gunaydin, 2015). Park and Park (2016) suggested the researcher should select a quantitative methodology to evaluate the relationship between a dependent, measurable variable and the independent variables, which applied to this study. Therefore, I selected the quantitative method and correlational design for the research.

Research Method

For this study, I selected a quantitative method. Quantitative methodology is appropriate when a researcher analyzes numerical data or survey results (Goertzen, 2017; Saunders et al., 2015). The relationship between incentive program costs, incentive payments, and profitability variables was examined. Quantitative researchers remain detached from the information for objective analysis, and qualitative researchers engage the problem and seek to comprehend the problem (Firestone, 1987). The researcher can structure the interview questions to discover and identify the intersectionality experience of the participants and the variables (Windsong, 2018). The data results of the incentive program submissions were used to compare the performance results of the participants. Therefore, a quantitative methodology was appropriate for my study.

The second method I considered was qualitative. The qualitative method is appropriate when researchers use observation and interpretation to define new knowledge (Blaikie, 2018; Rahi, 2017). Yin (2018) stated the qualitative method is appropriate to test an established theory. Qualitative researchers can take advantage of the approach by utilizing interviews to expand their understanding of the relationship between the variables. The qualitative methodology is appropriate when the researcher is discovering the reason for a problem instead of expanding current analyses.

The study was in the healthcare industry, and a qualitative study could have encompassed protected health information discovered during an interview. Park and Park (2016) recommended the qualitative method for the discovery of a phenomenon and the quantitative method for research justification. The qualitative method is subjective

observation or interaction, while the quantitative is objective, usually structured, and impersonal. The results of this study include an analysis of objective data elements and not interpretations of subjective observation. Observing business operations or interpreting survey responses was not performed for data gathering purposes; therefore, the qualitative method was not appropriate for this study.

The mixed-method approach is the third option I considered for the study. Saunders et al. (2015) stated the mixed-method process combines data collection techniques from quantitative and qualitative methods combined with analytical analysis. For example, the researcher could use a qualitative interview to solicit answers and categorize the text with numerical values. Saunders et al. (2015) listed mixed methods as an option for a pragmatic philosophical approach. The philosophy combines objectivism and subjectivism, which describes quantitative and qualitative methodologies (Saunders et al., 2015). Aggregated data that incentive program analysts publish annually were analyzed in this study; interviews were not conducted. Only the results of participation in incentive programs were reviewed for this study, not the reasons for participation.

Researchers should apply the mixed-method approach when attempting to understand the impetus and results of a decision (Mabila, 2017). Researchers collect and analyze quantitative data first and then seek to understand the qualitative aspect of the findings in a mixed-method study (Alavi et al., 2018). Because my research question could not be answered with qualitative research, the mixed-method approach was not appropriate for this study.

Research Design

I selected a correlational design for the study. There are three research designs available to researchers developing a quantitative study. The three methods are correlational, experimental, and quasi-experimental (Wells et al., 2015). Researchers can use the correlational design to examine the relationship between independent and dependent variables (Saunders et al., 2015). Because this study was an examination of the relationship between incentive program costs, incentive payments, and profitability, the correlational design was appropriate.

Experimental and quasi-experimental designs were other options for consideration. Wells et al. (2015) suggested researchers should use an experimental design when conducting a quantitative study with continuous participant observations. Participant behavior and interactions were not observed to gather data for this study; rather, data from MG financial and treatment records and data from regulatory agencies were correlated for this study. Therefore, the experimental design was not appropriate.

Quasi-experimental was the third design available for this study. Becker et al. (2017) explained that the quasi-experimental design is appropriate when researchers are examining a cause-and-effect relationship between variables by manipulating the variable values. The variable values in this study did not change because the aim of this study was to examine the relationship between two independent variables and one dependent variable.

Population and Sampling

Participation in P4P healthcare incentive programs is voluntary. For this reason, primary care physician business owners who choose to participate and those who do not participate were selected. The Integrated Healthcare Association committee members defined each measure set with specific requirements; however, there are two general exclusions for the overall population qualifications. Exclusions apply to patients in the denominator if they received hospice care at any time during the measurement year or have a disqualifying condition (Integrated Healthcare Association, 2018). For example, a patient would be excluded from the breast cancer screening measure if the individual received a double mastectomy.

Population

The population for this study was managed-care commercial health plan patients between the ages of 18 and 65. The patient's PCP may or may not have participated in the AMP commercial incentive program. Additionally, not all health plans participated in the AMP commercial incentive program. The population had healthcare coverage in 2018 with a participating health plan. For comparison, the population was split into two groups. The first group contained patients having a PCP who participated in the AMP commercial incentive program. The second group comprised patients with the same type of managed-care commercial coverage but whose PCP did not participate in the AMP commercial incentive program. To be included in a measure for any P4P incentive program, patients had a specific demographic attribute or health condition that qualified the patient for the submitted measurement category (Integrated Healthcare Association,

2018). All PCPs met the minimum requirement of 30 qualifying patients in a measure for participation in the P4P incentive programs.

To obtain meaningful results, an adequate number of patients had a specific medical condition or demographic qualifier to be statistically significant for the quality measure. For example, to submit data for the colorectal cancer screening measurement, a PCP must have at least 30 patients who are over 51 years old as of December 31 of the measurement year, or patients must have a diagnosis of diabetes to qualify for the Controlled Diabetes measure (Integrated Healthcare Association, 2020a). Primary care physicians are eligible to participate in AMP commercial incentive program. Patients seen only by specialist providers were not in the population of this study because specialist providers do not perform the procedures that qualify patients for the P4P incentive program measurement numerators.

Sampling

Quantitative researchers should obtain an appropriate sampling type and size to safeguard the validity of the results. Nonprobabilistic purposive sampling was used for this study to help ensure data contains specific criteria related to this study (see Bryman, 2012; Serra et al., 2018). Those purposively sampled for this study were from de-identified patient records having demographics or diagnoses which qualified for submission to the P4P incentive program. For this specific qualification, probabilistic or random sampling of data was not appropriate for the study.

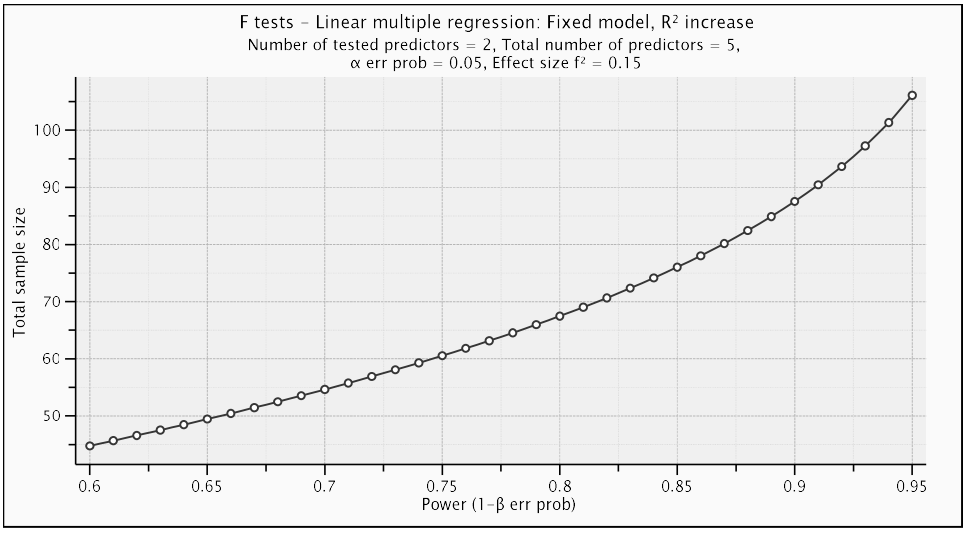
Other appropriate nonprobabilistic sampling typologies are convenience and snowball. A researcher using a convenience sampling procedure uses data currently at his

or her disposal, which meets the criteria of the study (Emerson, 2016). I considered using convenience sampling because of work-related access to appropriate data. However, to measure specific criteria, the purposive technique was more suitable. When a researcher needs criteria with conditions that are related or a subset that results from the primary condition, the snowball typology is appropriate (Emerson, 2016). Some P4P incentive measures employ related conditions (Integrated Healthcare Association, 2018); however, for this study, only those measures with a distinct diagnosis were included. For that reason, the snowball typology was not as applicable as the purposive typology.

Researchers should obtain an appropriate sample size to help ensure the validity of the study results. A power analysis using G*Power 3.1.9.4 software was conducted to determine the proper sample size for the study. An a priori power analysis, assuming a medium effect size ($f^2 = .15$), $\alpha = .05$, and two predictor variables, identified that a minimum sample size of 68 participants was required to achieve a power of .80 (see Figure 1).

Figure 1

Power as a Function of Sample Size



Ethical Research

The data for the study was de-identified patient information sourced from primary care physician business owners, including procedures and health conditions that qualified for predefined measures in an incentive program. Health plan contracts and incentive program parameters offered by health plans and regulatory agencies in California were reviewed for incentive payment levels. Research ethics exist to avoid harming participants, ensure excellent research practice, and risk mitigation (Saunders et al., 2015). The secondary data for the study was available through access to clients, internal contracts, and external vendors in California. The risk of harming participants in this study was very low, and the risk of revealing confidential contract information was minimal. To safeguard participant confidentiality is protected, the published dissertation will include Walden's IRB approval number 06-02-21-0762917. The IRB members provided the approval number, which demonstrates compliance with informed consent

and ethical consideration regulations (see Cugini, 2015). Additionally, the data will be retained in a secured location for 5 years from the official completion date of the study. After the holding period of 5 years, the data will be permanently deleted from the data retention files.

Data Collection Instruments

The study involved measuring the variables of incentive program costs, incentive payments, and profitability to understand the relationship between the independent and dependent variables. Reddy et al. (2017) stated that the three stages of data collection are acquisition, preprocessing, and integration. First, the costs each primary care physician business owner incurred to participate in the incentive programs will be collected via secondary financial data. For the primary care physician business owners who did not participate in the incentive programs, I reviewed the costs for similarities. Second, the appropriate patient data was collected from the practice management applications to determine if providers were performing the treatments necessary to qualify for the incentive payments. Third, the potential incentive payments for participating in the healthcare incentive programs were reviewed. The ROI of costs compared to incentive payments received was examined to determine if incentive payments were greater than the costs incurred by the participants.

Independent Variables

The first predictor variable was the incentive program costs. Costs are not a psychological construct, so using an existing instrument was not appropriate. Kjell et al.

(2019) stated that psychological constructs are appropriate to use when measuring emotions, thoughts, or attitudes. Financial data was used for this variable.

For the incentive program participation costs, each primary care physician business owner identified the costs of each process they followed to participate in the incentive programs. For the participants who chose not to participate in incentive programs, I reviewed their costs for the same type of expenses. For example, participants might have incurred the costs of a mail campaign to patients, but the campaign may not have been for the purpose of incentive program participation.

The second predictor variable was incentive payments. Published information from the participating health plans on the requirements of each program and the associated levels of payment to participants was used to understand each program. After reviewing the incentive payment programs for commonality, I identified the measures to include in the study.

The information for the independent variables was ratio data and was appropriate for quantitative studies (Cay et al., 2015; Matias, 2018). Aquino et al. (2018) proposed that descriptive survey questions such as *how much* are appropriate for quantitative studies. Because there is no existing survey instrument to measure healthcare incentive program costs or payments, no published reliability or validity information is available.

Dependent Variable

To measure the effect incentive program participation has on profitability, the cost-to-payment ratio for the incentive programs was calculated. The ratio was calculated as cost/payment, resulting in the percent spent on incentive programs compared to the

incentive payments. Profitability measures are integral to analyzing a company's performance (Margaretha & Supartika, 2016). The cost-to-payment ratio was derived using the information gathered for the independent variables. The percent of net revenue the payments represent was also calculated. The source for the information was data gathered from the practice management application. I used SPSS software to calculate the cost-to-payment ratio and the percentage of net revenue the payments represent.

Data Collection Technique

MG physician business owners or IPA physician owners were solicited for participation in this study by contacting them via email and a follow-up letter. Each participant was provided with an explanation for permission to use de-identified patient data. The participants were also provided with an explanation of why the data elements were appropriate for this study. The practice management application held demographic data about each medical group, such as the number of physicians, physician specialties, and the number of commercial HMO patients eligible for a P4P incentive program. Pires et al. (2016) found that the data collection step of the process can be the most time-consuming and costly for researchers.

The primary care physician business owners were asked to provide de-identified demographic and diagnosis data that qualified patients for the incentive program measure denominators. The primary care physician business owners were also asked to provide the procedures PCPs performed for the qualified patients, which met the numerator requirements for incentive program measures. The first source was de-identified clinical

data from each participant's electronic medical record (EMR) software. Each participant granted permission for me to extract the data.

If granting personal access to extract the requested data from each client's EMR was not possible, I would have provided the participants with a data template to use for extractions. Using a template would have helped to ensure the data files were in the same format, and the data files would import into a database for analysis. A disadvantage of using EMR data is missing components within the patient records with no valid process to impute the information (M. O. Kim et al., 2015; Stiglic et al., 2017). However, Stiglic et al. (2017) found the advantages of using the data in an EMR system were consistency and the reduction of data anomalies. The patient demographic, diagnosis, and procedure data were gathered to analyze if clinicians were performing the procedures which qualified for the healthcare incentive programs.

The second data source was the quality program management software used by participants to submit data to the healthcare incentive programs. I used the software to identify if the procedures performed met the objectives of the healthcare incentive program, regardless of whether or not to participate in the program. For example, to qualify for diabetic measurements, two diagnoses of diabetes must be in the patient chart for the measurement year (CMS, 2018). Nonparticipating primary care physician business owners may only diagnose diabetic patients once a year.

The third source of data was the data set for healthcare incentive programs. The aggregated data were available on a government public website. These data sets are available after the incentive program manager calculates each measure result from data

submitted by primary care physician business owners. An advantage of a public database is the ease of data access by the researcher. When using a public database for information, it is essential to review the algorithms to avoid misclassification and ensure data validity (Zarrinpar et al., 2020). I used the aggregated set of data to calculate the program data analysis for comparison to the study participants.

Data Analysis

The research question that will guide this study was: What is the relationship between incentive program costs, incentive payments, and profitability?

I tested the following hypotheses:

$H_0$1: There is no statistically significant relationship between incentive program costs, incentive payments, and profitability.

$H_1$1: There is a statistically significant relationship between incentive program costs, incentive payments, and profitability.

The invocation of multiple regression analysis served to explore the relationship between the dependent and independent variables using SPSS software. The SPSS software output helped to categorize the descriptive statistics for the mean and standard deviation of the data distribution. Researchers use multiple linear regression analysis to evaluate the correlation between two independent variables and one dependent variable (Chen et al., 2016; Plonsky & Oswald, 2017). The bivariate correlation, or Pearson's correlation coefficient, was not appropriate for this study because it involves only one predictor and one independent variable. The multiple linear regression analysis was

appropriate for the research because the study involved an evaluation of the relationship between two predictors (independent variables) and one dependent variable.

Multiple linear regression analysis involved testing normality, linearity, multicollinearity, and homoscedasticity. Saunders et al. (2015) stated all four validity test results must be appropriate to avoid a Type I or Type II error. Matias (2018) specified that testing the data distribution for normality will indicate the validity of the sampled data. The results of a linearity test will indicate to what degree a change in the dependent variable will affect a change in the predictor variable (Saunders et al., 2015). Multicollinearity testing will provide to what degree the variables are linearly related (Matias, 2018). Testing for homoscedasticity of the variables will denote the equal variances in the data (Saunders et al., 2015).

The data analysis was conducted with several assumptions that were tested to help ensure the results were valid. The assumptions were measurement error, normality, linearity, multicollinearity, and homoscedasticity (S. Kim et al., 2015). Measurement errors were mitigated using Cronbach's alpha test to ensure internal consistency and scale reliability. A normal distribution is important to confirm the researcher sampled data appropriately (Matias, 2018). Histograms were created to visually inspect the distribution. The third assumption of linearity indicates the appropriate type of relationship exists between the variables (Matias, 2018). A scatter plot of the data was created to determine the relationship. A linear relationship existed, so bootstrapping techniques did not need to be employed to examine possible assumption violations. An analysis of the scatterplot also protected research results against a violation of

homoscedasticity (Matias, 2018). I mitigated the assumption of multicollinearity by using a normal probability plot.

Researchers producing quantitative studies must understand the scales of measurement to warrant the appropriate application. Scales of measurement provide a basis for identifying and categorizing variables (Brunsdon, 2018; Matias, 2018). The four types are nominal, ordinal, interval, and ratio. The level of analytical opportunities increases with each level. The nominal variable is the least analytical option, and the ratio variable type allows for the most analytical possibilities (Matias, 2018).

The variables for this study were nominal, ordinal, and ratio data. The patient characteristic categories were nominal data. For example, some measurements, such as breast cancer prevention, require females receive a screening once a year to qualify for the numerator (Integrated Healthcare Association, 2018). While males can have a diagnosis of breast cancer (Mayo Clinic, 2020), only females qualify for the denominator. The gender of male or female was nominal data.

The responses to the Likert-type scale elements used in the participant surveys will generate ordinal data to summarize the range of answers. It is not appropriate for a researcher to assume the value for an ordinal scaled response is the same for every respondent. For example, the Likert-type scale may be used to obtain a response such as "most likely." The respondents' selection might correspond to a value of 4.0, but the answers could be between the range of 3.8 and 4.2; therefore, calculating the difference between the two responses may not be appropriate.

The ratio data for this study are the patient counts for the numerators and denominators for each measurement. Matias (2018) posited that ratio measurements include data from nominal and ordinal scales. Using the same breast cancer prevention example, the number of females who qualified for the denominator and how many female patients received the screening can be measured. To determine a measurement ratio, the number of patients who received the screening was divided by the number of patients who should have received the screening. The data from participant EMRs and public websites were ratio data. Researchers can perform the most sophisticated statistical analysis with ratio data (Saunders et al., 2015). The complexity is possible because all mathematical calculations, such as division and multiplication, are available with ratio data.

Researchers need to synthesize data coming from disparate sources for analysis. The process involved data scrubbing to normalize the data points into a data set appropriate for analysis (Birtwhistle & Williamson, 2015). The de-identified records from the EMRs did not have missing data. Therefore, the option in SPSS to exclude records that do not have the expected elements was not used. Imputing missing data was not an appropriate option for this study. Survey respondents hold the power of information, and the researcher regains power during the data analysis stage (Anyan, 2013). Only existing data sets that were appropriate for submission to the healthcare incentive programs were examined.

Study Validity

Researchers should consider threats to the study validity and mitigate those threats as much as possible. The most basic definition of a valid, reliable study is one for which the researcher uses multiple methods to verify results and designs the study so that replication can occur (Matias, 2018; Saunders et al., 2015). P. Johnston et al. (2018) demonstrated extending psychometric measures with reliability estimates to increase validity. Triangulation is also a reliable method to verify study results with a separate source of information (Saunders et al., 2015). The results of this study may influence primary care business owners on their decision to participate or not participate in healthcare incentive programs. By ensuring a valid study, business leaders will receive accurate information upon which they can make decisions.

Internal Validity

Because this was a quantitative study, the threats to consider were internal validity and external validity. Internal validity is an indicator of cause-and-effect relationships resulting from the data analysis (Borntrager et al., 2015; Dalal & Carter, 2015). Three threats to internal validity are conditional, analytical, and instrumentation (Torre & Picho, 2016). A researcher should be cognizant of a conditional threat when the historical and natural evolution of the environment affects the study conditions (Torre & Picho, 2016). The internal threat of analytical errors occurs when outlying statistical points drive the analysis (Torre & Picho, 2016). The loss of participants, testing inconsistency, or the incorrect instrument application constitute instrumentation threats. L. D. Williams and Aber (2015) suggested researchers should use an internal validity

review when using observed covariation to correlate a cause-and-effect relationship. The study was a correlational study that was not subject to internal validity because the study was not to determine a cause-and-effect relationship of the variables.

External Validity

External threats to study validity included instrument reliability, data assumptions, and sample size (Dialsingh et al., 2015; Lu & Qiao, 2016; Torre & Picho, 2016). Unknown factors affecting results, which the researcher does not recognize, will threaten the validity of the instrument results (Trani et al., 2015). Researchers can make data assumption errors when results do not apply to different environments (Almeida et al., 2015; Trani et al., 2015). An incorrect sample size, either too large or too small, can skew the study results (Matias, 2018). A biased sample of participants can also skew the results because the sample size is not sufficient for a correct inference (Kouvelioti & Vagenas, 2015). Implementing the G*Power 3.1.9.4 software ensured a statistically appropriate sample size.

A researcher can use external validity as an indicator of feasibility for a more extensive study (Kreps & Roblin, 2019; Stuart et al., 2015). SPSS statistical software was used to help ensure the external validity of this study. Graphical representations of the data provided a visual demonstration of the results. The numerical and visual presentation provided a foundation for the propagation of the results to a larger population.

Threats to Statistical Conclusion Validity

Statistical conclusion validity represents the imperative to accurately assess the relationship strength between the independent and dependent variables (Moquin &

Wakefield, 2016). Threats to statistical conclusion validity are Type I and Type II errors (Lu & Qiao, 2016). In statistical analysis, a Type I error indicates a relationship between the variables which does not exist (Lawman et al., 2015). If a researcher does not properly mitigate a Type I error, the null hypothesis may be rejected and invalidate the study results.

Conversely, a Type II error occurs with the acceptance of a false null hypothesis (Pericchi & Pereira, 2016). Researchers may draw incorrect conclusions if participants do not provide appropriate answers or complete data sets for statistical analysis (Cheung et al., 2017). Incorporation of the triangulation of data will mitigate threats to statistical conclusion validity.

Transition and Summary

Section 2 contained the process to conduct a study of the relationship between incentive program costs, incentive payments, and profitability. This section included the role of the researcher and the importance of bias mitigation to help ensure the study results are reliable and valid. This section also included the attributes that qualify primary care physician business owners for this study. Section 2 contained the study methodology and design and why a quantitative correlational design was appropriate. Section 2 included the reasons for selecting nonprobabilistic purposive sampling to obtain the data and provided a description of the process to determine the appropriate sample size using G*Power software. This section also included the importance of ethical research and the protection of participant data. The definition of the data collection instrument and technique, including the analysis techniques appropriate for this study, were presented.

Finally, I identified the importance of reliability and validity. Section 3 will contain the findings and a detailed analysis of the data. Section 3 will also include application to professional practice, implications for social change, recommendations for action and further research, reflections, and conclusion.

Section 3: Application to Professional Practice and Implications for Change

The purpose of this quantitative correlational study was to examine the relationship between incentive program costs, incentive payments, and profitability. The independent variables were incentive program costs and incentive payments. The dependent variable was profitability. The null hypothesis was rejected, and the alternative hypothesis was accepted. Incentive program costs and incentive payments significantly predicted profitability.

To collect data, I contacted primary care physician business owners through my professional network. The minimum sample size was calculated using the G*Power program and determined to be 68. A total of 73 primary care physician business owners participated in the study. The medical directors of each primary care physician-owned business granted permission to obtain secondary de-identified patient diagnosis and visit data, the amount of incentive costs, and the sum of incentive payments received for MY 2018. I used publicly available AMP commercial incentive program measure information and aggregated data results.

Results from the regression analysis, $F(2,70) = 1343.6$, $p = <.001$, $R^2 = .975$ indicated a significant relationship exists between incentive program costs, incentive payments, and profitability. Interpretation of the results suggests primary care physician business owners who actively engage in the P4P incentive programs are more likely to receive a profitable return related to the incentive program costs.

Presentation of the Findings

I employed a quantitative correlational design implemented with standard multiple regression data analysis features available in the IBM SPSS application for my study. Multiple linear regression is a powerful, flexible analysis model which uses two or more predictor variables to estimate the criterion variable (Acikkar & Sivrikaya, 2018). I examined the relationship between incentive program costs, incentive payments, and profitability. The data collection process entailed extracting de-identified patient data to determine eligibility in the P4P incentive program. The practice management application held demographic data about each medical group, such as physician groups, physician specialties, and the number of commercial HMO patients eligible for a P4P incentive program assigned to each provider. The quality management application held the P4P incentive scores. I used this information to determine participation levels for each provider. I obtained the incentive payment information from the financial application used to process incentive payments. The data collected from the three applications represented the information required to examine the hypotheses and determine if a significant relationship existed between incentive program costs, incentive payments, and profitability.

Descriptive Statistics

A total of 73 primary care physician business owners participated in the study. Interpretation of the results indicated no significant violations of multicollinearity, normality, linearity, homoscedasticity, or independence of residuals. Table 3 depicts descriptive statistics for the study variables.

Table 3

Means and Standard Deviations for Study Variables

Variable	*M*	*SD*
Incentive Program Costs	2.89	1.704
Incentive payments	4.19	2.654
Profitability	4.03	2.494

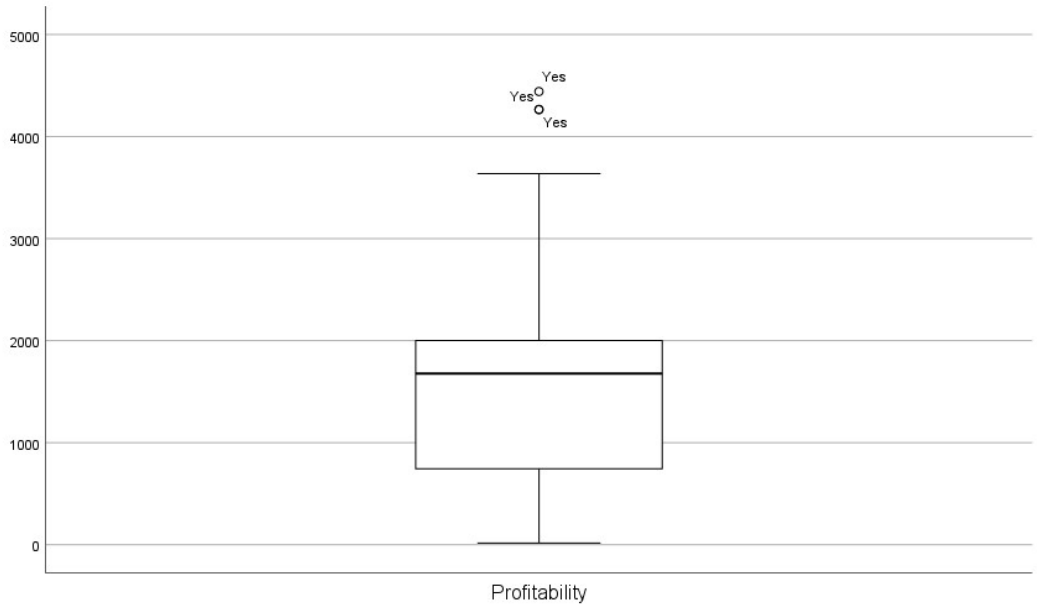
Note. $N = 73$.

Outliers

The boxplot in Figure 2 represents the distribution of profitability with the median amount of $1,677, represented by the line, and a mean of $1,568. The area above and below the line within the box represents the profits for most of the providers. The extended lines represent the upper and lower limit of the data. The boxplot displays three outliers above the upper limit. These represent the highest profitability achieved by participating providers.

Figure 2

Boxplot of Profitability Values



Histograms of Variables

The histograms in Figure 3 demonstrate the frequency of incentive program costs each provider incurred during MY2018. The nonparticipating providers spent between $5 and $40 during the year communicating with patients having commercial HMO health plans. The participating providers spent between $40 and $60 to communicate with patients with commercial HMO health plans and qualify for the P4P incentive program.

Figure 4 illustrates incentive payments providers received from health plans for nonparticipating and participating providers. The nonparticipating providers did receive less than $900 for their patients who received their annual wellness visits. However, the participating providers received at least $1,500, with a few earning more than $4000.

The dependent variable of profitability histogram, shown in Figure 5, demonstrates higher profitability for the participating providers. The distribution is comparable to the payment histogram. The distribution of the cost histogram for nonparticipating providers compared to the profitability histogram indicates the incentive payments may not cover the costs.

Figure 3

Histogram for Independent Variable Incentive Program Costs

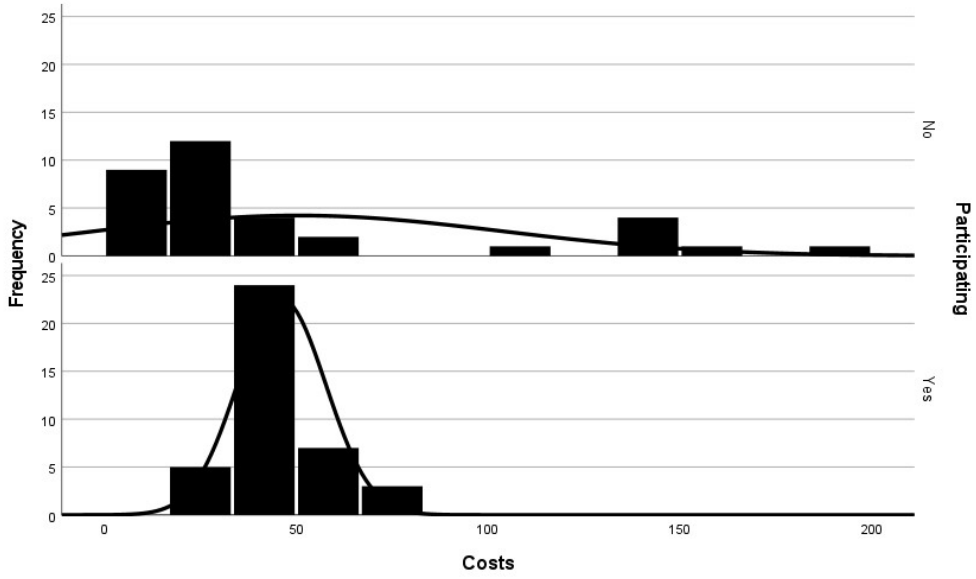


Figure 4

Histogram of Independent Variable Incentive payments

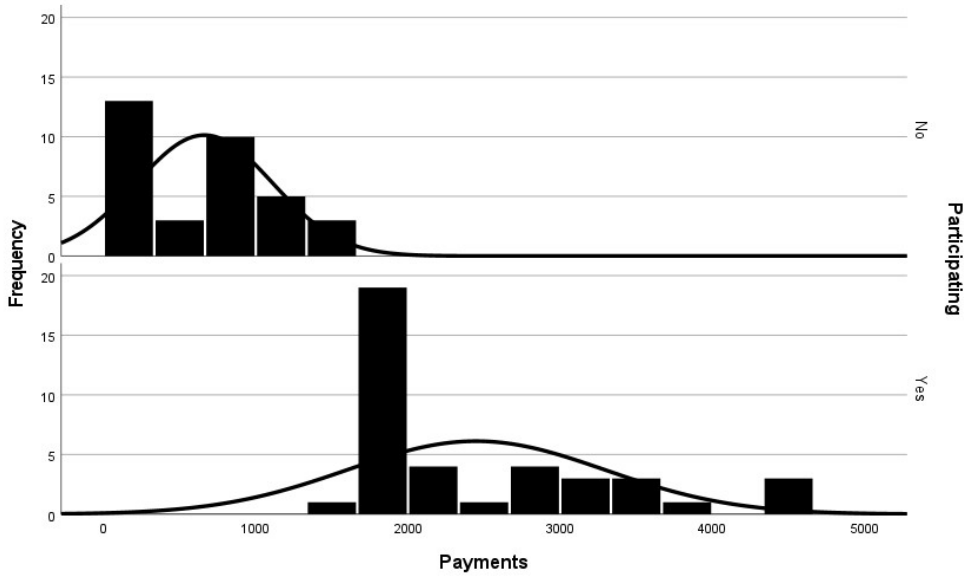
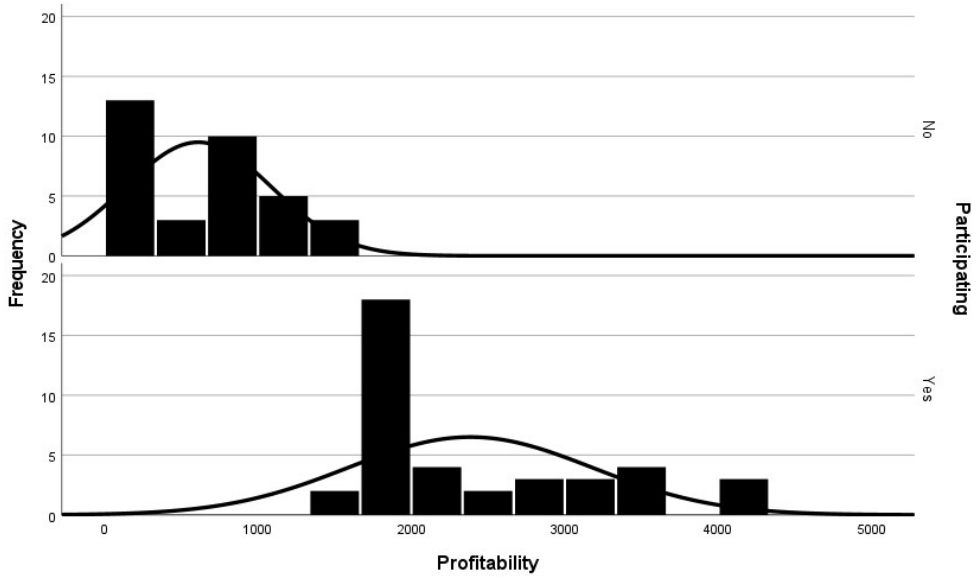


Figure 5

Histogram of Dependent Variable Profitability



Tests of Assumptions

I categorized the data into 10 levels to stratify the disparate scales. Table 4 lists the algorithm for the categorization. I applied the scales below to evaluate the assumptions of multicollinearity, normality, linearity, homoscedasticity, and independence of residuals.

Table 4

Variable Categorization Scale

Category	Cost Scale	Payment Scale	Profitability Scale
1	0 – 20	0 - 450	0 - 450
2	21 - 40	451 - 900	451 - 900
3	41 - 60	901 - 1350	901 - 1350
4	61 - 80	1351 - 1800	1351 - 1800
5	81 - 100	1801 - 2250	1801 - 2250
6	101 - 120	2251 - 2700	2251 - 2700
7	121 - 140	2701 - 3150	2701 - 3150
8	141 - 160	3151 - 3600	3151 - 3600
9	161 - 180	3601 - 4050	3601 - 4050
10	181 - 200	4051 - 4500	4051 - 4500

Correlation Analysis

I evaluated multicollinearity by viewing the correlation coefficients among the predictor variables. The bivariate correlation between incentive program costs and

incentive payments was .008 (see Table 5), indicating a negligible relationship. Therefore, the violation of the assumption of multicollinearity was not evident.

The magnitude of linear association between the independent and dependent variables was determined using a correlation of coefficient analysis. The correlation between incentive program costs and profitability demonstrated a weak relationship of .007 and was significant at $p < .001$. A strong, significant correlation of .987 and $p < .001$ existed between incentive payments and profitability. Table 5 displays the correlation coefficients.

Table 5

Correlation Coefficients Among Study Predictor Variables

Variable	Costs	Payments	Profitability
Costs	1.00	.008	.007
Payments	.008	1.00	.987
Profitability	.007	.987	1.00

Note. $N = 73$.

Inferential Statistics

I tested for normality using Q-Q plots for the groups of participating primary care physician business owners and nonparticipating primary care physician business owners. Figures 6 and 7 demonstrate normal distribution for nonparticipating and participating primary care physician business owners. I also used a P-P plot and a histogram to demonstrate normality for regression standardized residuals. Figure 8 displays the P-P results. Figure 9 displays the histogram.

Figure 6

Normality Plot for Nonparticipating Providers

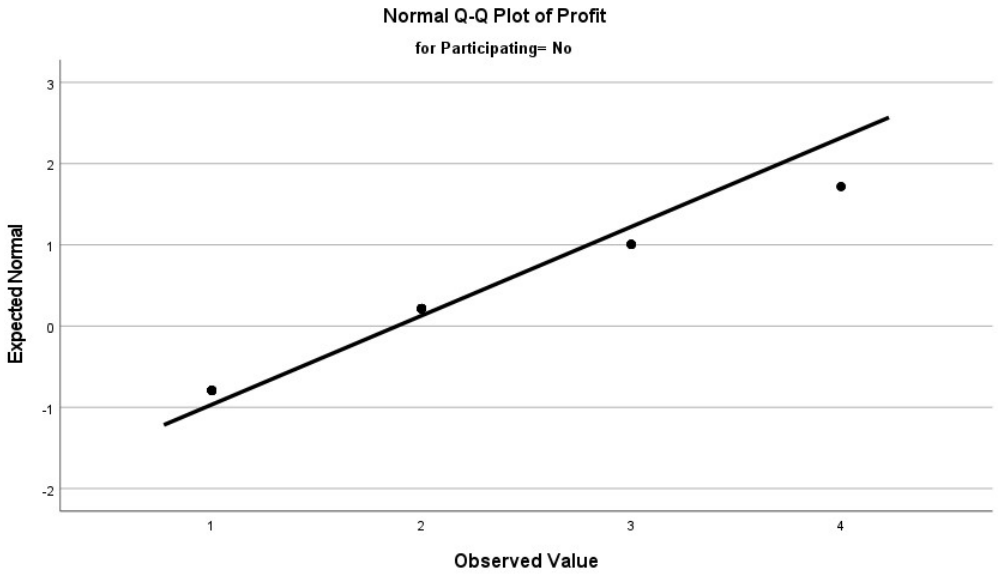


Figure 7

Normality Plot for Participating Providers

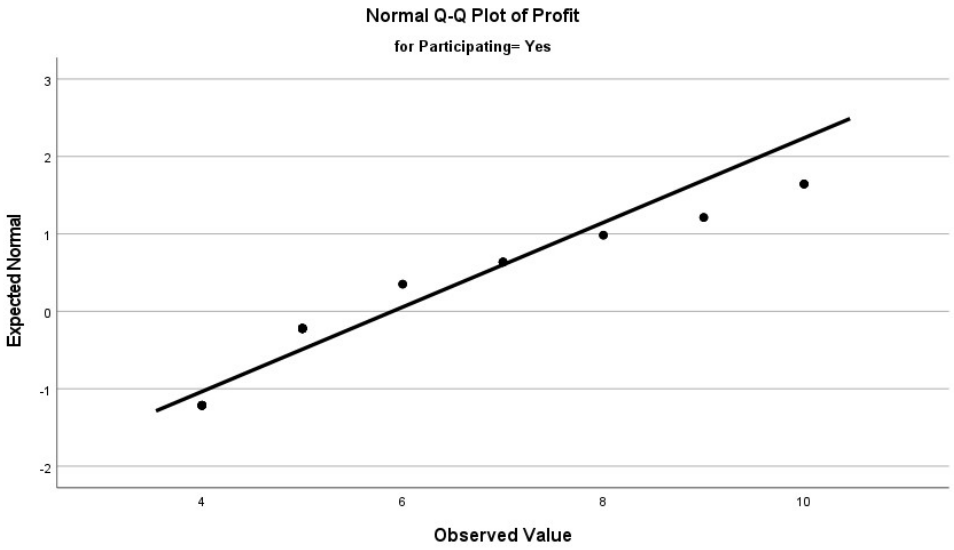


Figure 8

P-P Plot for Dependent Variable Residuals

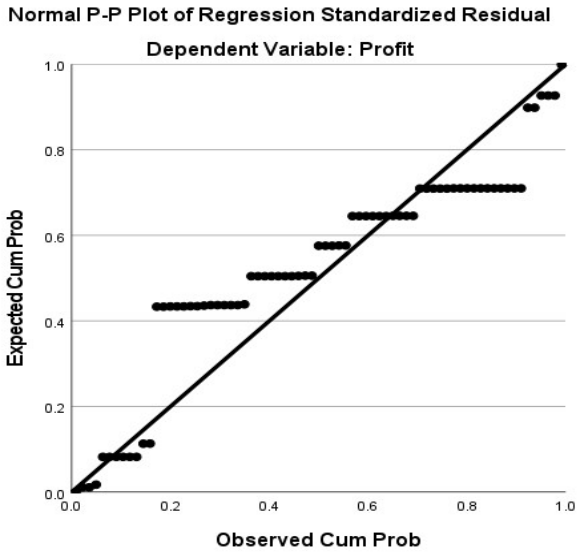
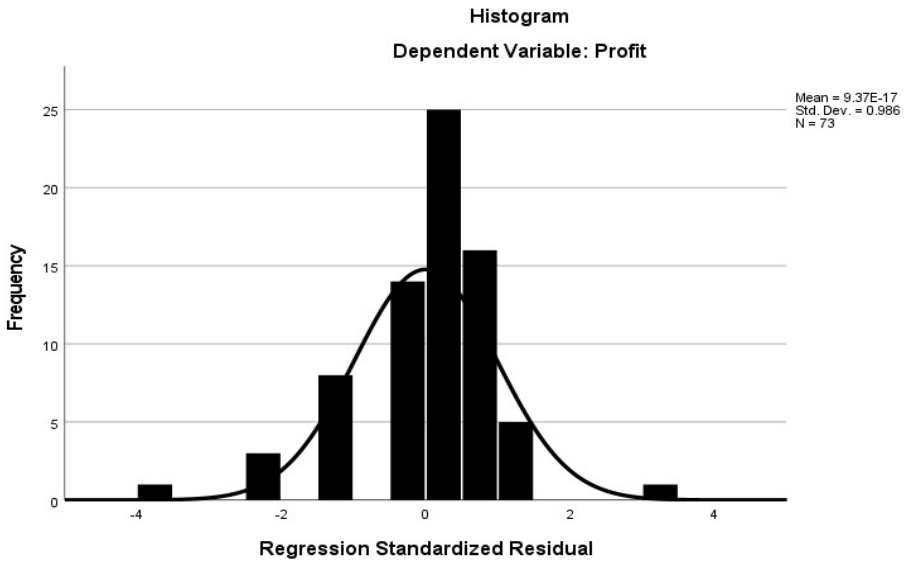


Figure 9

Histogram of Dependent Variable Residual Distribution



Applications to Professional Practice

The purpose of this quantitative correlational study was to examine the relationship between incentive program costs, incentive payments, and profitability. The targeted population consisted of managed-care commercial health plan patients between the ages of 18 and 65 in the Inland Empire of southern California. The independent variables were incentive program costs and incentive payments. The dependent variable was profitability. This study may have implications for social change because primary care physician business owners may increase their efforts to provide preventive patient care. Providing services in alignment with the P4P incentive programs may positively impact profitability.

The results of this study reflect the opportunity of a new revenue stream if primary care physician business owners participate fully in a P4P incentive program. Physicians need to take the time and effort to submit all required information to receive the total amount of incentive payments (Glover et al., 2018). Suppose physicians use the results of this study to justify the extra effort to perform required patient services. In that case, they could see an increase in profitability. The results of my research demonstrated an increase in profitability as participation in incentive programs increases. Costs were not a contributing factor to profitability. Some nonparticipating primary care physician business owners incurred higher costs than payments because the required services were either not performed or not reported.

Primary care physician business owners may use the results of my study to understand the benefits of participating in P4P incentive programs. Clinicians already

perform many patient care services during wellness visits that are part of the incentive program requirements (Integrated Healthcare Association, 2020a). For example, the difference between meeting the minimum requirement might be a few patients. In that case, a minimal effort could result in additional revenue for a physician's practice. A concerted effort by primary care physician business owners to schedule patient visits for preventive care is beneficial for patient wellness and profitability.

Implications for Social Change

Primary care physician business owners interested in greater profitability should engage patients in medical care decisions. Jones et al. (2018) identified stakeholder engagement as a competitive advantage. Physicians who use the additional revenue to increase support staff or provide services for low-income communities may achieve a competitive advantage. A strong bond between the clinician and the patient could create a long-term relationship supporting continued medical office operations.

Medical clinics need to generate revenue to stay in business and serve the surrounding communities. Creixans-Tenas and Arimany-Serrat (2018) found healthcare leaders can increase financial stability with long-term projects. An example of a long-term project is planning for and participating in P4P incentive programs. Physicians could use additional revenue for nonstandard services such as mobile vaccination clinics or an auxiliary home-health nurse for patients without transportation. Proactively addressing the healthcare of patients could improve the lives of the community.

Recommendations for Action

My correlational study revealed the financial benefit received by the participating primary care physician business owners. It would behoove health plan leaders to share these results with healthcare organization leaders and educate primary care physicians on the potential benefits of full participation in P4P incentive programs. Convincing primary care physician business owners to invest in proactive campaigns may involve a change in office culture. Physicians bringing in patients for wellness visits rather than only reactive treatments might provide more opportunities for better incentive program scores. Suggested actions to increase participation include

- shorter measurement periods,
- access to patients and necessary services,
- educational seminars regarding new revenue streams, and
- strategies for encouraging patient wellness visits.

Recommendations for Further Research

For this study, I investigated the relationship between incentive program costs, incentive payments, and profitability of commercial health plan patients. The results indicated a relationship between higher profitability and incentive program costs and payments. Primary care physician business owners may need to consider many factors when deciding whether to participate in incentive programs involving treatment for commercial patients. Further studies are needed to understand the barriers to participation in P4P commercial incentive programs and the benefits of preventive healthcare for commercial patients.

Reflections

In preparing for this study, I anticipated a high return on investment for the participating primary care physician owners. I did not expect any profitability for the nonparticipating providers. The reason for my initial opinion involved professional knowledge of the incentive programs and the participating providers. During the review of the incentive payments earned, I concluded the nonparticipating providers benefited from the robust actions of the participating providers. These actions included communication campaigns to patients and promotions among the clinicians for specific measures.

For example, suppose one member of a household received encouragement to see their participating primary care physician. In that case, other members of the family may visit a nonparticipating primary care physician. The profitability for nonparticipating providers was lower than participating providers but still existed for a small group. The results of my study indicated the potential for a reliable revenue stream if all providers in a medical group participate fully in commercial P4P incentive programs.

I experienced many delays and barriers to developing this study. Working in the healthcare industry during a pandemic slowed progress for almost a year. When I was able to work on this study, I was exhausted and made mistakes. Many new demands on my time existed to address new regulatory requirements and multiple analyses of COVID-19 patient conditions.

Patient-facing healthcare providers, including physicians, nursing staff, and clinic office staff, worked in hazardous conditions to provide patient care. Because of these

conditions, many contracted the virus, and some did not recover. A shortage of nursing staff added a level of complexity to servicing patients. In some situations, administrative staff substituted for clinic staffing outages.

The introduction of new technology for telehealth visits worked well for some providers with closed clinics. However, technical support and reporting requests increased significantly. Other provider offices remained open on a limited basis during the pandemic for high-priority patient care. Because of these reasons, I anticipate low scores for the incentive program measures for the 2020 and 2021 measurement years. The criteria for commercial patients are preventive, and those visits were virtually nonexistent for 2020. This trend will likely continue into 2021.

Conclusion

In this study, I examined the relationship between incentive program costs, incentive payments, and profitability. The results of this study established that incentive program costs were not a statistically significant predictor of profitability. Incentive payments stemming from participation in incentive programs were a statistically significant predictor of profitability. All providers incurred the same incentive program costs per patient. However, providers participating in incentive programs experienced higher payments. Therefore, considering that incentive payments stemming from participation in commercial incentive programs is a construct in satisfying or fulfilling the FST principles of trust, CSR, and economics, primary care physician business owners should consider developing strategies to achieve the measurements of P4P incentive programs.

Future research on incentive program participation should focus on the barriers to participation in P4P commercial incentive programs and the benefits of preventive healthcare for commercial patients that these incentive programs measure. Furthermore, while this study measured incentive program costs and incentive payments through secondary data, observational or interview-based research on the barriers to participation in commercial P4P incentive programs can benefit primary care physician business owners. Observational or interview-based research can identify the resistance or engagement of providers in a patient care setting.

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Appendix A: Data Use Agreement

This Data Use Agreement ("Agreement"), effective as of 5/27/2021 ("Effective Date"), is entered into by and between (Claire Turner) ("Data Recipient") and (Medical Director.) ("Data Provider"). The purpose of this Agreement is to provide Data Recipient with access to a Limited Data Set ("LDS") for use in research in accord with the HIPAA Regulations.

1. Definitions. Unless otherwise specified in this Agreement, all capitalized terms used in this Agreement not otherwise defined have the meaning established for purposes of the "HIPAA Regulations" codified at Title 45 parts 160 through 164 of the United States Code of Federal Regulations, as amended from time to time.

2. Preparation of the LDS. Data Provider shall prepare and furnish to Data Recipient a LDS in accord with any applicable HIPAA or FERPA Regulations.

3. Data to be included in the LDS. **No direct identifiers such as names may be included in the Limited Data Set (LDS).** The researcher will not name the Data Provider in the doctoral study that is published in Proquest unless the Data Provider makes a written request for the researcher to do so. In preparing the LDS, Data Provider or designee shall include the **data fields specified as follows**, which are the minimum necessary to accomplish the research:

- De-identified patient information for diagnoses codes, sex, and date of birth for patients with continuous enrollment with a participating health plan for the calendar year of 2018.

- De-identified treatment information of procedure codes, dates of service, and the provider specialty for each visit during the calendar year 2018 for the specific population.

- The sum of incentive payments received from participating health plans

4. Responsibilities of Data Recipient. Data Recipient agrees to:

a. Use or disclose the LDS only as permitted by this Agreement or as required by law;

b. Use appropriate safeguards to prevent use or disclosure of the LDS other than as permitted by this Agreement or required by law;

c. Report to Data Provider any use or disclosure of the LDS of which it becomes aware that is not permitted by this Agreement or required by law;

d. Require any of its subcontractors or agents that receive or have access to the LDS to agree to the same restrictions and conditions on the use and/or disclosure of the LDS that apply to Data Recipient under this Agreement; and

e. Not use the information in the LDS to identify or contact the individuals who are data subjects.

5. Permitted Uses and Disclosures of the LDS. Data Recipient may use and/or disclose the LDS for its research activities only.

6. Term and Termination.

a. Term. The term of this Agreement shall commence as of the Effective Date and shall continue for so long as Data Recipient retains the LDS, unless sooner terminated as set forth in this Agreement.

b. Termination by Data Recipient. Data Recipient may terminate this agreement at any time by notifying the Data Provider and returning or destroying the LDS.

c. Termination by Data Provider. Data Provider may terminate this agreement at any time by providing thirty (30) days prior written notice to Data Recipient.

d. For Breach. Data Provider shall provide written notice to Data Recipient within ten (10) days of any determination that Data Recipient has breached a material term of this Agreement. Data Provider shall afford Data Recipient an opportunity to cure said alleged material breach upon mutually agreeable terms. Failure to agree on mutually agreeable terms for cure within thirty (30) days shall be grounds for the immediate termination of this Agreement by Data Provider.

e. Effect of Termination. Sections 1, 4, 5, 6(e) and 7 of this Agreement shall survive any termination of this Agreement under subsections c or d.

7. Miscellaneous.

a. Change in Law. The parties agree to negotiate in good faith to amend this Agreement to comport with changes in federal law that materially alter either or both parties' obligations under this Agreement. Provided however, that if the parties are unable to agree to mutually acceptable amendment(s) by the compliance date of the change in applicable law or regulations, either Party may terminate this Agreement as provided in section 6.

b. Construction of Terms. The terms of this Agreement shall be construed to give effect to applicable federal interpretative guidance regarding the HIPAA Regulations.

c. No Third Party Beneficiaries. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns, any rights, remedies, obligations, or liabilities whatsoever.

d. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

e. Headings. The headings and other captions in this Agreement are for convenience and reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed in its name and on its behalf.

DATA PROVIDER	**DATA RECIPIENT**
Signed: _____	Signed: _____
Print Name: _____	Print Name: Claire Turner
Print Title: Medical Director	Print Title: Researcher

Appendix B: Data Collected

Provider	Costs	Payments	Profitability	Participating
1	$ 195.46	$ 211.90	$ 16.44	No
2	$ 24.36	$ 57.50	$ 33.14	No
3	$ 108.46	$ 163.80	$ 55.34	No
4	$ 140.94	$ 196.30	$ 55.36	No
5	$ 149.06	$ 210.60	$ 61.54	No
6	$ 147.90	$ 211.90	$ 64.00	No
7	$ 145.58	$ 212.39	$ 66.81	No
8	$ 41.18	$ 112.50	$ 71.32	No
9	$ 154.28	$ 226.20	$ 71.92	No
10	$ 27.26	$ 145.00	$ 117.74	No
11	$ 35.96	$ 220.00	$ 184.04	No
12	$ 43.50	$ 232.50	$ 189.00	No
13	$ 5.22	$ 265.52	$ 260.30	No
14	$ 6.38	$ 390.19	$ 383.81	No
15	$ 46.40	$ 602.00	$ 555.60	No
16	$ 13.34	$ 600.53	$ 587.19	No
17	$ 14.50	$ 686.80	$ 672.30	No
18	$ 12.76	$ 711.02	$ 698.26	No
19	$ 59.16	$ 805.00	$ 745.84	No
20	$ 13.92	$ 789.83	$ 775.91	No
21	$ 27.26	$ 812.00	$ 784.74	No
22	$ 16.82	$ 851.87	$ 835.05	No
23	$ 16.24	$ 854.59	$ 838.35	No
24	$ 15.08	$ 876.09	$ 861.01	No
25	$ 17.98	$ 907.18	$ 889.20	No
26	$ 64.38	$ 958.00	$ 893.62	No
27	$ 15.66	$ 1,026.98	$ 1,011.32	No
28	$ 17.40	$ 1,110.53	$ 1,093.13	No
29	$ 18.56	$ 1,181.89	$ 1,163.33	No
30	$ 27.84	$ 1,287.33	$ 1,259.49	No
31	$ 24.94	$ 1,333.05	$ 1,308.11	No
32	$ 21.46	$ 1,357.98	$ 1,336.52	No
33	$ 22.62	$ 1,421.90	$ 1,399.28	No
34	$ 26.68	$ 1,500.84	$ 1,474.16	No
35	$ 31.32	$ 1,538.67	$ 1,507.35	Yes
36	$ 38.28	$ 1,703.17	$ 1,664.89	Yes
37	$ 40.02	$ 1,717.35	$ 1,677.33	Yes
38	$ 40.02	$ 1,717.35	$ 1,677.33	Yes

39	$	41.18	$	1,726.81	$	1,685.63	Yes
40	$	41.18	$	1,726.81	$	1,685.63	Yes
41	$	29.00	$	1,766.24	$	1,737.24	Yes
42	$	30.74	$	1,771.81	$	1,741.07	Yes
43	$	42.34	$	1,851.47	$	1,809.13	Yes
44	$	42.92	$	1,856.20	$	1,813.28	Yes
45	$	42.92	$	1,856.20	$	1,813.28	Yes
46	$	44.08	$	1,865.65	$	1,821.57	Yes
47	$	44.08	$	1,865.65	$	1,821.57	Yes
48	$	42.34	$	1,889.87	$	1,847.53	Yes
49	$	37.70	$	1,890.45	$	1,852.75	Yes
50	$	43.50	$	1,899.33	$	1,855.83	Yes
51	$	44.08	$	1,904.06	$	1,859.98	Yes
52	$	45.24	$	1,913.51	$	1,868.27	Yes
53	$	46.40	$	1,922.97	$	1,876.57	Yes
54	$	42.92	$	1,963.96	$	1,921.04	Yes
55	$	30.74	$	2,033.18	$	2,002.44	Yes
56	$	38.86	$	2,046.07	$	2,007.21	Yes
57	$	34.80	$	2,104.68	$	2,069.88	Yes
58	$	31.90	$	2,212.31	$	2,180.41	Yes
59	$	44.08	$	2,481.27	$	2,437.19	Yes
60	$	46.40	$	2,677.30	$	2,630.90	Yes
61	$	44.66	$	2,837.90	$	2,793.24	Yes
62	$	50.46	$	2,892.63	$	2,842.17	Yes
63	$	53.36	$	2,954.67	$	2,901.31	Yes
64	$	46.98	$	3,087.23	$	3,040.25	Yes
65	$	56.84	$	3,129.21	$	3,072.37	Yes
66	$	48.72	$	3,139.82	$	3,091.10	Yes
67	$	55.68	$	3,413.24	$	3,357.56	Yes
68	$	60.32	$	3,527.87	$	3,467.55	Yes
69	$	60.90	$	3,662.71	$	3,601.81	Yes
70	$	64.96	$	3,702.08	$	3,637.12	Yes
71	$	70.76	$	4,335.19	$	4,264.43	Yes
72	$	72.50	$	4,339.59	$	4,267.09	Yes
73	$	77.14	$	4,519.63	$	4,442.49	Yes