# AN INVESTIGATION OF COMMUNITY MEMBERS' KNOWLEDGE AND WILLINGNESS TO CONSIDER THE ALTERNATIVE PAY MODEL FOR DIRECT PRIMARY CARE, PROVIDED BY A NURSE PRACTITIONER


By

Neal R. Garverick

MSN, Widener University, 2003

BSN, Edinboro University, 1999

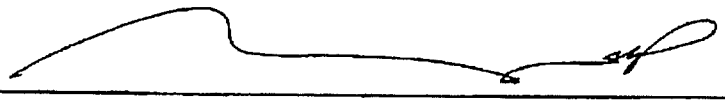
BA, Edinboro University, 1998


A DNP Research Project Submitted to Clarion and Edinboro Universities
In Partial Fulfillment of the Requirements for the Doctor of Nursing Practice Degree
November 2020

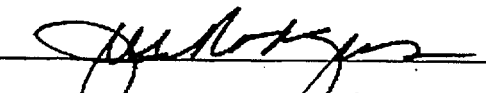
| | |
|---|---|
| 11/20/2020 | Catherine Stiller, PhD, RN, CNE |
| Date | Committee Chair, Dr. Catherine Stiller |
| 11/20/2020 | Jill Rodgers DNP, FNP-BC, PMHNP-BC |
| Date | Committee Member, Dr. Jill Rodgers |
| 11/20/2020 | CBarrett-Barrett PhD, RN |
| Date | Committee Member, Dr. Colleen Bessetti-Barrett |
| ~~11/20/2020~~ 12/2/2020 | Margaret Price |
| Date | Dean, College of Education, Health Sciences and Human Services<br>Clarion University |

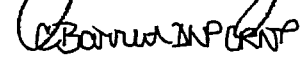
**AN INVESTIGATION OF COMMUNITY MEMBERS' KNOWLEDGE AND WILLINGNESS TO CONSIDER THE ALTERNATIVE PAY MODEL FOR DIRECT PRIMARY CARE, PROVIDED BY A NURSE PRACTITIONER**

**Committee Signature Page**

Student's Name 

Committee Chairperson Catherine Stiller, PhD, RN, CNE

Committee Member 

Committee Member 

**Acknowledgements**

First and foremost, I want to acknowledge my family, specifically my wife Kris who has shared in the journey, both of us nurse practitioners, completing the DNP program together. We have accomplished much more than anyone really knows and managed to maintain a household as well as our ventures-next book we author will be on perseverance for sure! Our two children, Harrison my gym partner, we learned a life lesson that working out is good for the mind and body; and Hayden who listened to many boring discussions I am sure! Remember kids, there is no such thing as a free lunch and if it were easy, everyone would be doing it!

At this point I would like to acknowledge Dr. Catherine Stiller, who early on in my doctoral course work took an interest in my research ideas but more importantly my writing style. You provided patience along the way, challenged me to work hard, and helped me gain knowledge on the DPC model and how it may someday fit in my community-Thanks Cate!

The Committee, Dr. Jill Rodgers, and Dr. Colleen Bessetti-Barrett, thank you for your support and input from the nurse practitioner practice standpoint as well as your guidance with this project and throughout the program.

# AN INVESTIGATION OF COMMUNITY MEMBERS' KNOWLEDGE AND WILLINGNESS TO CONSIDER THE ALTERNATIVE PAY MODEL FOR DIRECT PRIMARY CARE, PROVIDED BY A NURSE PRACTITIONER

Neal R. Garverick, MSN, CRNP

## Abstract

This researcher described the current Fee for Service (FFS) Model to gain information regarding Nurse Practitioner Service awareness in Pennsylvania and introduced the practice model of Direct Primary Care (DPC). The respondents provided information related to the research question of: What are community members' knowledge of alternative pay models for primary care services provided by a Nurse Practitioner? What are community members' willingness to participate in alternative pay models for primary care services rendered by a Nurse Practitioner?

The research showed access problems as >70% of respondents indicated difficulty to scheduling an appointment taking more than 24 hours. It was determined that >28% of respondents found the DPC model more attractive than their current care model, an example of perceived value. This research showed scalability potential meaning other Nurse Practitioners who wish to pursue the DPC practice model in their geographical area could reproduce similar data collection efforts to learn the perception in their state or locality. It is believed that burnout associated with healthcare providers is high and DPC provides an alternative practice model to curb burnout, engage patients and heighten health outcomes while focusing efforts on a smaller practice size.

# Table of Contents

Introduction.....1

Review of Related Literature.....7

Methodology.....17

Results and Discussion.....24

Summary, Conclusions, and Recommendations.....33

References.....38

Appendix.....44

# List of Charts

**Chart** **Page**

**1:** *What Town Do you live closest to?*.....25

**2:** *Awareness of Nurse Practitioner Services*.....26

**3:** *Training of Provider respondent usually sees*.....27

**4:** *Access more than 24 hours to schedule*.....28

**5:** *Value in healthcare service based upon the price you pay*.....29

**6:** *How attractive is Direct Primary Care compared to current care?*.....30

**7:** *Monthly fee willing to pay for Direct Primary Care*.....31

# Chapter 1

## Introduction

This work is an investigation into the awareness of Nurse Practitioner services as well as different models of healthcare delivery. Reviewed are the Fee for Service model and an alternative model, Direct Primary Care. Further discussion on Nurse Practitioners providing this primary care model of DPC and through survey research, understanding value by evaluation of price points a patient would pay for services is sought.

### Background of the Problem

Primary care medicine is traditionally delivered in the fee for service model which presents itself as a cumbersome, inefficient, and a cost prohibitive method for the patient as well as leads to increased burnout for the practitioner providing the care (Dyrbye & Shanafelt, 2011). Fee for Service (FFS) in healthcare is a method in which healthcare providers are paid for each service they perform such as office visits and tests (Healthcare.gov Glossary, n.d.) The earliest insurance product dates back to 1798 when President John Adams signed legislation called "An act for the relief of sick and disabled Seamen" and assessed each American 20 cents per month to have medical care (History of health care reform in the United States, n.d.) Over the next 200 years, healthcare and insurance has undergone change to include the most recent vehicles geared toward universal healthcare called the Affordable Care Act, otherwise known as Obama Care (Healthcare.gov Glossary, n.d.). Insurance products exist currently which are provided by employers or purchased directly from the marketplace on the commercial side. They have proven to have increasing monetary rates each year with less return on the investment (Guttman, n.d.). New patients have difficulty finding a primary care provider who is accepting patients and established patients have difficulty scheduling appointments due to crowded schedules and

limited access. These problems along with reasons for the difficulty are identified by one author is a recently updated document (Torrey, 2020). For patients with commercial insurance, they are left asking themselves what value they receive for the monies spent on a coverage product. Patients with subsidized insurance plans (Medicare and Medicaid) frequently find providers who no longer participate or have closed their panels to these types of coverage options (Boccuti, Fields, & Casillas, 2015). Overall, the current process is not user friendly and from the providers' perspective hinges on the adage of needing to see more and more patients quickly to increase take home pay. This scenario can create an equation for burnout and the potential for medical errors (Kane L. , 2020).

Nurse Practitioners, also known as Advanced Practice Providers (APP) have more recently become the face of primary care medicine in many geographic areas (Bouvier, 2017). APP's provide access to patients and prove to be a cost savings to healthcare systems and patients alike (Cooke, 2015). The quality indicators through satisfaction surveys as well as metrics on chronic care display data equal to that of physician colleagues (Brown, 1995). Additionally, every nurse practitioner is board certified and is covered by malpractice insurance and in approximately half the states, has a collaborative agreement with a physician to practice. In Pennsylvania, the collaborative agreement has recently come under fire with legislative advancements. The push for Full Practice Authority (FPA) is driven mostly by the looming physician shortage. The legislation to update scope of practice laws includes requirements for the APP to meet, such as working in collaboration with a physician for at least 3 years, further ensures patient safety (House Bill 100, 2019). While Full Practice Authority is not active in Pennsylvania, it continues to be anticipated and is a goal of lobbyists. Removing the collaborative agreement requirement not only decreases the cost to provide care, but equally as

important, increases access to care (Issues at a Glance: Full Practice Authroity, 2019). In this document, the writer will provide information and discussion regarding alternative pay models, specifically the direct primary care model, provided by a nurse practitioner. Direct Primary Care is a model for providing primary care services that removes the practice of accepting and billing insurance by billing the patient directly (Direct Primary Care Delivering Exceptional Care. On Your Terms, n.d.). In Pennsylvania, Direct Primary Care is possible but would incur an extra, and unnecessary cost for the collaborative agreement which from the discussion above, is clearly not needed (Martin, 2019).

The current fee for service (FFS) model leaves some patients questioning the value of the service they receive for the price they pay (Lockner, 2018). The fee for service model has strict time restraints from a dollars and cents standpoint as providers generate revenue by seeing patients. The downside in this situation is that having a full schedule of 30 plus patients a day provides solid income but leads to burnout. When patients are booked every 15 or 20 minutes the amount of face time a patient receives is limited. Developing a partnership between the patient and the provider also becomes more challenging under this model of care (Liliedahl, 2019).

**Research Questions**

The research will answer the following questions: What are community members' knowledge of alternative pay models for primary care services provided by a Nurse Practitioner? What are community members' willingness to participate in alternative pay models for primary care services rendered by a Nurse Practitioner?

**Need for the study**

From the literature there were found to be no specific articles published that describe the public's awareness of the alternative pay model Direct Primary Care. There are however citations where Direct Primary Care is defined and described. Understanding what the population knows about DPC and further understanding if they would enroll in this service when it is rendered by a nurse practitioner is the goal of this study.

**Significance of the Study**

From the current research, several themes have developed which support the research questions from a standpoint of making this a worthwhile endeavor to procure more information. First, providers of healthcare experience burnout with factors such as time constraints and administrative tasks not related to direct patient care as examples (Reith, 2018). Second, the development of engaged relationships between providers and patients is important from both sides, however access to care for same day appointments and new patients' appointments is challenging for many providers working under this model of care. The cost of care and services in the fee for service model are viewed to be expensive to the consumer. From a benefit standpoint, using technology to perform visits and correspond quickly to patients can be enhanced with the direct primary care model (Direct Primary Care, 2018).

This researcher will collect data on demographics of a specific population in Pennsylvania as well as obtain different views from community members of various ages and genders on the current fee for service model. Contrasting the direct primary care model as an alternative to fee for service in the questions of the survey are planned. Further, it allows respondents to provide insight into what they feel direct primary care is worth from a dollar amount paid monthly, with a choice for service obtained in a standalone office or if the service

came to them at home. This information can further be evaluated to determine if the DPC model would be a viable option in the data collection area and an alternative to the fee for service model. While Direct Primary Care is not an alternative to insurance, it does offer quality care and increased access (Betz, 2018). When coupled with a catastrophic insurance product and if established with transparency, it provides the consumer discounted features like medications, laboratory studies and imaging services, like fee for service. Direct Primary Care lends itself to having more time and greater access to develop sound, engaged relationships between the patient and the provider.

**Assumptions**

Assumptions of the research include 1) that respondents will honestly answer the questions, 2) respondents will understand questions as they are posed to them, and 3) respondents are who they say they are in regards to age, gender and demographic area. Further assumptions of the research include that community members responding to the survey understand the current fee for service model. Further assumed that they can differentiate and understand there to be a hierarchy of primary care provider. Meaning they recognize not all healthcare providers are physician trained, specifically that Nurse Practitioners and Physician Assistants are practicing in the Primary Care Provider (PCP) role in collaboration or independently.

**Limitations**

Limitations of the study will be determined by the number of respondents to the survey. The use of social media, print advertising and the ability of respondents to utilize technology to complete the survey, may also pose challenges. Using a survey service that has an established respondent base to answer the survey is helpful however may also prove challenging to learn

how to use the platform. Time will also be a factor to collect the desired number of studies and be able to provide an insight into a community's views within about 30-day cycle. Regarding current information about the Direct Primary Care model; there appears to be mostly information available on physician run practices, not practices where the primary care provider is an APP, specifically a Nurse Practitioner.

In summary, problems were discussed with the current fee for service model for healthcare services including cost, access, and provider burnout. Introduced was the research questions to be answered by the survey and why more information is needed on this topic, specifically DPC provided by a Nurse Practitioner. Mentioned briefly were some of the characteristics the survey questions will answer and assumptions of the respondents along with limitations to the survey process.

## Chapter 2

## Review of Related Literature

Keeping the themes in mind, Sister Callista Roy developed her model of adaptation which has four components, but most importantly that the patient's values and opinions should be considered and respected (Roy's adaptation model of nursing, n.d). Roy Described the person as a bio-psycho-social being in constant interaction with a changing environment (Roy's Adaptation Model of Nursing, 2016). As the environment of healthcare changes, specifically the delivery model, the person or the patient will adapt and explore options. This adaption has the ultimate goal of achieving dignity and integrity (Roy's Adaptation Model of Nursing, 2016). The development of a sound and engaged patient-provider relationship that provides access is the goal of DPC and further determining willingness of community members to participate in a care model that meets these basic needs efficiently as an alternative to fee for service is what is sought out in this project, following Roy's theoretical model.

Most of the information about the Direct Primary Care model is written about work done by physician providers of care. The Direct Primary Care model is a model believed to permit high touch care allowing for more attention to be provided to patients at visits. The concept of high touch care vs routine in the number of visits per year was evaluated with findings supporting lower cost and less hospitalizations in the high touch group (Ghaney, 2018). A retrospective cohort study of Medicare Advantage members used the Charleson Comorbidity Index for age and gender showed significance in smaller panel size with increased interaction with the provider that lead to better engagement (Ghaney, 2018). Panel size is the number of patients a provider would take care of or simply the size of their practice. In a DPC model your panel size would be substantially smaller, 200-600 patients. Interaction in DPC would be

increased and completed through in person visits, email, text, and video visits. A program used by Hopkins and Stanford showed high-touch primary care lead to decreased admissions and Emergency department visits for smaller panels of patients (Meyer, n.d.)

In an article related to DPC care, the ability to access a provider through email, have same day visits, and offer wholesale pricing on labs and medicine was investigated (Rowe, 2017). The investigators also looked at the training of the provider, family medicine vs internal medicine and evaluated how many providers were still submitting insurance claims (Rowe, 2015). It was noted that the DPC membership fees were the sole source of income for the practice and most family medicine trained providers no longer submitting claims to insurance companies as they were able to support the business model on membership fees alone (Rowe, 2015). The DPC practice model and its transparency in cost allows for pass through savings to the patient on items like laboratory studies, imaging, and medicines. The research did compare the parameters to that of a similar study from 2005 (Alexander, 2005) and showed that over a decade the growth, the DPC practice model has increased in use and acceptance (Rowe, 2017).

A common problem in healthcare among providers is burnout. In the fee for service model the providers income is derived from seeing patients and billing for services rendered so the means to make more money a provider must see more patients. This cycle not only has a tremendous amount of through put but takes a toll on staff and adds to the administrative tasks related to billing, follow up calls, and chart review, all of which would be deemed administrative tasks, not face to face patient care. Evaluating burnout and factors contributing to burnout syndrome was validated in a survey of 248 healthcare providers (HCP) in Ethiopia identifying factors contributing to the burnout problem (Bhagavathula, 2018). In this study, factors identified included exhaustive work climate, high exposure to emotional strain and work-related

stress to quantify a score where approximately 14% were considered to have burnout (Bhagavathula, 2018). Researchers discussed in the study that the rate appreciated seemed significantly lower than anticipated, citing good work conditions at the hospital and suggested further studies to define underlying factors for burnout were needed (Bhagavathula, 2018). Direct Primary Care offers smaller panel sizes that require fewer daily patient encounters compared to fee for service where a provider may see 20-40 patients in a day, further leading to emotional stress and burnout.

Burnout is more common in Federally Qualified Health Centers (FQHC) and health system owned practices compared to solo-practice or APC-owned practices (Edwards, 2018). This research quantified survey results from over 10K respondents and validated results through the Maslach Burnout Inventory to determine that the rate of burnout to be approximately 20% (Edwards, 2018). Edwards further discusses that factors including perceived control over work, autonomy, relatedness, competence, and values are related to burnout. The research described Social Determination Theory (SDT) which highlighted 3 specific factors that drive human wellbeing including autonomy, relatedness, and competence (Edwards, 2018). Further stating that if the factors were fulfilled, it allowed for engagement, if not fulfilled, increase apathy leading to burnout was found (Edwards, 2018).

Direct Primary Care is good for the patients at the clinic level however it may exclude patients overall due to the cost of membership fees based upon findings of the Starfield adaption of Donabedian's structure-Process-Outcome conceptual model (Cole, 2018). In this research, a review of 116 practices noted an average monthly membership fee of $77.38 to cover primary care services rendered in the office setting including evaluation, check-ups and basic services (Cole, 2018). Further evaluation of patient demographics engaging in this care, location and

socioeconomics of the area are needed to better compare this model to current primary care delivery methods (Cole, 2018). In the fee for service model, claims data is evaluated to determine use and acuity of visits compared to DPC, where claims data does not exist, making it difficult to evaluate the impact, specifically at the health system level (Cole, 2018). In the context of vulnerable populations, decreasing access due to cost may further worsen access in the direct primary care model. In thinking of the average monthly cost of membership, there are no set rates for reimbursement such as in the fee for service model; in DPC, the provider sets pricing based upon what the market will bear. Affordable price points are needed when working to fill a panel of patients to serve. Direct Primary Care is fundamentally about access to sound healthcare and relationships with no limits on the number of visits. If you were to place wording in the DPC practice contract that limited access to healthcare and the provider, I believe this would work against the principals this model works to create. Finding a way to balance the workload against income to serve the most patients and decrease exclusion is needed. Patients must realize value in the services and the relationship DPC provides, otherwise patients will funnel monies elsewhere. Additionally, contracting patients to 4-, 6- or 12-month cycles aligned with open enrollment in the fall may ensure better forecasting of income for the provider. Payment models for primary care providers, physicians, falls short and lacks support to enhance primary care activities hence the need for innovative payment reform (Rich, 2010). This article discusses that the Fee for Service (FFS) payment method encourages the capitation method and discourages resource consumption (Rich, 2010). The environment created by the FFS method of payment has led to a decline in primary care providers in the United States (Rich, 2010). With Patient Centered Medical Homes (PCMH) the focus on care delivery, new payment models are needed to incentivize providers to continue to go above and beyond to keep patients well (Rich,

2010). A combination of FFS, capitation and a modified FFS-episode based bundle each have pluses and minuses but in general can be combined to make a new approach to payment and the creation of rewards for enhanced care primary care activities (Rich, 2010).

The problem of the FFS model is not just in the United States, the 2019 MacKinnon report by the Alberta Canadian government provides recommendation to end FFS as the model for payment of primary care due to its inefficiencies (Lange, 2020). The research shows that in Alberta, the FFS model has many inefficiencies and incentivizes volume where cost control and quality care based on management of chronic care should be the focus (Lange, 2020).

Overall, the service of Chronic Care Management (CCM) and care coordination was welcomed by patients and providers however the reimbursement for the service was inadequate and cumbersome to perform due to consent issues and Electronic Health Record (EHR) exchange issues (O'Malley Ann S., 2017). Caring for chronic care patients through a Chronic Care Management activities requires coordination of care and resources not readily accounted for in the payments received when implemented (O'Malley Ann S., 2017).

Telemedicine services in the primary care setting offer little reimbursement in the fee for service model and while legislation exists to promote its use for meaningful use, it creates barriers for small solo practices (Kane C. &., 2018). Limitations discussed by the researcher included inability to determine the intensity of the visit, and the frequency in which telemedicine was used vs in person visits (Kane C. &., 2018). The use of telemedicine is new and evolving in that it requires hardware, software (most likely part of current EHR) and protocols on how to provide the service efficiently. The article cited not all states providing reimbursement (parity laws) or same reimbursement as a face to face visit, which leads the reader to believe the service while convenient and efficient, also would requiring increased time, and would be less lucrative

than seeing the patient in the office (Kane C. &., 2018). Recent developments to the telemedicine service provided in the fee for service model have increased reimbursement and increased health outcomes (Using Telehealth to Expand Access to Essential Health Services during the COVID-19 Pandemic, 2020). Before the pandemic, telemedicine services were not readily reimbursed at the same rate as an in-person office visit and where not common place in the fee for service model of healthcare. The use of telemedicine continues to have a learning curve as it is as it becomes more common place.

All the information thus far has been related to the alternative model of DPC, discussion about burnout as a trigger for providers to seek an alternative model and what income can be garnered based upon a monthly rate multiplied by the panel size. The other side of a practice, traditional primary care or DPC, is the cost of doing business. Understanding the business model for running a lean operation and allocating funds for technology and equipment that enables a provider to deliver the service is also important. Kwietniewski, Heimeshioff and Schreyogg (2016) describe physician cost function in their work to be related to several variables including number of hours worked, amount of staff, specialization of the provider, and the practice size. The results of the study allow the reader to further considers costs associated with providing a service and do highlight that when the number of providers increases, so do costs, but if this is offset by adequate production, a balance is created (Kwietniewski, 2016). In thinking about my investigation, as a solo practitioner or partnership with one other provider initially, I would focus on growth of the panel to perform projections related to income and compare this to costs which should remain constant for items like rent, technology, staff salaries and disposables. This information would allow me to determine the breakeven point for panel size and give guidance on how much financial effort is needed in marketing. Another solid point from this article was

that owner's vs employed providers have a different level of engagement in the service meaning an owner will be more dedicated to lean operation vs an employed provider (Kwietniewski, 2016). It is hard enough to deliver quality primary care to the patient at every encounter; having a clear understanding of your profit loss statement on a rolling basis is needed for longevity.

Research shows an estimated 40% waste of healthcare dollars attributed to being spend not directly on primary care services but on processing insurance claims according to a 2007 Medical Group Management Association Data (Carlson, 2015). To file a claim under the FFS model, a provider must examine a patient to then request payment. This further shows that over filled schedules and decreased face time is the vehicle to file more claims to increase revenue.

Discussed thus far have been benefits to the provider with little mention of benefit to the patient for choosing the direct primary care model to receive their healthcare. In exchange for the monthly payment directly to the provider, the DPC model benefits the patient by providing significant cost savings, increased access to their provider and increased time during an office visit with their provider (Betz, 2018).

To understand the administrative role and training clinicians must perform, part of the practice of medicine, training of administrators in medicine was investigated. It was found that most administrators in a health system are males, physician trained, slightly older than a practicing physician and have been in their current role for approximately 7 years (Kindig, 1986). Interesting is that administrators in healthcare seem to transition into the role after years of providing care and from the survey results only 9.8% had MPH degrees and 1% had MBA degrees however 21.5% reported that training should be required followed by 62.1% indicated training to be advisable (Kindig, 1986). This raises the question of what training is needed for such a role in a healthcare system and further what training would be needed for a nurse

practitioner run DPC practice to ensure success. With the current regulations from governmental agencies at the federal and state level, keeping abreast of developments on this front as well as having a solid understanding of the business model and awareness of your profit loss statement is fundamental for success. This piece is important in that a DPC practice is usually run by a practitioner and has many aspects to manage of which little training is provided in the formal schooling.

The National Committee for Quality Assurance (NCQA) provides certification in achieving the status of a medical home. This status places structural changes to how patients become engaged in a practice and has the goal to improve quality and contain costs associated with patient care (Friedberg, 2014). In healthcare, large dollars are tied to achieving this status and deploying the methods of the medical home. The researchers performed survey analysis of claims data from pilot practices over a 3-year period to determine the effectiveness of the medical home at inception and at the follow up (Friedberg, 2014). Essentially, the medical home did not improve quality nor did it reduce utilization over the 3-yer period suggesting further refinement of the program; it did however show an average bonus of $92K was paid out per provider in the pilot practice during the 3-year period (Friedberg, 2014). This shows there are a lot of avenues for income as a provider, not directly related to providing care, but in exploring care models within the fee for service structure even if they are unsuccessful. From the research it is noted that large sources of government funding are available to providers to establish programs even if unsuccessful.

In support of the DPC model, it was found that patient satisfaction as well as clinical outcomes improved in this unhurried model while reducing racial disparity and absenteeism to create a better functional status for patients (Carlson, 2015). When patients are able to gain

access and providers are able to relax and focus just on care and not the plethora of administrative tasks associated with providing a service, the research shows a positive experience for both the patient and the provider. This alone is remarkable, but when coupled with the ability to provide cost savings on labs as well as medication, the costs of care are readily known upfront and decreases anxiety for patients (Downs, 2018). The DPC model is further enhanced when an employer is self-insured and is able to offer the benefit to the employee and their family which has shown to reduce sick days and missed time from work (Downs, 2018).

In conclusion, the idea of DPC run by a nurse practitioner has many points to consider before opening the door. The Direct Primary Care model was discussed from a standpoint of what it offers related to access and building the patient-provider relationship as well as being affordable. The research does support the theme of potentially further leaving a vulnerable population more vulnerable due to the monthly fee. Found was that higher touch shows better outcomes for patients and leads to engagement of preventative care which is the aim of DPC. The factor of burnout in medicine is real and evaluating the contributors leading to burnout are a trigger for even considering a change to the DPC practice delivery model. Telemedicine services are helpful and part of a government initiative for meaningful use but in the fee for service model are poorly reimbursed until the pandemic. With DPC telemedicine services are part of the tools used to deliver care and are absorbed by the monthly fee making it easier to engage the patient. Understanding the cost to provide care is a difficult task and can be more expensive with the more providers verses owners added to a practice specifically because employed providers may not be as dedicated lean operation. It was found that some administrators are in positions not specifically because they are trained to be effective leaders but based upon their number of years in the system. Additionally, it was found that governmental programs exist to implement

changes in the fee for service care model that are highly subsidized and even if found to be ineffective and may still be commonplace.

Using the Net Promoter Score (NPS), patient experience with DPC was measured and found to have a "too good to be true" response from consumers further providing encouragement that patients enjoy this engaged model of care (PaladinaHealth, 2015). There was otherwise limited information found on specific studies measuring patient perception of Direct Primary Care which points to a gap in the knowledge base. It was further found that testimonials exist of patient experiences with DPC and nothing specifically measuring knowledge of this care model at the time of the review. There are however many web based informational sites that provide information which for the most part, outside of word of mouth, is how patients are learning about this care delivery model (Roberts-Grey, 2020). Overall, the literature shows that DPC is a viable option and worthwhile pursing. Collecting data to determine community awareness and willingness to participate in DPC as a primary care model staffed by a Nurse Practitioner is an appropriate next step.

## Chapter 3

## Methodology

The purpose of this study was to determine what are community members' knowledge of alternative pay models for primary care services provided by a Nurse Practitioner? Further, the research aimed to determine what are community members' willingness to participate in alternative pay models for primary care services rendered by a Nurse Practitioner? To better qualify the participants, defining what types of insurance products people in a specific geographical region currently have and how it is paid for was needed. Further questions on the survey help to understand the demographics of the participants. Finally, the researcher aimed to determine the willingness to consider Direct Primary Care as a vehicle to obtain primary care services and at what monthly payment the market would bear. A survey on these points was developed to answer the research question: What are community members knowledge of alternative pay models for primary care services provided by a Nurse Practitioner? What are community members willingness to participate in alternative pay models for primary care services rendered by a Nurse Practitioner?

### Research Design

This study was characterized as a descriptive research study to obtain baseline data on public knowledge of the Direct Primary Care model and willingness to participate when run by a nurse practitioner. The survey tool was administered, and descriptive analysis performed to evaluate gender, age, awareness of nurse practitioner services, current insurance products, and price points a consumer was willing to pay for this type of service, both in an office setting or at a person's home.

**Setting**

The best approach was found to collect data via SurveyMonkey Audience feature and open the field to a demographic from the state of Pennsylvania. Tools existed within the SurveyMonkey platform to concentrate responses by specific interests and other characteristics. The criteria for location was best narrowed down to the state level as it provided information from a large enough demographic but specific to local regions as respondents identified which large metropolitan area they were located closest to.

**Sample**

A sample size of 385 was determined to yield appropriate data for the study using an online sample size calculator (Sample Size Calcuator, n.d.). The total population of the state of Pennsylvania was found to be 12.8 million (QuickFacts Pennsylvania, n.d.) This target sample size provided a 95% confidence interval and a 5% margin of error. Inclusion criteria to take the survey included respondents over the age of 18. This was important as respondents need to be of adult age to make decisions and the understood age for this is 18 years of age. If surveys were not completed entirely, this was mentioned in the analysis. Exclusion criteria included respondents less than age 18 and incomplete survey responses were indicated by the number of skipped respondents for a specific question. Redeployment of the survey in a few weeks was planned if the target sample size was not be achieved from the SurveyMonkey service, however, was not needed. A pilot study was completed prior to the final data collection. There were many methods and suggestions on how to pick the number needed for the pilot study. Further described are Rules of thumb for pilot studies, specifically a flat rate to use at least 30 subjects was suggested (Whitehead, 2016). For this study, a pilot study of 100 respondents was performed to achieve gender balance in the state of Pennsylvania. A feature in SurveyMonkey

Audience allowed the initial 101 responses from the pilot to be merged with 312 additional responses to achieve the appropriate sample size without any duplicate respondents. Additionally, unique, was the fact that SurveyMonkey allowed more respondents than requested, increasing the sample size to a total of 413 completed surveys.

**Ethical Considerations**

Approval for this study from the Institutional Review Board at Clarion University was obtained prior to embarking on data collection. Consent to take the survey was located on screen 1 as well as a confirmation that the respondent is age 18 or greater, acting as a starting point to the survey. A respondent had the option to abort the survey at any time however this did not happen. Incomplete surveys or skipped responses were accounted for in the discussion. The identity of the respondent was never known, ensuring confidentiality, privacy, and complete anonymity. The researcher completed Collaborative Institutional Training Initiative programs set forth from both Clarion and Edinboro Universities. To further protect respondents, an informed consent questions exists in the beginning of the survey and can be found in appendix A. When the survey was loaded to SurveyMonkey, the option to not collect identifying information from respondents was selected to ensure the data remains anonymous. SurveyMonkey provided a published privacy policy that further protects the respondents and the data and can be found in appendix D.

**Instrumentation**

The research tool was a 15-question survey presented to responders by SurveyMonkey in an electronic format (Appendix B). Reliability is the ability of an instrument to achieve the same results each time it is given (Sullivan, 2011). Reliability in this instrument was achieved by providing set answers to the respondents for each question and not allowing the ability to

enter free text. Presenting multiple answers to a question ensured the answers to be specific, and appropriate for the question. If the respondent completed the survey, it can be counted and considered reliable, noting the number of skipped responses for each question. Validity was achieved by providing appropriate questions in the survey to answer the research question. Further, ensuring that data collection was not biased, and the total number of responses needed was achieved, the questions were presented to the respondent closed ended in multiple choice format. Once the survey questions were scrutinized for readability and accuracy, a pilot study of at least 12 respondents is performed to ensure the instrument is working (Moore, 2011). In the case of this research, the pilot study had 101 responses to achieve gender balance in the state of Pennsylvania.

The survey was presented through SurveyMonkey, to eliminate bias of human error in its presentation. In the development of this instrument, a panel of expert committee members was utilized to provide depth by evaluating each question based upon the current literature about topics of Direct Primary Care. Additionally, since this instrument was created for this study and no other instrument exists specific to this topic, the pilot study, reviewed by the research committee and or chairperson served as a point of validity (Sullivan, 2011). The pilot study served as a method to ensure the questions have readability and understandability by average people.

**Data Collection**

The SurveyMonkey platform allowed for the survey to be sent to respondents screened by SurveyMonkey Audience feature and yielded the requested number of surveys in less than 24hours. Once the survey was loaded to the platform, SurveyMonkey distributed the survey electronically.

**Data Analysis**

Data from the survey was downloaded and descriptive analysis was used to create relationships between the responses. The survey was set up in a manner that the questions were presented to the respondent closed ended to remove variables, such as free text answers. From the data, filtering and comparing of the questions was possible to understand responses based on geographic area in the state, by gender or by age. Using this compare feature allowed the comparison of questions within the study and it was important to compare initial questions on age, gender, and location to attractiveness of DPC. First described from the data was the number of male and female respondents and then percentages from the age ranges. Next, to understand geographically where the respondents were located within Pennsylvania, percentages were calculated based upon the city they identified as being closest to them. Further description regarding the number of female and male respondents and their age ranges from each major city in the geographical region was reviewed.

The next area described was the awareness of nurse practitioner services, again using the gender and age ranges, charts were easily created to understand the respondents' answers. The data was further analyzed based upon geography within the state of Pennsylvania to understand a respondent's awareness and to draw conclusions about experiences with nurse practitioners. In the next question, it was determined which type of provider a respondent sees for their current primary care services, which gave the researcher an understanding of how familiar responders were with nurse practitioners. Of interest was where respondents obtain their primary care services to draw conclusions about whether respondents are part of a larger healthcare conglomerate. Again, contrasting age, gender, and geographic region within Pennsylvania for each topic or question. Descriptive data analysis was performed to show themes from the

responses in relation to age and gender from the state of Pennsylvania. Question 8 helped to get a feeling of engagement and attachment to understand if respondents are finding that relationships are solid with their provider or if they are finding that a provider is here today and gone tomorrow. The next question helped to understand access, determining if there was an issue to access care in the same day or if there was a delay. To understand what insurance products were being used, a question was used with information about satisfaction with the service. This was important to contrast perceived value in the way a respondent receives their primary care and helped to determine if they feel the product is worth the cost monetarily. The next question introduced the Direct Primary Care model with a description and compared that to fee for service model which was believed to be commonplace for the respondents. In this question, of interest was the wording and the number of yes vs no answers which was key in having respondents understand the main theme of the survey.

Understanding the ability to differentiate the fee for service (FFS) model vs the newly introduced Direct Primary Care (DPC) model provided validity moving through the remaining questions. Question 13 was broken down by age, gender, and geographical area to understand interest in what responders learned in the previous question regarding the newly introduced Direct Primary Care model. The next two questions determined price points where the respondent saw value in the DPC service. This information was key to compare how this model was received in different geographical regions of the state as well as which gender and age group would be inclined to engage the model.

## Time Schedule

Data collection began once approval to proceed was obtained from the Institutional Review Board. Upon completion, the SurveyMonkey software allowed for analysis of the data and the themes and relationships were described leading to completion of the project. The SurveyMonkey Audience feature guaranteed a return of the requested number of completed surveys in 48 hours. It was anticipated that the survey would take no longer than 15 minutes to complete and metrics showed an average completion time of less than 3 minutes.

## Summary of Methodology

The purpose of this research was to determine community members' knowledge of alternative pay models for primary care services provided by a Nurse Practitioner? What are community members' willingness to participate in alternative pay models for primary care services rendered by a Nurse Practitioner. This descriptive study was performed through SurveyMonkey and the platform they have in place. Approval from the Clarion Institutional Review Board was obtained prior data collection and the identity, privacy, confidentiality, and anonymity of the responders was maintained. Consent to participate in the study was gained within the survey on screen 1 as respondents could choose not to consent and abort the study or continue toward completion. It was only administered to respondents age 18 or greater. A pilot study was performed once the survey questions were fine tuned for readability and appearance including appropriate use of white space on the screen.

## Chapter 4

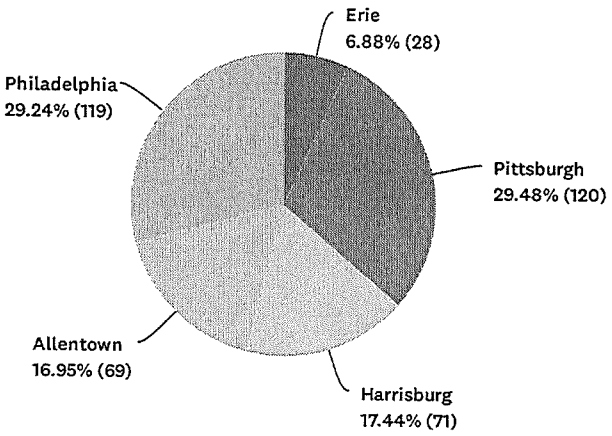
## Results and Discussion

The pilot study was conducted, planned initially for a minimum of 12 responses, but increased to 101 responses to account for gender balance and to ensure readability and flow of the survey questions. From the pilot study, and after discussion at the committee level, it was determined that the responses were appropriate, and respondents had no difficulty completing the survey. The Survey was repeated, merging 312 responses with the pilot study yielding a total of 413 completed surveys. Of note, the SurveyMonkey platform ensures that no duplicate respondents were sent the survey as it was administered within a 100-day period. The following figures represent the entire data collected from the population of Pennsylvania.

The data showed 402 (97.34%) respondents consented to complete the survey and 11 (2.66%) selected no to consent question however did not abort the study and completed it. Regarding demographic representation and gender balance, there were 179 (44.09%) males and 227 (55.91%) females who participated in the survey and 7 respondents skipped this question. From the data, the majority of the responses were from the age range 48-53 (13.14%) followed by 18-23 (12.9%) and 36-41 (12.9%) then 42-47 years of age (11.92%) with the least represented age group being 83-88 (0.24%) and 77-82 (0.97%).

Regarding the closest city a respondent identified, 29.24% were from Philadelphia, followed by 29.48% Pittsburgh, 17.44% Harrisburg, 16.95% Allentown and the least amount from Erie at 6.88%. From the data, 6 respondents skipped this question.

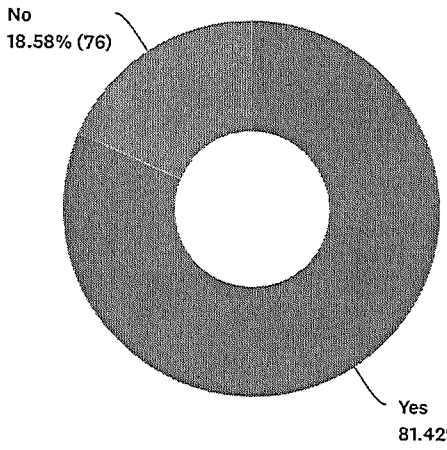
**Chart 1: What town do you live closest to?**




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Erie | 6.88% | 28 |
| Pittsburgh | 29.48% | 120 |
| Harrisburg | 17.44% | 71 |
| Allentown | 16.95% | 69 |
| Philadelphia | 29.24% | 119 |
| TOTAL | | 407 |

From the research question, I was interested to learn about awareness of nurse practitioner services in Pennsylvania, specifically if respondents were aware of how nurse practitioners function in the job they perform specific to evaluation and treatment of acute and chronic health problems, ordering of labs and diagnostic tests as well as performing office procedures and prescribing medication. The data showed 81.42% were aware Nurse Practitioners provide primary care services and 18.58% were not with 4 respondents skipping this question.

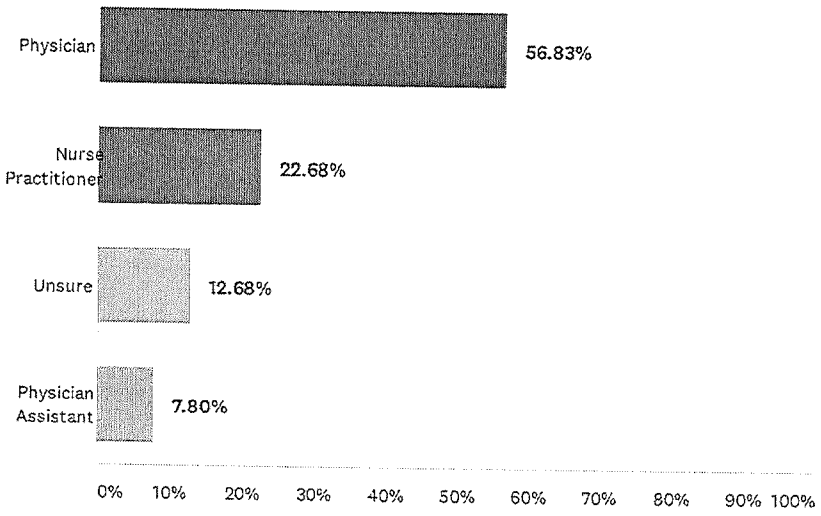
**Chart 2: Awareness of nurse practitioner services**




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 81.42% | 333 |
| No | 18.58% | 76 |
| TOTAL | | 409 |

Further interest was in who patients typically saw for their healthcare needs such as colds, physicals, and blood pressure. From the data, 56.83% identified a Physician, 22.68% saw a Nurse Practitioner, 12.68% were unsure of the credentials of the provider and 7.80% saw a Physician Assistant. There were 3 skipped answers to this question.

**Chart 3: Training of provider respondent usually sees**



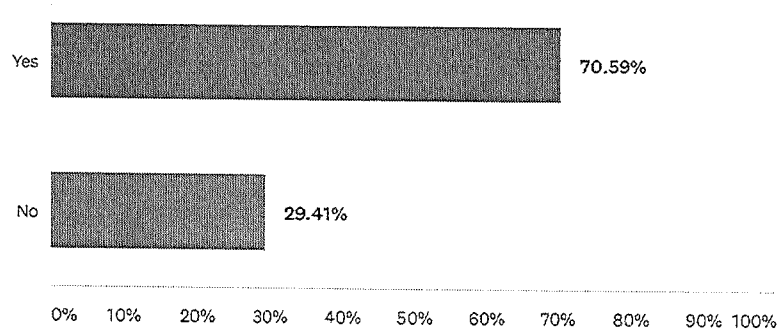

| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Physician | 56.83% | 233 |
| Nurse Practitioner | 22.68% | 93 |
| Unsure | 12.68% | 52 |
| Physician Assistant | 7.80% | 32 |
| TOTAL | | 410 |

With increased expense related to healthcare, understanding the location patients seek care is important as different venues, while providing convenience, also have an increased cost compared to the usual office setting. The data showed 68.95% of people seek care in the office setting which was reassuring from a cost containments standpoint. Second to the office setting was the urgent care venue at 18.58% followed by drug store clinics at 5.62% and lastly the emergency room at 6.85%. This question was skipped by 4 respondents.

Further related to access, attrition, and migration of healthcare providers, determining if patients had experienced a situation where in the last 2 years they called to schedule an appointment only to find out their provider was no longer at this office. In this circumstance, 31.3% found this to be true and 68.7% did not. Also related was the question of next available

appointment so respondents were asked if they encountered in the past 2 years a longer than 24 hour timeframe to schedule and overwhelmingly 70.59% answered yes while 29.41% indicated the ability to schedule within 24 hours. This question was skipped by 5 respondents.

**Chart 4: Access more than 24 hours to schedule**



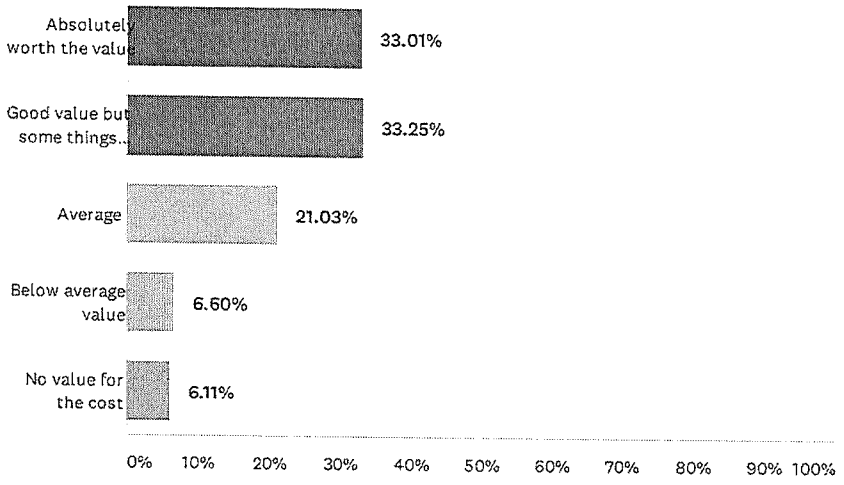

| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 70.59% | 288 |
| No | 29.41% | 120 |
| TOTAL | | 408 |

The data from the last two questions represent engagement and access. Patients have the expectation of being seen for problems quickly and when access is decreased, specifically related to extended timeframes to schedule, patients may seek care in different, more costly venues such as the ER or urgent care centers. While venues other than the office setting offer wait and be seen service, the engagement piece described previously is missing, and continuity of care may also be absent, an area for more research moving forward.

Respondents were asked who pays for their healthcare, meaning what vehicle exists to cover the cost. Commercial insurance, paid by an employer or obtained from the marketplace, was identified as the vehicle to cover healthcare costs from 43.52% of respondents. Another 43.03% identified Medical Assistance, either Medicare or Medicaid and 8.31% paid in cash, while 5.13% were unsure how their healthcare was covered. This question was skipped by 4

respondents. When evaluating how people paid for healthcare, understanding perceived value in of the service provided based upon the cost was sought. From the data, 33.01% thought what they paid was worth the value while 33.25% found it to be a good value but some things could be better. Another 21.03% found the value was average, 6.06% found the value to be below average, and 6.11% found no value for the price paid. Question skipped by 4 responders.

**Chart 5: Value in healthcare service based upon the price you pay**



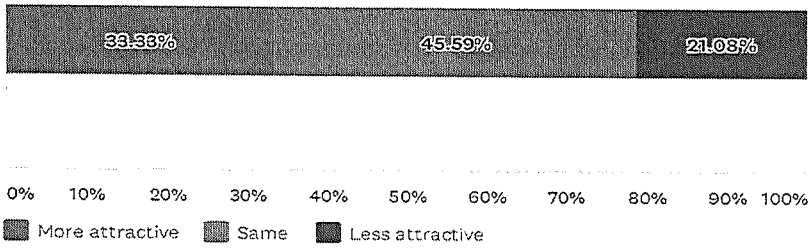

| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Absolutely worth the value | 33.01% | 135 |
| Good value but some things could be better | 33.25% | 136 |
| Average | 21.03% | 86 |
| Below average value | 6.60% | 27 |
| No value for the cost | 6.11% | 25 |
| TOTAL | | 409 |

Introduced next was the concept of Direct Primary Care and it was contrasted against the Fee for Service (FFS) model most patients currently participate in. The data showed for 88.75% of respondents understood the differences between the two models, 11.25% did not, and 4 respondents skipped this question. This question, like the one above regarding awareness of nurse practitioner services is a pivotal question for the entire survey. Understanding the two

models lays the foundation for the following questions in determining if respondents are open to this type of model or if they find it too abstract to pursue it.

The next question in the survey clearly stated that Direct Primary Care was not a replacement for insurance but highlighted that in this model, for a fee, a patient can establish a relationship with a provider that yields more flexibility regarding time and access with same day appointments and convenient avenues for communication like text, phone and email in addition to in person visits. Respondents were asked how attractive this was compared to their current means of accessing care. From the Data, 45.59% found this to be the same, 21.08% found it less attractive, and 33.33% found it more attractive than their current means of obtaining care. This question was skipped by 5 responders.

**Chart 6: How attractive is Direct Primary Care compared to current care?**

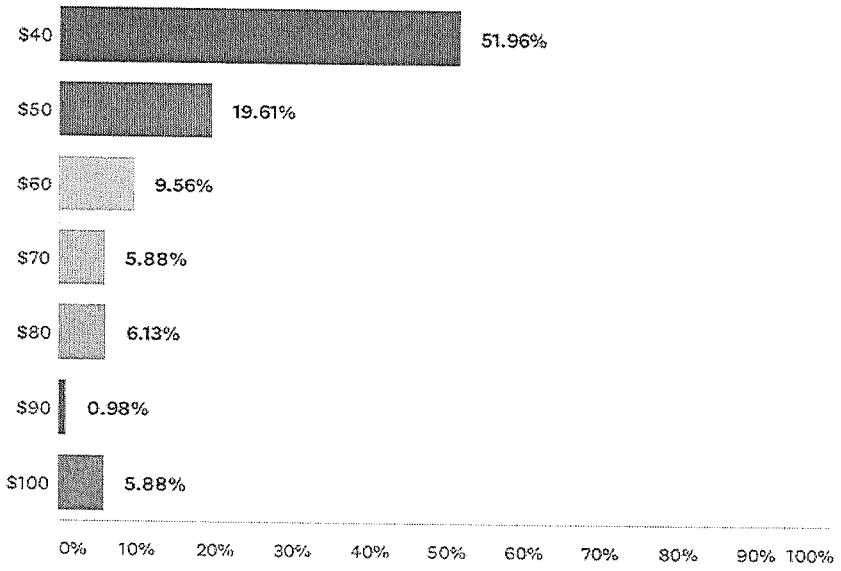



| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| More attractive | 33.33% | 136 |
| Same | 45.59% | 186 |
| Less attractive | 21.08% | 86 |
| TOTAL | | 408 |

From the standpoint of what patients would pay for the service, 51.96% indicated $40 per month, 19.61% at $50 per month, 9.56% $60 per month, 5.88% $70 per month, 6.13% $80 per month, 0.98% $90 per month and 5.88% $100 per month respectively. This shows an

overwhelming number of people gravitating to the cheapest price point. This question was skipped by 5 responders.

**Chart 7: Monthly fee willing to pay for Direct Primary Care**




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| $40 | 51.96% | 212 |
| $50 | 19.61% | 80 |
| $60 | 9.56% | 39 |
| $70 | 5.88% | 24 |
| $80 | 6.13% | 25 |
| $90 | 0.98% | 4 |
| $100 | 5.88% | 24 |
| TOTAL | | 408 |

Lastly, of interest was to see what price point people were willing to pay for the same service that came to them as an onsite service and the proportions were similar however the price point started at $100 (67.00% selected) per month ranging up to $225 (1.76% selected) per month.

Filtering the responses from the questions by geographical area, specifically from respondents identifying Harrisburg as the closest city they live near provided the following information. From this region, 71 responders provided the following data: 40% male, 60% female; 36.62% represented the 18-23 and 54-59 while 25.36% represented30-35 and 36-41 age groups; 80.28% were aware of nurse practitioner services, and 54.93% saw a physician for their care and 22.54% a Nurse Practitioner. The office setting was used for care 76.06% of the time, and about 30% found their healthcare provider had left the office when trying to schedule. Access of more than 24 hours to schedule was noted to be 65.71% and 28.17% found Direct Primary Care to be more attractive than Fee for Service while 59.15% found it to be the same.

## Chapter 5

## Summary, Conclusions, and Recommendations

The data collected yielded statistically significant results for the state of Pennsylvania (population of 12.8 million) based upon the needed sample size of 385 and 413 responses were obtained providing a 4.827% margin of error. The sample size was balanced regarding age and gender by consenting adults with most of the numbers coming from the largest cities in Pennsylvania however underrepresented was Erie. This makes sense however with Erie being the third largest city in the state of Pennsylvania it was surprising to see this was not represented as the 3rd largest city respondents lived closest to. This underrepresentation is believed to be related to SurveyMonkey's respondent pool. A limitation to age range at the upper end could be related to access to an electronic device and electronic literacy in general. The data showed the population has knowledge of nurse practitioners' skill set and abilities and the significance in the responses to this question point to the nurse practitioner being the accepted provider half of the time compared to physician colleagues. Moving forward, attrition may be a factor for providers, more so physician's vs nurse practitioners entering primary care. Monitoring this metric in the future is important to ensure the population has access to primary care services, regardless of training.

Patients seek care predominantly in office settings which proves most cost effective compared to emergency rooms and urgent care locations. Respondents identified some difficulty with provider migration when going to schedule appointments and significant was the time to be seen where the survey identified access issues.

Most respondents had healthcare paid by either commercial insurance or by medical assistance products, however a significant portion of the population, 8.31%, was paying for

healthcare with cash. Recognition between the two payment models, Fee for Service (FFS) and Direct Primary Care (DPC) was noted by the respondents at more than 88% and only 33% found the value to be acceptable as it was in the healthcare they received. The data points to the fact that patients want more, when coupled with the perceived value as well as the ability to be seen for an appointment within a 24 hour period, the responses are positive for the Direct Primary Care model. As the environment of healthcare changes, specifically the delivery model, the person or the patient will adapt and explore options This adaption has the ultimate goal of achieving dignity and integrity (Roy's Adaptation Model of Nursing, 2016). The model of Direct Primary Care however did appear more attractive to greater than 30% of the state which opens the door to exploring this type of model in the future.

Based upon the price points provided by the range in the survey, respondents found $40 per month to be appropriate payment to a provider for the service of DPC and $100 per month if the service came to them. I believe this was a limitation of the question. If the range would have started at, for example $75, this may have been the largest response. Conversely, if this were presented as an open-ended question where respondents could manually input a dollar amount, this may have been more representative of the true market value of the DPC service. The survey also could have incorporated wording in the price point questions to say specifically "would you pay for DPC provided by a nurse practitioner" however this was an assumption of the survey from the leading questions. What it does show is that patients are open to and interested in this type of care and service.

From the literature review, high touch healthcare proved that increased engagement lead to decreased costs associated with healthcare (Ghaney, 2018). The data cited respondents filtered from the Harrisburg region showed 28.17% favored the service of DPC as it was described in the

question, further qualifying patients' interest. The data as a whole showed that respondents understood the concept of DPC, and a significant percentage of the population was interested in this model of care. Discussed previously was the concept of burnout amongst healthcare providers and in one study was found to be approximately 20% (Edwards, 2018). When comparing the provider downside, specifically of burnout, the literature suggests high touch healthcare coupled with smaller patient panel sizes, supports a decrease in provider burnout which is exactly what the DPC Model provides.

In the future, the questions should be reworded to specifically reflect Direct Primary Care service provided by a nurse practitioner rather than it being assumed. Additionally in the future, performing a study that examined the cost of the access and the value of engagement with the provider offered by DPC plus the cost of paycheck health insurance deductions to see if patients saved money and did not need to meet their out of pocket deductible. In such a study, examination of monthly insurance premium costs plus DPC would be a dollar amount and this dollar amount would be compared to what dollar amount was spent as would have been applied to the patients out of pocket deductible. This would determine if the added cost of DPC would still prove to be cost effective based upon the value of access and engagement it provides. Essentially, performing a study on payroll deduction for insurance, plus the cost of DPC, would be less than the out of pocket deductible a patient would need to meet prior to the insurance paying for routine care.

In Pennsylvania, insurance products are static, meaning the plans are set with little variation on what services they cover. For 2020, there were some 17 companies offering individual plans and in the small market sector, 21 companies offering plans. These plans must comply with the Affordable Care Act and be approved by the insurance department at the state

level for Pennsylvania (Affordable Care Act Health Rate Filings (2020), n.d.). Rules exist that catastrophic plans can only be obtained by persons under the age of 30 or who have had a qualifying life change situation classified as a hardship exemption. Moving forward, considering the thought of pairing catastrophic plans with DPC would be an interesting study. From a cost savings standpoint it appears the fee for access to care through DPC plus the cost of a catastrophic plan would be less expensive than traditional insurance and still provide for major medical coverage.

Continued surveillance on the performance of nurse practitioners in Primary Care settings is needed to ensure the population's needs are being met, specifically regarding attrition of providers and continued quality of care. As Nurse Practitioners gain ground with autonomy and full practice authority, primary care practices run by nurse practitioners and their business model development along with sharing of this information to ensure successful practice opening and operation is paramount. Protection of the consumer, the patient, is gained by malpractice insurance and board certifications of the providers, specifically nurse practitioners.

Ultimately, the success of a nurse practitioner Direct Primary Care practice lies in the perceived value of the consumer, a factor that dictates if the consumer will continue to pay the provider for the service. The information gained from the survey follows work discussed previously on engagement and value. Healthcare is about relationships, having engagement and high touch care has been proven to better health outcomes. The DPC model provided by a nurse practitioner provides transparency in price and an outlet for consumer choice as well as engagement and is believed to prevent burnout in healthcare providers, specifically, nurse practitioners.

In Summary, the research answered the research question on awareness of nurse practitioner services in Pennsylvania. Gender and age balanced responses were obtained through the SurveyMonkey Audience feature which also provided a representation of major geographical areas of the state. Respondents are aware of the services nurse practitioners provide while not identified as the primary care provider by the majority, but by half the number of respondents who identified a physician as their primary care provider. Respondents seek healthcare predominantly in the office setting which is the most cost-effective venue to receive care. Access issues were identified by respondents trying to schedule same day or next day appointments and the data pointed toward provider migration issues when patients were unable to schedule back with a provider they had seen previously. Healthcare is nearly equally paid for in Pennsylvania by commercial insurance and medical assistance while a little less than 10% pay for their care with cash and the same were unaware of how their care was paid for. Overall, the perception of value in care was positive but approximately 21% found it to be average. Respondents understood the concept of Direct Primary Care (DPC) compared to Fee for Service (FFS) in Pennsylvania and more than 30% found the DPC model more attractive than their current method to obtain care. From a price standpoint, market value for the DPC service was noted overwhelmingly at $40 per month and $100 per month if the service came to them. This was further believed to be a result of the range presented in the questions and not a true representation of market value. This study shows that nurse practitioners are accepted professionals delivering quality healthcare to Pennsylvanians and the marketplace most certainly has room for Direct Primary Care provided by a nurse practitioner.

## References

(n.d.).

*Affordable Care Act Health Rate Filings (2020)*. (n.d.). Retrieved from Insurance.pa.gov: https://www.insurance.pa.gov/Consumers/Pages/ACA-Rate-Filings-2020.aspx

Alexander, G. K. (2005). Physicians in Retainer ("Concierge") practice. A National Survey of Physician, Patient, and Practice Characteristics. *Journal of General Internal Medicine, 20*(12), 1079-1083. doi:doi:10.1111/j.1525-1497.2005. 0233.x

Betz, E. (2018, 05 17). *Advantages and Limitations of the Direct Primary Care Model*. Retrieved from MGMA: https://www.mgma.com/data/data-stories/advantages-and-limitations-of-the-direct-primary-c

Bhagavathula, A. A. (2018). Prevalence of Burnout Syndrome Among Health-care Professionals Working at Gondar University Hospital, Ethiopia. *Journal of Education and Health Promotion, 7*, 145. doi:doi: 10.4103/jehp.jehp_196_18

Boccuti, C., Fields, C., & Casillas, G. &. (2015, October 30). *Primary Care Physicians Accepting Medicare: A Snapshot*. Retrieved from Kaiser Family Foundation: https://www.kff.org/medicare/issue-brief/primary-care-physicians-accepting-medicare-a-snapshot/

Bouvier, K. (2017, February). *The New Face of Primary Care*. Retrieved from Strictly Business: http://www.sbmonthly.com/new-face-primary-care/

Brown, S. &. (1995). *Quality of Nurse Practitioner Practice*. Retrieved from AANP: https://www.aanp.org/advocacy/advocacy-resource/position-statements/quality-of-nurse-practitioner-

practice#:~:text=A%20meta%2Danalysis%20of%2038,greater%20than%20those%20of%20physicians.

Carlson, R. P. (2015). Direct Primary Care Practice Model Drops Insurance and Gains Providers and Consumers. *Physician Leadership Journal*, 20-26.

Cole, E. (2018). Direct Primary Care: Applying Theory to Potential Changes in Delivery and Outcomes. *Journal of the American Board of Family Medicine, 31*(4), 605-611.

Cooke, C. (2015, August 20). Retrieved from Managed Healthcare Executive: https://www.managedhealthcareexecutive.com/view/ten-ways-nps-reduce-costs-improve-quality

*Direct Primary Care*. (2018). Retrieved from AAFP: https://www.aafp.org/about/policies/all/direct-primary.html

*Direct Primary Care Delivering Exceptional Care. On Your Terms*. (n.d.). Retrieved from AAFP: https://www.aafp.org/practice-management/payment/dpc.html

Downs, B. (2018, June 15). *The Benefits of Direct Primary Care*. Retrieved from Business Benefits Group: https://www.bbgbroker.com/direct-primary-care-benefis/#:~:text=Compared%20to%20traditional%20fee%2Dfor,of%20their%20inability%20to%20pay.

Dyrbye, L. N., & Shanafelt, T. D. (2011). Physician Burnout: A Potential Threat to Successful Health Care Reform. *JAMA, 305*(19), 2009-2010. Retrieved 7 10, 2020, from https://jamanetwork.com/journals/jama/fullarticle/1161849

Edwards, S. M. (2018). Burnout Among Physicians, Advanced Practice Clinicians and Staff in Smaller Primary Care Practices. *Journal of General Internal Medicine, 33*, 2138-2146. doi:https://doi.org/10.1007/s11606-018-4679-0

Friedberg, M. S. (2014). Association Between Participation in a Multipayer Medical Home Intervention and CHanges in Quality, Utilization and Cost of Care. *JAMA, 311*(8), 815.

Ghaney, R. T. (2018). High-Touch Care Leads to Better Outcomes and Lower Costs in a Senior Population. *American Journal of Managed Care, 24*(9), e301-e304. Retrieved from http://search.ebscohost.com.proxyclarion.klnpa.org/login.aspx?direct=true&db=ccm&AN=138619783&site=eds-live&scope=site

Guttman, D. (n.d.). *Employers Struggle to Measure the ROI of Healthcare Benefits*. Retrieved from First Stop Health: https://www.fshealth.com/blog/employers-struggle-measure-roi-health-benefits

*Healthcare.gov Glossary*. (n.d.). Retrieved from Healthcare.gov: https://www.healthcare.gov/glossary/fee-for-service/#:~:text=Get%20Answers-,Fee%20For%20Service,include%20tests%20and%20office%20visits.

*History of health care reform in the United States*. (n.d.). Retrieved from Wikipedia: https://en.wikipedia.org/wiki/History_of_health_care_reform_in_the_United_States#:~:text=health%20care%20proposals-,Earliest,plan%20in%20the%20United%20States.

*House Bill 100*. (2019). Retrieved from Pennsylvania General Assembly: https://www.legis.state.pa.us/CFDOCS/billInfo/billInfo.cfm?syear=2019&sInd=0&body=H&type=B&bn=100

*IRB*. (n.d.). Retrieved from Clarion University: https://www.clarion.edu/faculty-staff/faculty-research-and-development/irb/IRB.pdf

*Issues at a Glance: Full Practice Authroity*. (2019, December). Retrieved from AANP: https://www.aanp.org/advocacy/advocacy-resource/policy-briefs/issues-full-practice-brief

Kane, C. &. (2018). The Use of Telemedicine by Physicians: Still the Exception Rather Than the Rule. *Health Affairs, 37*(12), 1923-1930.

Kane, L. (2020, January 15). *Medscape National Physician Burnout & Suicide Report 2020: The Generational Divide*. Retrieved from Medscape: https://www.medscape.com/slideshow/2020-lifestyle-burnout-6012460#1

Kindig, D. &. (1986). Administrative Medicine: A New Medical Specialty? *Health Affairs, 5*(4), 146-156.

Kwietniewski, L. H. (2016). Estimation of a Physician Practice Cost Function. *The European Journal of Health Economics, 18*(4), 481-494. doi:doi: 10.1007/s10198-016-0804-3

Lange, T. C. (2020). Primary Care Physician Compensation Reform: A Path For Implemenation. *University of Calgary The School of Public Policy Publications, SPP Research Paper*.

Liliedahl, R. &. (2019, July 1). *The Critical Role of the Patient-Physician Relationship*. Retrieved from Axene Health Partners: https://axenehp.com/critical-role-patient-physician-relationship/

Lockner, A. &. (2018, September 26). Retrieved from Bloomberg Law: https://news.bloomberglaw.com/health-law-and-business/insight-the-healthcare-industrys-shift-from-fee-for-service-to-value-based-reimbursement

Martin, B. &. (2019, January 01). The Economic Burden and Practice Restrictions Associated with Collabortive Practice Agreements: A National Survey of Advanced Practice Registered Nurses. *Journal of Nursing Regulation, 9*(4), 22-30. doi:https://doi.org/10.1016/S2155-8256(19)30012-2

Meyer, H. (n.d.). *Health Systems Move Slowly Toward "High-touch" Primary Care*. Retrieved from Modern Healthcare:

https://www.modernhealthcare.com/article/20181020/NEWS/181019906/health-systems-move-slowly-toward-high-touch-primary-care

Moore, C. C. (2011). Recommendations for planning pilot studies in clinical and translational research. *Clinical and translational science, 4*(5), 332-337. doi:https://doi.org/10.1111/j.1752-8062.2011.00347.x

O'Malley Ann S., R. S. (2017). Proiver Experiences with Chroinic Care Management (CCM) Services and Fees: A Qualitative Research Study. *Journal of General Internal Medicine*, 1294-1300.

PaladinaHealth. (2015, 12 09). *Measuring Patient Satisfaction in a Direct Primary Care Medical Home Model*. Retrieved from Paladina Health: https://www.paladinahealth.com/blog/measuring-patient-satisfaction-direct-primary-care-medical-home-model

*QuickFacts Pennsylvania*. (n.d.). Retrieved from United States Census Bureau: https://www.census.gov/quickfacts/PA

Reith, T. P. (2018, December 04). *Burnout in United States Healthcare Professionals: A Narrative Review*. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6367114/

Rich, R. A. (2010). US Approaches to Physician Payment: The Deconstruction of Primary Care. *Journal of General Internal Medicine*, 613-618.

Roberts-Grey, G. (2020, 05 19). *What is Direct Primary Care? A Patient's Guide to DPC.* Retrieved from GoodRx: https://www.goodrx.com/insurance/direct-primary-care

Rowe, K. R. (2017). Direct Primary Care in 2015: A Survey with Selected Comparisons to 2005 Survey Data. *Kansas Journal of Medicine, 10*(1), 3-6.

*Roy's Adaptation Model of Nursing*. (2016). Retrieved from Nursing Theory: https://nursing-theory.org/theories-and-models/roy-adaptation-model.php

*Sample Size Calcuator*. (n.d.). Retrieved from SurveyMonkey: https://www.surveymonkey.com/mp/sample-size-calculator/

Sullivan, G. M. (2011). A Primer on the Validity of Assessment Instruments. *Journal of Graduate Medical Education*, 119-120.

Torrey, T. (2020, March 02). *Why Is It So Difficulty to Find a Primary Care Physician?* Retrieved from Verywell Health: https://www.verywellhealth.com/why-is-it-difficult-to-find-a-primary-care-physician-2615101

*Using Telehealth to Expand Access to Essential Health Services during the COVID-19 Pandemic*. (2020, June 10). Retrieved from CDC: https://www.cdc.gov/coronavirus/2019-ncov/hcp/telehealth.html

Whitehead, A. L. (2016, June 19). Estimating the sample size for a pilot randomised trial to minimise the overall trial sample zise for the extranal pilot and main trial for a continuous outcome variable. *Statistical methods in Medical Research*, 1057-1073. doi:https://doi.org/10.1177/0962280215588241

## Appendix

**A: Survey Question 1, Consent to complete the survey.....45**

**B: DNP research project questionnaire.....46**

**C: CITI training certificate(s).....50**

**D: Permission to Conduct Research Using SurveyMonkey Letter.....51**

**E: IRB Approval to proceed with project.....52**

## Appendix A: Survey Question 1, Consent to complete the survey

Consent: Your responses to this survey are anonymous. You have been selected through SurveyMonkey Audience to participate based upon inclusion criteria by the researcher. This survey seeks information about participants knowledge of Nurse Practitioner Services and their willingness to consider the primary care practice model of Direct Primary Care provided by a Nurse Practitioner. Completion of the survey is voluntary; you may skip questions that make you feel uncomfortable and it is not timed. The information in the survey has been approved by the Clarion University Institutional Review Board which can be reached by phone at 814-393-2337 with any questions or concerns. IRB Project number 02-20-21

Do You consent to answer the following survey questions?

a) YES

b) NO

## Appendix B: DNP research project questionnaire

1. Consent: Your responses to this survey are anonymous. You have been selected through SurveyMonkey Audience to participate based upon inclusion criteria by the researcher. This survey seeks information about participants knowledge of Nurse Practitioner Services and their willingness to consider the primary care practice model of Direct Primary Care provided by a Nurse Practitioner. Completion of the survey is voluntary; you may skip questions that make you feel uncomfortable and it is not timed. The information in the survey has been approved by the Clarion University Institutional Review Board which can be reached by phone at 814-393-2337 with any questions or concerns. IRB Project number 02-20-21

   Do You consent to answer the following survey questions?

   a) YES

   b) NO

**Definitions:**

Primary Care: Routine medical care given by a healthcare provider.

Nurse Practitioner: A registered nurse who has a masters or higher degree who performs assessment, diagnosis, and treatment of medical problems.

Fee for Service (FFS): A healthcare payment model where insurance coverage is used to pay for services rendered by a healthcare provider

Direct Primary Care (DPC): A healthcare payment model where patients pay a monthly fee directly to their provider and services are inclusive.

Commercial insurance: Healthcare insurance not provided by the government, paid for by individuals or the employer

2. Gender:
   a) Male
   b) Female

3. Age Range:
   a)18-23 b)24-29 c)30-35 d)36-41 e)42-47 f)48-53 g)54-59
   h)60-65 i) 66-70 j)71-76 k)77-82 l) 83-88

4. What Town do you live closest to?
    a) Erie
    b) Pittsburgh
    c) Harrisburg
    d) Allentown
    e) Philadelphia?
5. Are you aware Nurse Practitioners in Pennsylvania provide primary care services including:
    -evaluation and treatment of acute and chronic problems,
    -ordering of labs and diagnostic tests,
    -simple office-based procedures as well as prescribing medication?
    a) YES
    b) NO

6. Who do you see for your healthcare such as colds, physicals, blood pressure?
    a) Physician

    b) Nurse Practitioner

    c) Physician Assistant

    d) Unsure

7. Where do you usually go for healthcare needs?
    a) Office setting

    b) Urgent Care location

    c) Drug store Clinic

    d) Emergency Room

8. In the past 2 years did you call to schedule an appointment only to find out that your healthcare provider was no longer at the office?
    a) YES
    b) NO

9. In the past 2 years have you called to schedule an appointment and told the next available was more than 24 hours?
    a) YES
    b) NO

10. Who pays for your healthcare?
    a. Commercial Insurance (purchased by employer or yourself
    b. Medical Assistance program (Medicare or Medicaid)
    c. Cash
    d. Unsure

11. Do you find value in the healthcare services you receive based upon the price you pay?
    a. Absolutely worth the value
    b. Good value but some things could be better
    c. Average
    d. Below average value
    e. No value for the cost

12. Direct Primary Care is a healthcare delivery model where patients in a practice pay a monthly fee in exchange for unlimited primary care services including visits and contact with their care provider.

    Insurance is never billed for these services. This is different from the fee for service model where patients present an insurance card, sometimes have a copay and insurance is used to cover costs once any deductible is met if your plan has one.

    Do you understand the difference between the two models?

    a) YES
    b) NO

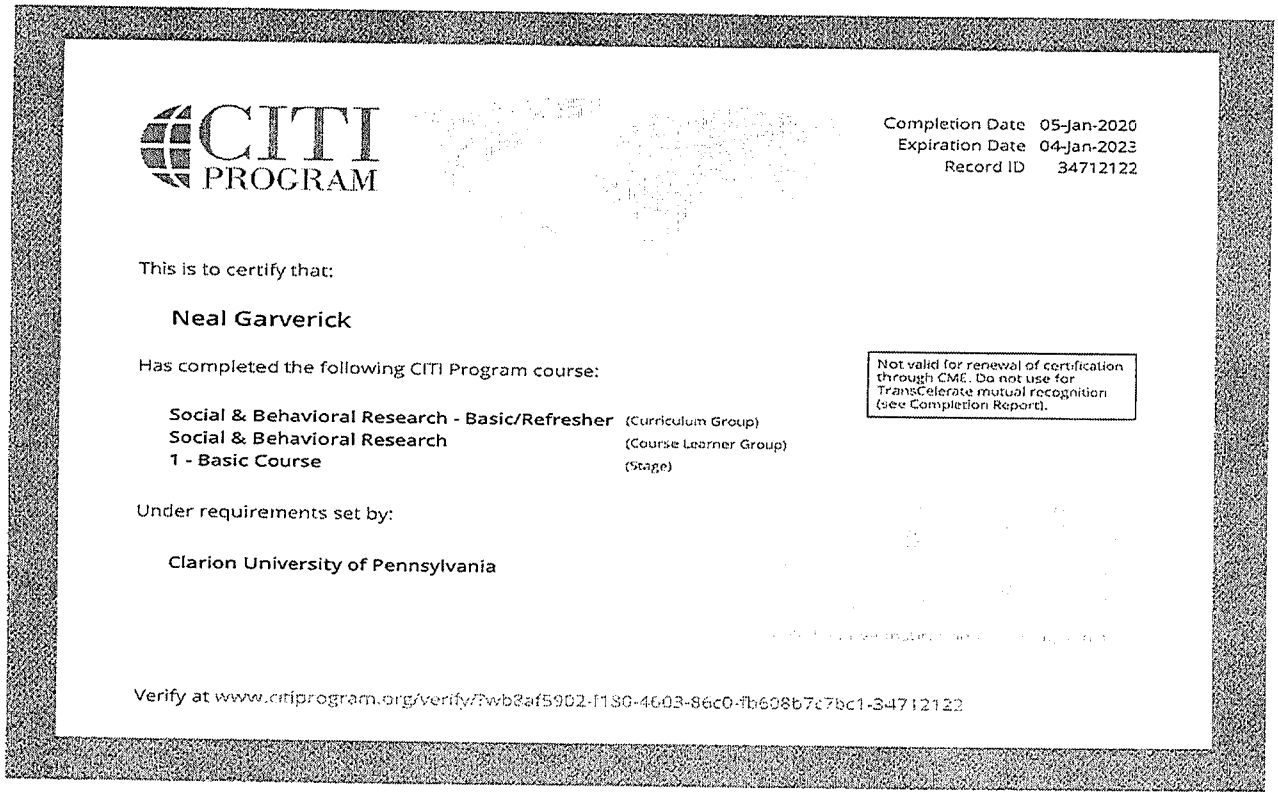
13. Direct Primary Care is **not** a replacement for insurance. For a fee, the Direct Primary Care model provides flexibility and time to develop a more engaged relationship with your provider including increased access like convenient same day appointments and rapid consultation to your primary healthcare needs through in person visits, phone, text, and email.

    How attractive is Direct Primary Care compared to your current means of accessing care?
    a. More attractive
    b. Same
    c. Less attractive

14. If you were purchasing Direct Primary Care for yourself, what monthly fee would you pay?
    a. $40
    b. $50
    c. $60
    d. $70
    e. $80
    f. $90
    g. $100

15. What if the service came to you at home, what would you be willing to pay monthly for this service?
    a. $100
    b. $125
    c. $150
    d. $175
    e. $200
    f. $225

# Appendix C: CITI Program Certificates



CITI PROGRAM

Completion Date 05-Jan-2020
Expiration Date 04-Jan-2023
Record ID 34712122

This is to certify that:

Neal Garverick

Has completed the following CITI Program course:

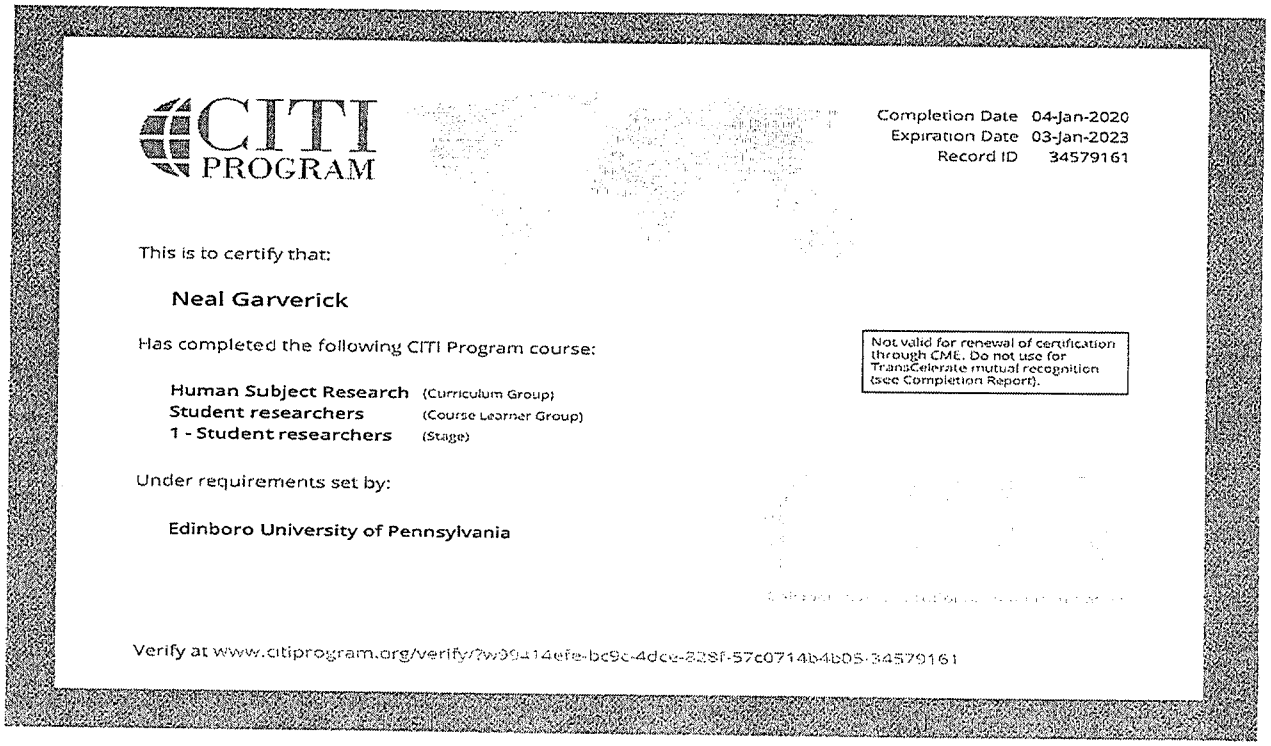
Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Social & Behavioral Research - Basic/Refresher (Curriculum Group)
Social & Behavioral Research (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Clarion University of Pennsylvania

Verify at www.citiprogram.org/verify/?wb8af5902-f180-4603-86c0-fb608b7c7bc1-34712122



CITI PROGRAM

Completion Date 04-Jan-2020
Expiration Date 03-Jan-2023
Record ID 34579161

This is to certify that:

Neal Garverick

Has completed the following CITI Program course:

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Human Subject Research (Curriculum Group)
Student researchers (Course Learner Group)
1 - Student researchers (Stage)

Under requirements set by:

Edinboro University of Pennsylvania

Verify at www.citiprogram.org/verify/?w99414efe-bc9c-4dce-825f-57c0714b4b05-34579161

# Appendix D: Permission to Conduct Research Using SurveyMonkey

**SurveyMonkey Inc.**
www. surveymonkey.com

**For questions, visit our Help Center**
help.survemonkey.com

**Re: Permission to Conduct Research Using SurveyMonkey**

To Whom It May Concern:

This letter is being produced in response to a request by a student at your institution who wishes to conduct a survey using SurveyMonkey in order to support their research. The student has indicated that they require a letter from SurveyMonkey granting them permission to do this. Please accept this letter as evidence of such permission. Students are permitted to conduct research via the SurveyMonkey platform provided that they abide by our Terms of Use at https://www.surveymonkey.com/mp/legal/terms-of-use/.

SurveyMonkey is a self-serve survey platform on which our users can, by themselves, create, deploy and analyze surveys through an online interface. We have users in many different industries who use surveys for many different purposes. One of our most common use cases is students and other types of researchers using our online tools to conduct academic research.

If you have any questions about this letter, please contact us through our Help Center at help.surveymonkey.com.

Sincerely,

**SurveyMonkey Inc.**

# Appendix E: IRB approval Project Number 02-20-21

CLARION UNIVERSITY OF PENNSYLVANIA
## Institutional Review Board

**DATE:** October 22, 2020

**FROM:** Laurie Pierce, PhD, RN
Institutional Review Board

**TO:** Neal R. Garverick

**RE:** ARA Approved

Your application for Research Approval for the exempt study, An Investigation of Community Members' Knowledge and Willingness to Consider the Alternative Pay Model for Direct Primary Care, Provided by a Nurse Practitioner

**Be sure that you include your IRB project number 02-20-21 in your project cover letter and in any correspondence with the Administrative Office. Also, please include your approval number from the initial application, if submitting an addendum. Your IRB project number should appear on your informed consent and/or your survey instrument.**

Please review the following IRB policy guidelines, which cover your responsibilities as primary investigator:

**You must file written permission, which serves as consent, from the institution or facility with the Administrative Office (included in your IRB application). You must also retain all signed consent forms, if required for participation, for a period of three years after the end of the research approval period.**

**If your research extends beyond one year, you must submit a request for extension and an annual progress report.**
Principal investigators are responsible for reporting the progress of the research to the Administrative Office no less than once per year. Problems involving risks or changes in the research must be reported immediately.

**You must promptly report injury and/or unanticipated problems involving risks.** Principal investigators are responsible for promptly reporting (in writing) to the Administrative Office, through their department heads, any injuries to human subjects and any unanticipated problems, which involve risks to the human research subjects or others.

**You must report changes in the research.**
Research investigators are responsible for promptly reporting (in writing) to the Administrative Office, through their department heads, any proposed changes in a research activity.

Changes in research during the period for which IRB approval has already been given **shall not be initiated** by the research investigators **without IRB review and approval**, except where

necessary to eliminate apparent immediate hazards to the subject. In such occurrence the IRB is to be notified as soon as possible.

**You must report noncompliance with this assurance.**
Research investigators and department heads are responsible for reporting promptly to the Administrative Office and the IRB any serious or continuing noncompliance with the requirements of this assurance or the determinations of the IRB.

**If your project is under continuing review (Expedited and Full-Board Applications), you may be requested to produce evidence that your research is following the guidelines provided in your application.** If your project is chosen for an audit, you will be notified.

**You must submit a research conclusion form, available on the IRB site, once your research project is completed. Please submit the research conclusion form to irb@clarion.edu.**

Clarion University of Pennsylvania
840 Wood Street, Clarion, PA 16214
814-393-2343 (Phone)