RURAL HEALTHCARE ASSESSMENT:

IDENTIFYING GAPS BETWEEN

SERVICE AND EXPECTATIONS

by

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A thesis submitted in partial fulfillment
of the requirements for the degree

of

Master of Science

in

Industrial and Management Systems Engineering

MONTANA STATE UNIVERSITY
Bozeman, Montana

April 2020

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ACKNOWLEDGEMENTS

I would like to thank my advisor David Claudio for his guidance, support, and belief in me while completing this important project. To my family, friends, and peers—thank you all for reminding me about the value of education, for keeping me in your thoughts and prayers, and always believing in the path I travel.

A special thank you to those at the Indian Health Service – Blackfeet service unit. For being supportive of the research and the aid in getting it started. Having been a former employee of and then an opportunity to help it improve has been a great joy.

To my children, Janeek and Robert, who have also sacrificed much through this process. May your futures also hold great things to challenge you, make you grow, and inspire others.

FUNDING ACKNOWLEDGEMENT

This work would not have been possible without the mentorship and financial support of those involved in the Alfred P. Sloan Indigenous Graduate Partnership (SIGP), the Montana IDeA Network of Biomedical Research Excellence (INBRE), and the Dennis & Phyllis Washington Foundation Native American Graduate Fellowship.

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ABSTRACT

This research project aims to improve patient satisfaction for customers in same-day clinics in rural areas, with emphasis on healthcare services and facilities at Native American Reservations. This project examined potential gaps between clinical staff services and the expectations of the patients. Due to the remote location and low-income level of the community, it is critical for patients to receive care at local healthcare facilities and not have to travel to other facilities for the same care. The low Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) satisfaction scores also lead to less funding to the facility as well as lower-ranking in accreditation by Centers for Medicare and Medicaid Services (CMS). Utilizing survey tools and statistical analysis from Industrial and Management Systems Engineering the study looked to understand expectations on both sides. The initial phase used four open-ended questions along with a series of multiple-choice questions that were given to participants, both patients and staff. Data collected in the first phase showed a possible disconnect between the patients and staff from their responses. It also allowed the patients to rate service prior to the visit. Results showed some areas could have potential improvement but also the performance of staff is overall doing well with what they can control. The second phase revealed a more aligned view between the patients and staff in a ranking survey compiled from the first phase of the research. The ranking information allowed nonparametric testing to see if there existed statistically significant differences between the two groups. Results showed one significantly different item and two others that were borderline. The Service Value Gaps are not as prominent in this single clinic to warrant an in-depth improvement process. More information should be collected through other clinics to allow larger sample size to gain additional insight if multiple gaps exist. The items of actual or near significance were not a higher priority to either group.

CHAPTER 1: INTRODUCTION

The ability to receive critical healthcare for rural areas is a crucial matter because people live in isolated regions. What can be even more challenging is when much of the population suffers from economic poverty. This reduces an individual's ability to receive the valued healthcare that they need in a timely manner. These types of issues can lead the attention of the patient's satisfaction of the service to be less valuable. With a lower satisfaction in the service, patients are more inclined to delay seeking a physician for health issues until they can afford to be seen in a different healthcare facility. For rural areas, such as those found in the state of Montana, the amount of travel could turn a one-hour doctor visit into a full-day affair. In addition to the travel time, especially for low-income communities, the visit becomes a financial burden.

Native American communities found on reservations with the federally funded Indian Health Service (IHS) fall within the category of rural healthcare systems. In many cases, low-level satisfaction is a result of a disconnect in what patients look for through the service compared to what the clinic determined to be the appropriate service. The aim of this study is to assess the satisfaction levels for one IHS facility in Montana by studying potential gaps between the expectations of the patient and the services the healthcare facility is providing.

With the growing focus on patient satisfaction in the healthcare service, it has become increasingly critical to ensure high levels of performance and positive outcomes. Since 2008, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) has offered a valid standard comparison tool for satisfaction criteria collection

and reporting [1]. This report allows patients to compare the performance of healthcare facilities based on 32 criteria critical to the patient and consumer. It also reports on the satisfaction levels to the public and accreditation through Centers for Medicare and Medicaid Services (CMS). CMS ensures that healthcare facilities meet specified guidelines in the provider's operations and performance. This relates to potential reimbursement for higher satisfaction ratings for high performing clinics. With lower levels of satisfaction than the state and national averages, communities such as the one on the Blackfeet Reservation can potentially benefit from changes that would improve satisfaction levels, as seen in Figure 1 below [2].

	P H S INDIAN HOSPITAL AT BROWNING - BLACKFEET	MONTANA AVERAGE	NATIONAL AVERAGE
Patient survey summary star rating. More stars are better. Learn more	Not Available[15]		
Patients who reported that their nurses "Always" communicated well	58%[6]	80%[20]	80%[20]
Patients who reported that their doctors "Always" communicated well	70%[6]	82%[20]	82%[20]

Figure 1: CMS Report - Blackfeet Healthcare

With a strong focus on isolating gaps in the service between the interaction of the patient and healthcare staff, the aim is to improve the satisfaction while still allowing the healthcare staff to provide the needed services. By doing so, there is potential for improvement of the patient's experience with their local clinics. This, in turn, could

improve the satisfaction rating of the facility, which is standardized and reported not only for public use but for accreditation and reimbursement purposes. It is also critical to set up a standard procedure that allows for new staff members at these facilities to quickly learn and apply the needed patient-provider interactions. This study could bring awareness of such oversights to critical elements and identify potential training to resolve such issues. The higher turnover rate of staff, mainly provider staff, at IHS facilities make a true compassionate patient and provider relationship difficult. It also creates a system of mistrust or inconsistencies in communication that ultimately leads to fewer visits to the clinic that further makes it difficult for the organization to provide the services for which it was designed.

A Service Value Gap (SVG) assesses potential disconnect between what patients expect from the service and what providers deliver. Gap 1 focuses on bringing forward what the expectations of the patient are with regard to the service staff. Gap 2 identifies what service the staff is expected to do for their own performance reviews and what they think the patient wants. Part of this gap could be the design of service when caring for patients within the system. These three areas define the SVG, which is the target of improvement: to increase the satisfaction levels of patients to the facility potentially. As seen in Figure 2 [3, 4], the aim is to isolate what criteria are being missed between expectations and the resulting perceptions for both the patient and provider.

Setting up a structure that will allow better expression of what patients want from the healthcare provider's service and establishing the relationship for the service provided will create better identification for areas of improvement. The use of Industrial and

Management Engineering tools were used to identify critical areas to improve the satisfaction rating of rural healthcare facilities.

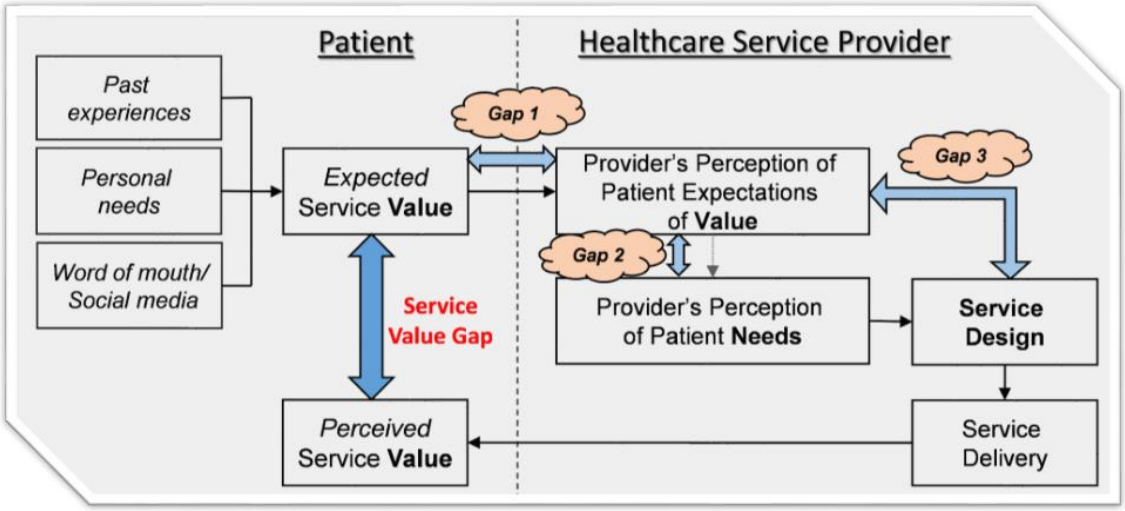


Figure 2: Service Value Gap Diagram

The objective was to bridge assumptions from patients and the service provided. Interviewing and surveying staff and patients allowed expectations of service to be measured according to the clinic's ability to meet those expectations. Assessing patients' satisfaction throughout the entire process allows the organization to improve the system instead of just focusing on good outcomes and lower repeat visits for the same causes. The goal was to potentially create a more patient-centered approach to healthcare improvement that will involve more input from the patients throughout the process.

CHAPTER 2: LITERATURE REVIEW

The following work completed by others show a great deal of use from patient feedback in clinical visits. The literature also demonstrates how a strong patient-centered or involved process significantly aids in the increased satisfaction and improvement of healthcare facilities. A number of articles indicate the use of the HCAHPS survey as a base tool for further studies, which will also be a basis for this study. An HCAHPS example survey can be found at the link https://www.hcahpsonline.org/globalassets/hcahps/survey-instruments/mail/jan-1-2018-and-forward-discharges/click-here-to-view-or-download-the-updated-english-survey-materials..pdf.

Giordano et al. [1] describe the history and development of the CAHPS Hospital Survey (also known as HCAHPS) and its associated protocols. They described the randomized mode experiment, vendor training, and "dry runs" that set the stage for initial public reporting. The rapid linkage of HCAHPS data to annual payment updates ("pay for reporting") was noted, which led to the participation of approximately 3,900 general acute care hospitals (about 90% of all such United States hospitals). The authors highlighted the opportunities afforded by these publicly reported data on hospital inpatients' experiences and perceptions of care. This data, reported on www.hospitalcompare.hhs.gov, facilitate the national comparison of patients' perspectives of hospital care and can be used alone or in conjunction with other clinical and outcome measures. Potential benefits include increased transparency, improved consumer decision making, and increased incentives for the delivery of high-quality healthcare.

A scoping review of the literature published in English since 1990 was conducted using Medline, CINAHL, and EMBASE by Constand et. al. A key term search strategy they had employed was using “patient-centered care”, “client-centered care”, “framework” and “model” to identify relevant studies [7]. The purpose was to describe how three identified tenants of patient-centered care provision: communication, partnership, and health promotion are addressed in patient-centered care models/frameworks across the literature. The articles had identified 25 different patient-centered care frameworks/ models. This scoping review serves as a basis that there is no one correct way to approach a patient-centered design and that new models are continually being designed. This information serves as a purpose to continuously investigate improvement processes and assess them regularly.

Sommaruga et al. [5] investigated whether healthcare professionals' emotional intelligence (EI) is associated with the self-perceived provision of patient-centered care (PCC), taking into account the potential mediating effect of general self-efficacy (GSE). They utilized three questionnaires to understand the provider-patient relationship. Using a providers Emotional Intelligence scale it was shown that the higher the score the greater the provider can relate or appear compassionate to the patient. This is then tied to higher patient satisfaction score. This was tested on 318 healthcare professionals in various hospitals in Italy, supporting the possibility to improve on PCC through EI. The study shows how healthcare professionals can self-assess for certain criteria, particularly that which the patients look for from the care and service they receive.

Cliff looked to identify key factors that achieved exceptional patient and family experience during hospital care [6]. Previous studies have shown that leadership plays a key role in effective and ongoing patient-centered care. Showing that constant commitment and engagement from senior staff to front line supervisors are needed to ensure follow-through to successful implementations and maintenance. Results demonstrate that not only direct staff is needed to ensure increased satisfaction, but leaders within the system are needed to support this concept.

Berghout, van Exel, Leensvaart, & Cramm aimed to show the relative importance of the eight dimensions of PCC according to hospital-based healthcare professionals and examine whether their viewpoints were determined by context [8]. Thirty-four healthcare professionals working at a large teaching hospital in New York City were interviewed using Q methodology. Participants were asked to rank 35 statements representing eight dimensions of PCC extracted from the literature. Healthcare organizations wishing to improve PCC should consider the relative importance of PCC dimensions in their specific context of care provision, which may help to improve levels of patient-centeredness in a more efficient and focused manner. Results demonstrate how various departments may view patient-centered care in different lights and expressed the importance of having all staff on the same page when approaching PCC.

Stichler [10] stated that PCC leads to higher patient satisfaction levels, decreased costs and shorter hospital stays. She described a systematic approach top to bottom of the organization to establish and maintain a PCC approach in healthcare facilities. She

reiterated the need for not only provider staff but also executive staff to be involved in the process of providing service to patients and meeting their expectations of care.

Baker [9] described how the use of the internet allows individuals the ability to take the initiative into looking to providing better self-care. Surveys show that reasons given that patients would like to be able to access their health record information were related to higher costs, insurance coverages, or an opportunity to ask simple questions that did not require a full visit to the physician. Results of this study demonstrate the patient's desire to be part of the healthcare process. These results can also be related to residents of smaller rural communities with strong communal ties and wanting to have input in the process.

Otani et al. [11] looked at improving healthcare due to the emergence of competitors and the desire to have repeat 'customers' (patients). They looked to isolate what elements gain the healthcare facility a rating of excellent and rather than just satisfactory. Utilizing patient satisfaction survey data from multiple hospital facilities, the authors used multiple regression analysis to find which attributes affect patients' rating the most. They found that two distinctive factors had the most influence; (1) staff care and (2) nursing care. Results indicate that patients had a higher likelihood of having greater satisfaction if they felt they had been treated well during their visit. This relates to the research goal of identifying which markers would have the greatest influence on better satisfaction ratings in a small rural healthcare facility.

Al-Abri and Al-Balushi [12] investigated the overall effectiveness of satisfaction surveys in healthcare improvement. They found that feedback from patient satisfaction surveys is an established yardstick for healthcare quality improvement plans, yet they are

still not being systematically and extensively utilized for developing improvement initiatives. The study also found that items involving nursing staff had the most impact on satisfaction overall. Creating a systematic survey tool will increase the probability of collecting valuable information that could be used to make effective satisfaction improvement changes.

Ungureanu and Mocean's study [14] explored satisfaction and return factors associated with patients selecting and maintaining loyalty to a dental provider. They used computer-aided telephone interviews and questionnaires to complete their study. Their findings showed that even though skills of the staff were rated highest, recommendation, patience and respect also constitute a significant portion of what patients look for in a dental provider. The results from this research show that individuals who look to receive a certain level of expected care, recommended others to use the same facility when they feel high satisfaction for their own experience. This is very relevant to maintaining higher satisfaction in rural communities where community members talk freely about their life experiences.

Junewicz and Youngner [17] argue that relying too heavily on satisfaction surveys could lead to poor health practices since providers would be focusing too much on what patients want to achieve higher scores. This argument implies that "patient wants" need to be considered but only with respect to what the healthcare staff can do to treat patients effectively. Bringing awareness of patient desires throughout the service is valuable, yet the goal of the service facility still needs to be a strong consideration whenever creating improvement projects.

Okougha [18] provided a summary of how a healthcare facility moved to improve their patient satisfaction through staff training. The important detail here is to be able to maintain a system to which staff will adhere to and not revert to old practices. By initiating a change and setting a program that encourages positive behavior and challenges negative behavior, they improved the satisfaction of patients as well as developed a system that will be the norm. Aiming for continuous improvement shows how having regular assessments and maintaining a culture of improvement is crucial to keeping in line with positive performance.

Gwendolyn et al. [16] looked to develop an effective process that could be set in place to increase patient satisfaction in more real-time means. They developed a system to incorporate patient input for the satisfaction and development of groups that would meet to establish steps to address shortcomings and provide corrections by the next staff meeting. This was to be done on a quarterly basis so that information did not stagnate, and new issues can be addressed with improvement steps. This type of procedure would be similar to developing a continuous improvement system for smaller healthcare facilities and could be revisited more often in tandem with staff meetings.

Asinas et al. [13] looked to establish a process to effectively administer satisfaction surveys then provide steps to improve the rating of the service provided. By doing so in three phases, they achieved an increase in satisfaction. This method allows for making holistic changes rather than case-by-case temporary changes. The use of phases through the study allowed them to gather information and then further their study in areas that showed greater need for attention.

Hageman et al. [15] discussed the use of improving performance of staff via team-based evaluations. Observations from colleagues were utilized to identify issues that could be improved. Since lower scores for HCAHPS surveys can be tied to Medicare-based compensation, it is important to achieve and maintain higher ratings. The Quality Pulse 360 tool was seen to correlate with many aspects that influence satisfaction ratings. A similar tool could be developed and implemented as a continuous improvement tool for rural community healthcare facilities, particularly where there may be a high turnover rate.

Ostrov, Reynolds, and Scalzi [19] wanted to assess patient satisfaction between two different healthcare units. They used a simple questionnaire for the patients to answer and included what the physicians and nurses believed the patient would like. The survey found that service the patients preferred was not the same service staff had thought would be preferred. This supports the concept that healthcare staff do not always know what the expectations and wants are of the patients.

In Roe's editorial [20], it was discussed how satisfaction surveys could be influenced by the patient's visitation to other healthcare facilities. Roe's finding demonstrates a difference in expectations that can be set high from one health care facility to another. The author briefly brings forward the concept that there was not a clear distinction as to which areas in healthcare service had performed well to those that didn't perform well within the same facility. By distinguishing which area, staff or clinic, receives a low rating, improvement actions can be effectively provided to needed areas, but would also involve other departments so ensure everyone is on the same page.

Dror and Margol [21] aimed to determine the issue for a high number of malpractice suits for a healthcare facility. They approached the problem by using common Industrial Engineering tools such as the Pareto chart, cause and effect chart, and Quality Function Deployment. By doing so, they were able to find which department and what within that department was causing the highest claims, how much it cost the facility, and include any influential factors from other sources outside of the department. These same steps would be used after data collection to identify key areas that could be easily improved and have the potential for the larger impact on the overall satisfaction of the patient with a cost-benefit analysis in mind for the facility.

A 2009 article assessed tailoring the CAHPS survey to a Native American population in Oklahoma in 2005 [22]. Interviews were conducted with a small group of patients to ensure the cognitive understanding of the survey being developed. Afterwards, the survey was distributed via mail, a week after their visit, to assess their satisfaction with the healthcare facility. The information analyzed was successful in providing meaningful direction to improve patient satisfaction of the service. While this does assess a Native American population, service expectations were not assessed prior to the visit to allow patients to have a voice in this service. These results will allow staff to be proactive and potentially understand what a patient feel is valuable within the service.

The review of the literature shows evidence that many aspects of patient visits are taken into account for process improvement, but only after the service has been provided. In retrospective, this still leaves a service value gap that needs to be addressed, as seen in Figure 2. With the ability to bring forward what each party values in the service, the ability

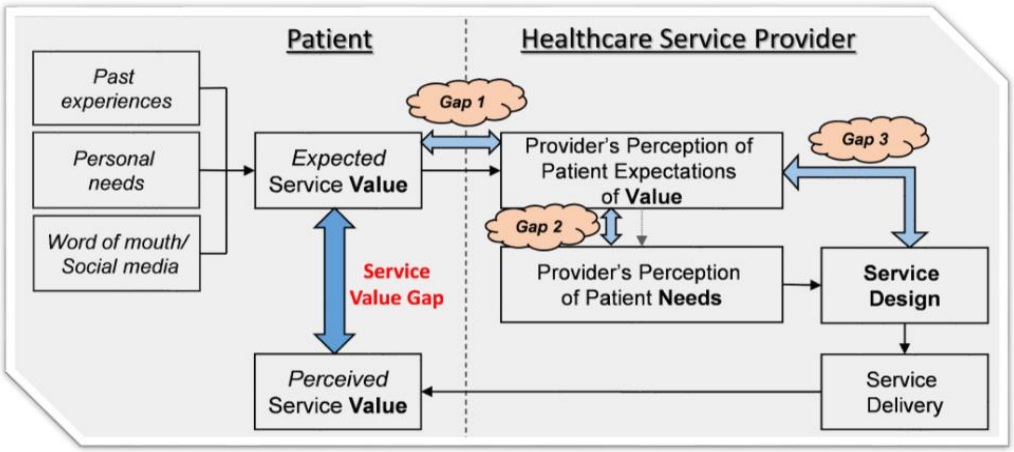
to meet needs and expectations satisfactorily becomes more viable prior to the visit. This project aims to bring the expectations on both sides to the others' attention so that a better understanding of what is valued can be more directly addressed.

Healthcare, like any service business, depends on satisfied returning customers and the ability to meet their expectations. When service is not satisfactory, many people look to other venues to get their service. This then turns into loss of patient traffic for the current healthcare facility as well as the patient inconvenience, particularly in rural communities.

Looking at the results presented in Figure 1, it is important to investigate why the Native American community in Browning Montana have lower HCAHPS overall scores than the state and in the nation averages.

This study collected qualitative and quantitative data. The qualitative portion will attempt to distinguish if there may be a cultural component missing in current surveys. The quantitative portion will assess the facility's processes to meet patients' expectations. Three hypotheses to test during the study are as follows:

1. What patients want and what providers think patients want is different (gap #1 in Figure 2).
2. What providers think patients want versus what the need is different (gap # 2 in Figure 2).
3. The attributes that the patients value are different than what is measured by the HCAHPS (gap 3 in Figure 2).


Patient
Healthcare Service Provider
Past experiences
Personal needs
Word of mouth/ Social media
Expected Service Value
Gap 1
Provider's Perception of Patient Expectations of Value
Gap 3
Gap 2
Provider's Perception of Patient Needs
Service Design
Service Value Gap
Perceived Service Value
Service Delivery

CHAPTER 3: METHODS

This study looked to explore the reason to which a clinic is receiving lower patient satisfaction scores in comparison to state and nation averages. The ability to identify specific reasons for lower performance will understandably be different for different clinics and facilities but still allows for the basic structure to ascertain similar issues elsewhere. The study explored two areas that may influence the score the hospital clinic is receiving. First is the satisfaction survey itself, to see if what is being asked is of actual importance to patients. Secondly, to confirm that the services provided are designed not only to care for the patient but to meet expectations patients anticipate.

The study worked with a single clinic within the hospital. This was to reduce the number of variables associated with using various clinics throughout the healthcare facility. Targeting research to a single clinic, the Outpatient clinic, within the hospital still allowed the study to access a number of providers and a high volume of patients that were willing to participate in the study. By doing so, it allowed obtaining a greater amount of information about the population through the sample to have a better representation of the findings. The approximate sample size anticipated was 30 participants total for both phases, 15 for each phase. Actual participation from patients in the first phase was 48 individuals and 44 in phase 2. This brings the research total to 92 individuals, which is 62 more than anticipated. The staff participation in phase 1 was ten and in phase 2 was six out of 13 total staff members for the designated clinic, thereby with a total of 108 participants. Survey administration occurred during regular operating hours over the course of a week in each phase in the months of November and December.

The research was conducted in two phases throughout the study. This allowed for compilation of information to be assessed and then re-administered back into the sample population. The phases of the research are presented in Figure 3. Initially, interviews were conducted by an Industrial and Management Systems Engineering (the author) for phase 1. This allowed insight that brings together technical and personable aspects for the entire process for patient satisfaction improvement. The interviews were done with staff and a random selection of patients that volunteered to participate. Through collection on both sides of the process, separation between the two groups was maintained as well as identified ideals of different individuals within those groups. Interviews were conducted using a standard process and set of questions that were based on a 4-point Likert scale and open-ended. The Likert scale questions were adopted from a previously published article [22] with established validity. They were then placed into Qualtrics survey software for faster analytics patient's view of the clinic's performance. The open-ended questions were:

1. What would you look for in your healthcare service?
2. What do you expect from the service when entering the facility?
3. What don't you like from previous visits to the same facility?
4. What is not important to you during your service visit?

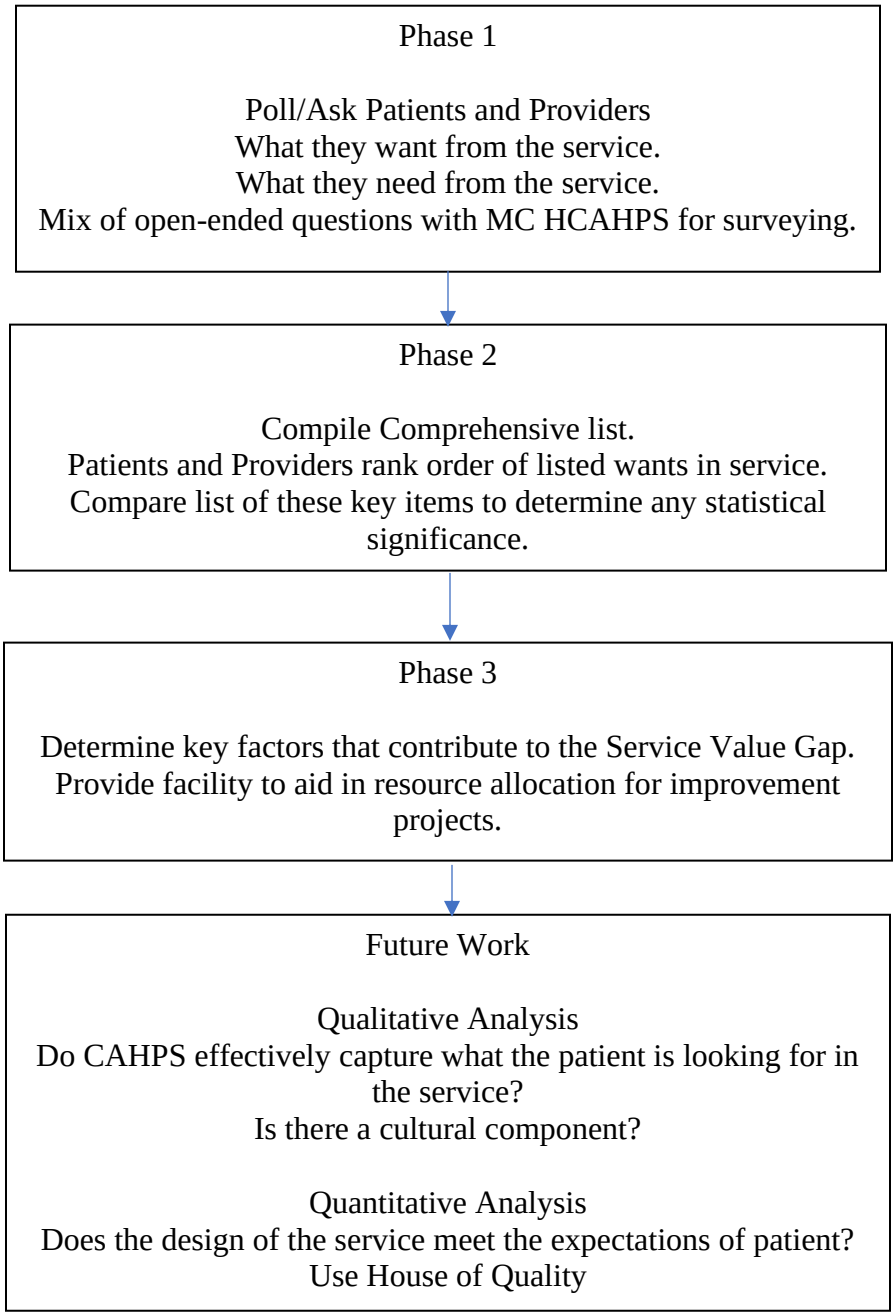


Figure 3: Research Phase Diagram

Phase 2 started after completion of the interviews at the clinic. Interview responses allowed for the creation of a comprehensive list based on the "thoughts" of the patients and providers. The list also included questions that are used in the HCAHPS survey. This was used to reassess the selected topics on their importance to each individual. This list was given to both patients and providers to be ranked by individuals based on what they feel was expected during the visit. Information collected in this phase was processed by a ranking survey.

An overall value was calculated to determine the items' overall scoring in the survey using Borda Count. Borda Count is a voting method, named for Jean-Charles de Borda, who developed the system in 1770 [23]. Borda Count assigns points to candidates based on their ranking; 1 point for last choice, 2 points for second-to-last choice, and so on. The point values for all ballots are totaled, and the candidate with the largest point total is the winner. Borda count is at times described as a consensus-based voting system since it can sometimes choose a more largely acceptable option over the one with majority support.

Phase 3 focus was a qualitative component based on the interviews and responses given. A comprehensive list was created from the interviews and HCAHPS questions. The idea was to test the significance of the HCAHPS questions with what patients and providers felt was important to them. The ranking process of the questions in phase 2 identified which areas are of importance to patients and providers during the patient visit. Here the HCAHPS questions are viewed to see where they fall in relation to other criteria and information collected during the interview process. This may indicate that a one-size-fits-all

questionnaire used in many healthcare clinics that are CMS funded is not appropriate for the Native American community. More importantly, it may also provide the healthcare clinic with a better understanding to support redirection of efforts to improve areas that are valued by patients. The statistical analysis using nonparametric Mann Whitney Tests was performed.

CHAPTER 4: PHASE 1 DATA AND PATIENT VISIT

Patients that want to be seen in the same day appointment clinic must go through the same process to obtain an appointment for healthcare. Individuals that want or need an appointment for the day start by either making a call or being at the clinic at 6 a.m. When the call is made, the patient needs to wait for the secretary or nursing assistant on shift to answer the call. The patient is asked if he/she would prefer to see a specific physician or if they had a preference on time of day to be seen. This is all dependent on patients being able to call or present themselves early enough to obtain an appointment, which has been an issue in all departments within this facility.

Once a patient obtains an appointment, he/she is asked about symptoms and then assigned a time to check-in for the appointment. Arriving at the facility, the patient checks in, during which time is spent updating any contact information. After this process, the patient sits in the waiting area near the clinic. The patient waits there until a nursing assistant calls the patient into the clinic. The nursing assistant collects the patient's vitals and reconfirms the health complaint. From here, the patient is brought to an exam room where he/she waits for the physician to arrive and see the patient for any health issues. In both the waiting area and in the exam room, the waiting time that occurs from entering the facility to be seen by the physician can usually be up to an hour. During the visit, the physician can have additional items such as lab work or x-rays ordered to investigate further the health issues or patient complaint. Once the visit with the provider has been completed, the patient can leave or wait for medications that may have been prescribed. Some issues that patients voiced but were not recorded during the survey include an

unprofessional demeanor; feeling as if they are a burden to the staff, and lack of available appointments.

The following were responses from phase 1 that involved the open-ended questions for patients and providers. This includes 46 completed responses from patients and ten completed responses from staff. This was 33 more than anticipated prior to research being conducted for the patient pool. Of this group of participants, most were female (70.83%). Age had a normal distribution curve. Most of the patient participants were employed full time at 60.42%.

Staff response rate was strictly from staff that were working on the same day data was collected. The study excluded pediatric staff due to the scope of the research. The total response rate accounted for 83% of the staff in this specific clinic. Note that the open-ended question “What patients did not find important during visits?” had a vast majority answered in the opposite, stating items that they found important or that everything is important. That information was then unusable due to the type of responses. It is important to note that the word-cloud figures represent the occurrence of a word from responses and not the aspect it represents. An example is a difference in wait which appeared for both wait time to be brought in for the patient’s appointment as well as wait to be seen by the physician.

Phase 1 patient responses for question 6 of the patient survey "What do you look for in your healthcare?" had three responses at the top that included quality visit, respected, and on time. Other responses also included thorough diagnosis, availability of appointments, and set protocol. The other responses showing that patients feel they want a comprehensive visit for their ailments, want to be able to get an appointment as needed,

and be able to follow steps consistently throughout the process. The frequency of word responses is shown in Figure 4 below.

Figure 4: Patient Word Cloud “What do you look for in your healthcare?”

For question 7 of the patient survey "What do you expect from your healthcare?" The top three, in order, were customer service, thorough diagnosis, and professionalism. Other responses also included clean facility, prompt service, and clear communication. The frequency of word responses is shown in Figure 5 below.

Figure 5: Patient Word Cloud “What do you expect from your healthcare?”

Question 8 for patients was "What don’t you like from previous visits to the same facility?”. The top three responses for this were wait time, lack of regular appointments, and poor customer service. The wait time includes the time waiting in the waiting area as well as time waiting in the exam room to be seen by the provider. Poor customer service includes rude behavior and feeling like a burden to staff. Other responses included cleanliness and lack of explanation. The frequency of word responses in shown in Figure 6 below.

Figure 6: Patient Word Cloud “What do you not like about your healthcare?”

Question 5 for the healthcare staff "What do you think patients want from their healthcare?” had the following top responses: medication refill and good doctor. Other responses also include information to improve health, thorough visit, and time (in system, or with doctor). The frequency of word responses in shown in Figure 7 below.

Figure 7: Staff Word Cloud “What do patients want from their healthcare?”

Question 6 for the healthcare staff "What do you think patients need from their healthcare?". The top two responses for this were communication (information and tools to improve health) and participation during visit. Other responses included a thorough examination and health education. The frequency of word responses in shown in Figure 8 below.

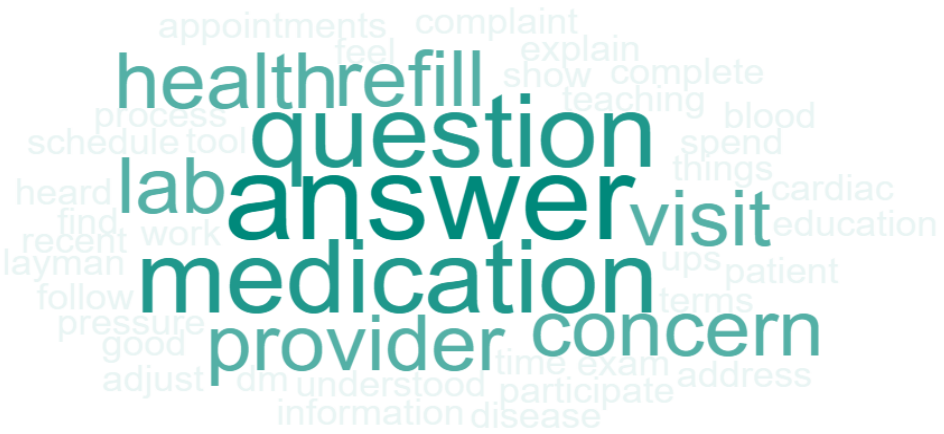


Figure 8: Staff Word Cloud “What do patients need from their healthcare?”

Question 7 for the healthcare staff was "What do you think the patient did not like from their visit?" The top two responses for this were long waits and short time with provider. Other responses included rudeness and rushed. The frequency of word responses is shown in Figure 10 below.

Figure 9: Staff Word Cloud “What do you think patients did not like from their visit?”

From these five questions, the following comparisons were made to help identify the service value gaps for this healthcare clinic:

- What patients look for vs. what staff thinks patients look for (Gap 1)
- What patients look for vs. what staff thinks patients need (Gap 2)
- What patients expect vs. what staff thinks patients need (Gap 1 &2)
- What staff thinks the patient wants vs. what they think they need (Gap 2)
- What patients do not like vs. what staff thinks patients do not like (Gap 1)

Question 1 What patients look for vs. what staff thinks the patient looks for Gap 1

The comparison between what patients look for in their healthcare and what staff thinks patients look for aims to identify shortcomings in Gap 1 of the service value gap diagram. From the information collected, patients look for quality care, being respected, and timely care. The ten staff’s top two responses were patients wanted medication refills

and a quality physician. In this simple side by side comparison, we can identify both a similarity and difference. The similarity is the quality physician, and the difference is the medication item as well as the respect. The number of times quality visit appeared in the 46 patient responses accounted for 16, respected 14, and on-time care for nine. The staff responded with medication refills four times and quality physician three times.

Question 2 What patients look for vs. what staff thinks patients need Gap 2

The second comparison is between, what patients look for and what the staff thinks patients need from the healthcare visit. This comparison aims to identify any shortcomings in Gap 2 in the service value gap diagram. From the information collected, once again of the 46, patients look for quality care, being respected, and having timely care provided. The ten staff's top responses for what they think the patient needs was communication of information and health improvement tools and acknowledged participation of the patient during their visit. In this side by side comparison, some similarities and differences were identified. The similarity is staff think patients need to participate in their care or feel acknowledged, and a difference is the lack of timeliness for a visit by the staff. The number of times quality visit appeared in patient responses accounted for 16, respected 14, and on-time care for nine. The staff responded with information communication five times and acknowledgement four times.

Question 3 What patients expect vs. what staff thinks patients need Gap 1 &2

The comparison between what patients expect from their healthcare and what staff thinks patients need from their healthcare aims to identify shortcomings in Gap 1 and 2 of

the service value gap diagram. From the information collected, the 46 patient's expectations from their healthcare include good customer service, a thorough diagnosis, and professionalism. The ten staff's top two responses were thinking patient needs are information communication and acknowledgement during the visit. In this simple side by side comparison, similarities and differences were identified. The similarity is the diagnosis communication or information transfer, and a difference is the expectation of quality care and professionalism. The number of times customer service appeared in patient responses accounted for 13, thorough diagnosis nine, and professionalism for five. The staff responded with information communication five times and participation acknowledgement four times.

Question 4 What staff thinks the patient wants vs. what they think they need Gap 2

The comparison between what staff thinks patients want from their healthcare and what staff thinks patients need from their healthcare aims to identify shortcomings in Gap 2 of the service value gap diagram. From the information collected, the ten staff think what patients want from their healthcare are medication refills and a quality physician. The staff's top two responses were thinking patient needs are information communication and acknowledgement during the visit. In this simple side by side comparison we can identify both a similarity and difference. The similarity is quality care, and the difference is medication. The number of times medication accounted for is four and quality physician for three. The staff responded with information communication five times and participation acknowledgement four times.

Question 5 What patients do not like vs. what staff thinks patients do not like Gap1

The comparison between what patients do not like and what staff thinks patients do not like returns to further explore Gap 1 in the service value diagram. From the information collected, the ten staff think patients do not like short visits with the provider and the wait to get an appointment. Other responses included not getting medications refilled, answering Government Performance and Results Act questions, and lack of explanation in medication, health education, and steps to improve health. The number of times short visit was mentioned was four and wait for an appointment was three. The 46 patients responded to this question with many stating the wait to get an appointment was a major dislike. The next two items that presented themselves were feeling mistreated and the wait to be seen. The two wait items differentiate due to one is an attempt to get an appointment, to get in the system, and the other is having obtained an appointment but waiting within the system. Both groups show that the wait to get an appointment is a dislike for people attempting to be seen. The staff's first response of short time with provider did show up in one patient's response. With many other items appearing more frequently than that of the staff's top response, this appears not to be as important to the patient. A more significant item is the social treatment the patient receives. A relating item to short provider visits from staff could be to the patient's response for lack of professionalism and explanation.

Information collected from the results of phase 1 were used to build a second survey that was utilized in phase 2. A list of general topics from the answers of phase 1 was generated, and items were placed in an item rank list. Fourteen items were selected based on frequency and difference that had occurred in the first phase. Ideally, a ranking scheme

would be limited to seven to ten items, but due to the number of six constructs and the number of varied answers received, the list needed to be slightly larger than originally planned. The following is the breakdown of the six constructs and how responses landed within them that were used in the second phase of the study. This takes the subjective matter from open responses and places them into a tool where patients and staff were able to be objective with the material presented.

Phase 2	Constructs	Ranking Survey
	Getting Care Quickly	
1	(Appointment)When you called or went to your clinic to get an appointment for care you needed right away, how often did you get an appointment as soon as you thought you needed it?	Getting an appointment when needed.
2	(Wait)After you checked in for your appointment at your clinic, were you kept informed about how long you would need to wait for the person you went to see?	Being seen with short wait time.
	Getting Care Needed	
3	(Quality)How often was it easy to get the care, tests or treatment you thought you needed?	Receiving quality care.
	Communication	
4	How often did your Primary Doctor Nurse(PDN) explain things in a way that was easy to understand	Diagnosis explained so that you understood.
5	(Acknowledged)How often did your PDN show respect for what you had to say?	Being acknowledged for what you have to say.
6	When a health professional sent you for a blood test, x-ray or other test, how often did someone from the health professional's office follow up to give you the test results	Follow up appointment/information from visit.

Table 1 Cont.		
	Clerks & Receptionists	
7	How often were clerks and receptionists at your clinic as helpful as you thought they should be	Clinic staff helpful.
8	How often did clerks and receptionists at your clinic treat you with courtesy and respect	Clinic staff courteous and respectful.
	Shared Decision Making	
9	Did a doctor or other health professional talk with you about the pros and cons of each choice for your treatment or health care	Discuss pros and cons of treatment or health care with provider.
10	When there was more than one choice for your treatment or health care, did a doctor or other health professional ask which choice you thought was best for you	Discuss what choice for your care you thought was best for you.
	Health Education	
11(2)	Did you and your PDN talk about how to maintain a healthy diet/exercise and healthy eating habits	Talk about obtaining/maintaining healthy eating and exercising habits.
12(2)	Medication refill	Receiving medication refills.
13(3)	Familiar Care(same provider)	Seeing the same provider, familiarity with health history.
14(2)	Cleanliness	Cleanliness of the facility.

Table 1: Phase 2 Survey Compilation

The information collected under these six constructs, and specific questions that lie within each, were used to generate the second phase survey. While following the construct structure from the Oklahoma study to identify themes, as seen above, these fourteen items were randomized in the phase two survey to remove any anchoring bias due to the order of the items as they were being read. As seen in the survey below, the items were not in the order they had been listed previously.

In this phase of the study, patients also responded to multiple-choice questions. This was used to determine the level of satisfaction they had to each item. This, in turn, could give some insight into the factors that are high and less valued in the rest of the study.

Additional information from the phase 1 survey included how patients perceived the clinic performs. These items were collected in the multiple-choice question portion of the survey. The items were scored with 4-point Likert Scale reasoning for the performance in each question, 1 being best and 4 worst. Due to the setup of the question instead of the lower score determining low performance, the reverse was true, the higher the score, the lower the performance or satisfaction. The setup of questions in the Qualtrics program resulted in lower scores meant lower scores showed better satisfaction. Meaning having a score closer to 1 is better performing than a score closer to 4. For example, for question 10, a mean score of 2.74 is more on the negative side of the scale. A score of 1 would represent that all patients felt they got appointments as soon as they needed them. Question 15 had a yes or no response, which is the cause of a max number of 2. Question 11 has a maximum value of 6 due to the number of potential responses, with a higher value still meaning worse performance. Additionally, Questions 17, 18, and 19 have a max of 3 in the table below, due to no one answering with the “Never” response.

Questions that showed lower ratings, meaning poor performance, were related to the ability to get an appointment to be seen. Patients that were surveyed responded that they did not obtain an appointment as soon as they felt they needed one. Another area was being informed on possible wait times to be seen by a provider and receiving follow-up from x-ray/labs that were taken. This is determined from the higher mean score of these

multiple-choice items. The set-up of the questions were identical to the OK and CAHPS questions, but the score is reversed here due to the setup of the software where the information was placed. This means the lower the score, the better its performance based off of patient responses.

Patient questions	Min Score	Max Score	Mean Score Performance %	Std. Deviation	Variance
Q10 - When you called or went to your clinic to get an appointment for care you needed right away, how often did you get an appointment as soon as you thought you needed it?	1.00	4.00	2.74 42.58%	0.87	0.76
Q11 - When you called or went to your clinic to get an appointment for care you needed right away, how long did you usually have to wait between trying to get an appointment and actually seeing a doctor or other health professional?	1.00	6.00	3.33 53.4%	1.48	2.18
Q12 - Not counting the times you needed care right away, how often did you get an appointment for your health care at your clinic as soon as you thought you needed it?	1.00	4.00	2.43 52.81%	0.82	0.68
Q13 - After you checked in for your appointment at your clinic, were you kept informed about how long you would need to wait for the person you went to see?	1.00	4.00	2.75 42.25%	0.90	0.81
Q14 - How often was it easy to get the care, tests or treatment you thought you needed?	1.00	4.00	2.38 54.46%	0.93	0.86

Table 2 Cont.					
Q15 - Did your Primary Doctor or Nurse (PDN) encourage you to talk about your health concerns, including those that might be embarrassing?	1.00	2.00	1.29 71%	0.45	0.21
Q16 - How often did your PDN explain things in a way that was easy to understand?	1.00	4.00	2.21 60.67%	0.96	0.91
Q17 - How often did your PDN listen carefully to you?	1.00	4.00	1.92 69.64%	0.73	0.53
Q18 - How often did your PDN show respect for what you had to say?	1.00	4.00	1.81 73.27%	0.75	0.57
Q19 - How often did your PDN spend enough time with you?	1.00	4.00	2.17 61.39%	0.75	0.56
Q20 - How often did your PDN explain the purpose of these medicines in a way that was easy to understand?	1.00	4.00	2.21 60.07%	1.04	1.08
Q21 - How often did a PDN explain what to do if your illness or health condition got worse or came back, in a way that was easy to understand?	1.00	4.00	2.13 62.17%	0.99	0.98
Q22 - When a health professional sent you for a blood test, x-ray or other test, how often did someone from the health professional's office follow up to give you the test results?	1.00	4.00	2.73 42.91%	1.15	1.32

Table 2 Cont.					
Q23 - How often did doctors or other health professionals explain test results in a way that was easy to understand?	1.00	4.00	2.26 58.42%	0.98	0.96
Q24 - How often were clerks and receptionists at your clinic as helpful as you thought they should be?	1.00	4.00	2.19 60.73%	0.99	0.99
Q25 - How often did clerks and receptionists at your clinic treat you with courtesy and respect?	1.00	4.00	1.92 69.64%	0.89	0.78
Q26 - Did a doctor or other health professional talk with you about the pros and cons of each choice for your treatment or health care?	1.00	4.00	2.24 59.08%	0.81	0.66
Q27 - When there was more than one choice for your treatment or health care, did a doctor or other health professional ask which choice you thought was best for you?	1.00	4.00	2.20 60.4%	0.85	0.72

Table 2: Patient MC Statistics

Patients that were surveyed responded that they did not get an appointment as soon as they felt they needed. Another area was being informed on possible wait times to be seen by a provider and receiving follow-up from x-ray/labs that were taken. This is determined from the higher mean score of these multiple-choice items. Again, the higher the mean score, the lower that item was rated on its performance.

CHAPTER 5: PHASE 2 PATIENT PREFERENCE EXPLORATION

Phase 2 Survey

Survey #_____

1. Age: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, and 85 +.
2. Gender: Male, Female
3. Marital Status: Married, Widowed, Divorced, Separated, Never Married
4. Employment Status: Full Time, Part Time, Unemployed Looking for work, Unemployed Not looking for work, Retired, Student, Disabled
5. Type of visit:

Ranking Survey: Rank in order of importance were 1 is the highest and 14 is the lowest important item.	
Clinic staff courteous and respectful.	
Getting an appointment when needed.	
Receiving medication refills.	
Receiving quality care.	
Seeing the same provider, familiarity with health history.	
Cleanliness of the facility.	
Being seen with short wait time.	
Being acknowledged for what you have to say.	
Clinic staff helpful.	

Diagnosis explained so that you understood.	
Discuss pros and cons of treatment or health care with provider.	
Talk about obtaining/maintaining healthy eating and exercising habits.	
Discuss what choice for your care you thought was best for you.	
Follow up appointment/information from visit.	

Figure 10: Ranking Survey

The items selected for the ranking survey were done so by the importance found in phase 1 as well as ensuring the constructs, in which the items fall under, were represented by their frequency and previously stated importance. Reiterating that an ideal ranking survey would contain a maximum of ten items, the simple fact that the constructs themselves account for more than half of that is a major driver for additional items to be included. In this phase, the importance of each item was measured comparatively using the Mann Whitney test to determine if there existed any significance between the responses of patients compared to that of the staff.

In this phase, 44 patients that participated in the survey, achieving a greater number than the original goal of 15 completed surveys. The staff had six participants who had responded in this phase. This falls lower than the ten that had volunteered in the previous phase. It still gave a fair representation of the smaller clinic in which the study was conducted.

While a simple count determined the importance of items in phase 1, phase 2 had utilized Borda Count to determine which items were the three most important and the three

least important for each group. Borda Count in this instance started by giving the number one valued item a score of 14, the second item 13 and so on until the last item was given a score of 1. These values were then tallied to obtain an overall score that would place the item importance.

According to the Borda Count calculation, the top three critical choices for the 44 patients were: receiving quality care, getting an appointment when needed, and clinical staff being courteous and helpful. These items fell under the constructs of Getting Care Needed, Getting Care Quickly, and Clerks and Receptionists. On the other end of the spectrum, the three items that ranked least important in the selections (in order of most to least) were: discussion of care that was best for them, follow-up appointment and talk about obtaining/maintaining healthy eating and activity. These items fell under the following constructs, respectively: Shared Decision Making, Communication, and Health Education.

The responses by the six staff in this phase according to the same process were: seeing the same provider or someone familiar with health history, getting an appointment when needed, and receiving quality care. The constructs that these items fell under were Health Education, Communication, and Getting Care Needed. The following items are listed with the worst performing being last: discussion of care that was ranked highest, talk about obtaining/maintaining healthy eating and activity and follow-up appointment. These items represent the following constructs: Shared Decision Making, Health Education, and Communication.

According to the results, the same choices on the low end of the ranking survey were selected by both groups. Of all the items on the list, discussion of care that was best

for them, follow-up appointment, and talk about obtaining/maintaining healthy eating and activity, were not found to be as valuable to either group as other items on the list.

The items that 44 patients ranked as being most important were: receiving quality care, getting an appointment when needed, and clinical staff being courteous and helpful, varied only in ranking than responses from staff. The six staff had ranked items in the following order: seeing the same provider or someone familiar with health history, getting an appointment when needed, and receiving quality care, in their selection of importance. There are two separate commonalities in the results for top priorities. The first is that receiving quality care and getting an appointment when needed are found to be valued higher in both groups. The second commonality is that getting an appointment when needed was ranked second overall by both groups. Two differences are seen in the top rank of both groups. In this phase, the patients had placed a higher value in clinical staff being courteous and respectful. However, the staff placed seeing the same provider or someone familiar with health history as a valuable item.

Table 3 shows the ranked items placed in according to Borda Count. On the left side are the patient's rankings of the items, and the right side is the staff's ordering.

BC Score	Patient responses	Staff responses	BC Score
473	Receiving quality care	Seeing the same provider, familiarity with health history	72
464	Getting an appointment when needed	Getting an appointment when needed	71
375	Clinic staff courteous and respectful	Receiving quality care	64
354	Diagnosis explained so that you understand	Being acknowledged for what you have to say	61

Table 3 Cont.			
353	Being seen with short wait time	Diagnosis explained so that you understand	54
346	Receiving medication refills	Clinic staff courteous and respectful	49
318	Seeing the same provider, familiarity with health history	Receiving medication refills	44
317	Cleanliness of facility	Being seen with short wait time	37
317	Clinic staff helpful	Clinic staff helpful	35
307	Being acknowledged for what you have to say	Cleanliness of facility	32
287	Discuss pros and cons of treatment or health care with provider	Discuss pros and cons of treatment or health care with provider	32
276	Discuss what choice for your care you thought was best for you	Discuss what choice for your care you thought was best for you	29
242	Follow up appointment/information from visit.	Talk about obtaining/maintaining healthy eating and exercise habits	28
222	Talk about obtaining/maintaining healthy eating and exercise habits	Follow up appointment/information from visit.	22

Table 3: Borda Count results

CHAPTER 6: STATISTICAL COMPARISON OF RANKINGS

Mann Whitney tests were conducted for each item to compare how patients responded and how staff responded to each of the fourteen items. These are evaluated at 95% confidence between the same items of patients and staff responses, to determine if there is any significant distance between how patients and staff had responded to the order of the importance in phase 2. Items can be determined to be significantly different by the confidence interval not containing 0 (zero), or where it states the test is significant at a value less than a p-value 0.05.

Patient vs Staff question	Confidence Interval p-value	H_0=No Significance H_a=Significant
Clinic staff courteous and respectful.	(-4.00,4.00) 0.7191	Not Significant
Getting an appointment when needed.	(-0.001,4.001) 0.1265	Borderline
Receiving medication refills.	(-5.000,4.000) 0.8104	Not Significant
Receiving quality care.	(-3.001,2.000) 0.5940	Not Significant
Seeing the same provider, familiarity with health history.	(1.999,8.000) 0.0035	Statistically Significant
Cleanliness of the facility.	(-6.998,1.998) 0.3679	Not Significant
Being seen with short wait time.	(-6.001,2.001) 0.3013	Not Significant
Being acknowledged for what you have to say.	(0.000,6.000) 0.0160	Statistically Significant
Clinic staff helpful.	(-5.001,2.001) 0.3434	Not Significant
Diagnosis explained so that you understood.	(-2.001,5.001) 0.5096	Not Significant
Discuss pros and cons of treatment or health care with provider.	(-3.999,1.000) 0.3903	Not Significant

Table 4 cont.		
Talk about obtaining/maintaining healthy eating and exercising habits.	(-3.000,2.999) 0.8685	Not Significant
Discuss what choice for your care you thought was best for you.	(-5.000,3.000) 0.4161	Not Significant
Follow up appointment/information from visit.	(-4.999,1.001) 0.3503	Not Significant

Table 4: Mann Whitney test results

From the analysis, some areas show a significant difference in the responses between the 44 patients and six healthcare staff. Of the 14 items, only two had shown a statistical difference in priority between the two groups. These items, “Seeing the Same Provider” and “Being Acknowledged for What You Have To Say”, demonstrate that the patients do no find this item as valuable in their service as the staff thinks the patient would have. The median score of the staff representing a higher value to both of these service categories than the patients responded with. This meaning that these two items are valued differently enough to be considered a gap between the two groups with p-values of 0.0035 and 0.0160 respectively which are below the alpha value of 0.05.

While these are the only two significant items in the list, there is one other that shows a borderline result for being significant according to the testing method and values obtained. This is “Getting an Appointment When Needed”, with the confidence interval virtually on zero, the likelihood that this is a potential significant difference is a possibility. Getting an appointment when needed is being considered borderline due to its confidence interval bordering 0, even though its p-value is 0.1265. Further data collection may reveal

that this item could be a source that contributes to the healthcare service value gap. It is also an item higher in value to both groups, which could have a larger impact on the patient satisfaction rating of the clinic.

CHAPTER 7: STUDY COMPARISONS

Tying this research to the Oklahoma (OK) study, we can see a difference in what patients expect and value in their healthcare. While the OK study included domains/constructs that were not included in this study, such as aftercare hours and discrimination, we can look at the other constructs that were included to show how a difference can exist between similar populations of people. The reasoning for not including all constructs in this study was related to the use of a single clinic that operated only during the hours of 8 am to 5 pm.

Results from the OK study showed that Getting Care Quickly and the Clerks/Receptionists constructs were found to be rated higher than the others. Using the ranking survey results from phase 2, the top constructs desired by the patients were Getting Care Needed, Getting Care Quickly, and Clerks & Receptionists. The staff had responded with the following constructs being seen as higher in value; Health Education, Getting Care Quickly, and Getting Care Needed. Setting this as a goal for healthcare facilities could drive higher satisfaction ratings. It also requires being aware of the type of care being given. In both the OK study and this study, individuals valued a certain level of care and respect while being seen in their healthcare facility.

CHAPTER 8: CONCLUSION

Findings from phase 1, in particular the open-ended questions, it was determined that there existed a clear distinction between what the patient had looked for in their service versus what the staff had thought the patient was looking for. There had been a clear difference that patients wanted or valued items that involved their treatment and care in the system. The staff response was directed more towards a result, such as the medication item. This has a possibility of bridging an area of difference in expectations. With this and other smaller disconnects in expectations, the service that is being provided might be influence higher ratings in patient satisfaction. The ability to explore and assess any service value gaps further could bring into light the root issue. In doing so, effective corrective actions can be taken in order to address these differences.

The multiple choice section of phase 1 shows that there is room for improvement, particularly the appointment process is an issue for patients otherwise, most items came back rating slightly higher than midline. This shows the room to improve due to the items not performing at an exceptional level. A majority of items falling between a patient-perceived rating between 50 and 75%. This is an overall score for each item, whereas scores received in the example CMS report, Figure 1, are performance scores at a specific level. Meaning the scores received in this study would demonstrate a much lower score than that which had been reported.

Phase 2 results show that there was a better connection between the expectations on both sides of the service in this healthcare clinic. This was an unexpected result when compared to the open-ended question of phase 1. Both sides had the same top three items

as highly valued and the same lower items as being less important, although not the same order. This may have been a result of having options limited to only the available list, thereby guiding the answers in both groups. A bias may have been created due to individuals answering to a specific set of questions. This is seen in the comparison of the patient's response of "what do you look for" and the staff's response to "what do you think patients look for". Observing the shift here to the ranking survey where the staff's response had changed, seemingly to reflect those similar to the patient. Additional exploration into biased answering with belief on what is socially acceptable rather than how they actually feel could uncover results that had a small presence in this study.

With better insight that captures what patients are looking for from a service, as with any service industry, the potential to better meet those needs increases. Instead of being reactive in the process of improvement, the aim will be proactive to enhance the patient experience and meet their needs. With the understanding that some items may be of more value than others, contradicting previous thought and training, professionals can focus their critical time to what is valued by their customer, in this case, the patient.

In the case of healthcare facilities such as that in this study, improved patient satisfaction with the service will support patient retention for providers employed in the clinic and not seek services elsewhere as well as result in increased reimbursement from CMS accreditation. It also creates an environment where patients feel that their voice is more valued, enhancing the feeling that the patient is respected.

This study's information was collected over a course of two total weeks from a single clinic in a healthcare facility. With extended testing times through multiple clinics,

a better view of the healthcare facility as whole can add to the validity of the results. This will increase the sample size and bring in more participants, both patients and staff, for increased insight regarding this study's goals.

Phase 1 demonstrated, through open questions, that there exist similarities in expectations but more notably the possibility of a disconnection. The multiple-choice section allowed specific items to be rated by the patients. Here, the generally lower performance score means there is something to look further into for improvement. Phase 2 brought common themes from both patients and staff into a single survey. By having the participants order the importance of each item, it allowed for further statistical analysis. The results show two items that are significant and one item that is borderline. Meaning these items are ranked far enough apart that they do not align between the two groups. The borderline item of getting an appointment when needed was found to be in the top three Borda Count ranked by patients and staff. The other two items that were significant were not found in the top three to either group.

Steps to further build on this information could include the expansion of the survey to other clinics within this healthcare facility, along with other rural healthcare clinics that care for Native Americans. Additional depth can be added by utilizing tools such as Quality Function Deployment to assess in detail patient expectations to service provided to meet those expectations. Other statistical analysis can be utilized as well to potentially predict responses of the patient but would require additional information to be collected. Using newly collected information to do comparisons on changes resulting from situations such as the Covid-19 pandemic could aid in future response efforts by healthcare facilities.

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APPENDICES

APPENDIX A

PHASE 1 SURVEY

Phase 1 Survey

Age:

Gender:

Marital Status:

Employment Status:

Open Ended Questions

1. What do you look for in your healthcare service?

- What do you think the patient wants from their visit?

2. What do expect from the service when entering the facility?

- What do you think the patient needs from their visit?

3. What don't you like from previous visits to the same facility?

- What do you think the patient did not like from their visit?

4. What is not important to you during your service visit?

- What do you think the patient does not find valuable in their visit?

- (Refers to questions given to staff)

Getting Care Quickly in the Last 12 Months

5. When you called or went to your clinic to get an appointment for care you needed right away, how often did you get an appointment as soon as you thought you needed it?

   Never(N)/ Sometimes (S)/ Usually (U)/Always (A)

6. When you called or went to your clinic to get an appointment for care you needed right away, how long did you usually have to wait between trying to get an appointment and

actually seeing a doctor or other health professional? Same day/1 day/2–3 days/4–7 days/8–14 days/15 days or longer

7. Not counting the times you needed care right away, how often did you get an appointment for your health care at your clinic as soon as you thought you needed it? N / S / U / A
8. After you checked in for your appointment at your clinic, were you kept informed about how long you would need to wait for the person you went to see? Definitely yes/ Somewhat yes/ Somewhat no/ Definitely no

Getting Needed Care in the Last 12 Months

9. How often was it easy to get the care, tests or treatment you thought you needed? N / S / U / A

Communication

10. Did your Primary Doctor or Nurse (PDN) encourage you to talk about your health concerns, including those that might be embarrassing? Yes (Y)/No (N)
11. How often did your PDN explain things in a way that was easy to understand? N / S / U / A
12. How often did your PDN listen carefully to you? N / S / U / A
13. How often did your PDN show respect for what you had to say? N / S / U / A
14. How often did your PDN spend enough time with you? N / S / U / A
15. How often did your PDN explain the purpose of these medicines in a way that was easy to understand? N / S / U / A

16. How often did a PDN explain what to do if your illness or health condition got worse or came back, in a way that was easy to understand? N / S / U / A
17. When a health professional sent you for a blood test, x-ray or other test, how often did someone from the health professional's office follow up to give you the test results? N / S / U / A
18. How often did doctors or other health professionals explain test results in a way that was easy to understand? N / S / U / A

Clerks and Receptionists at your Clinic in the Last 12 Months

19. How often were clerks and receptionists at your clinic as helpful as you thought they should be? N / S / U / A
20. How often did clerks and receptionists at your clinic treat you with courtesy and respect? N / S / U / A

Shared Decision Making in the Last 12 Months

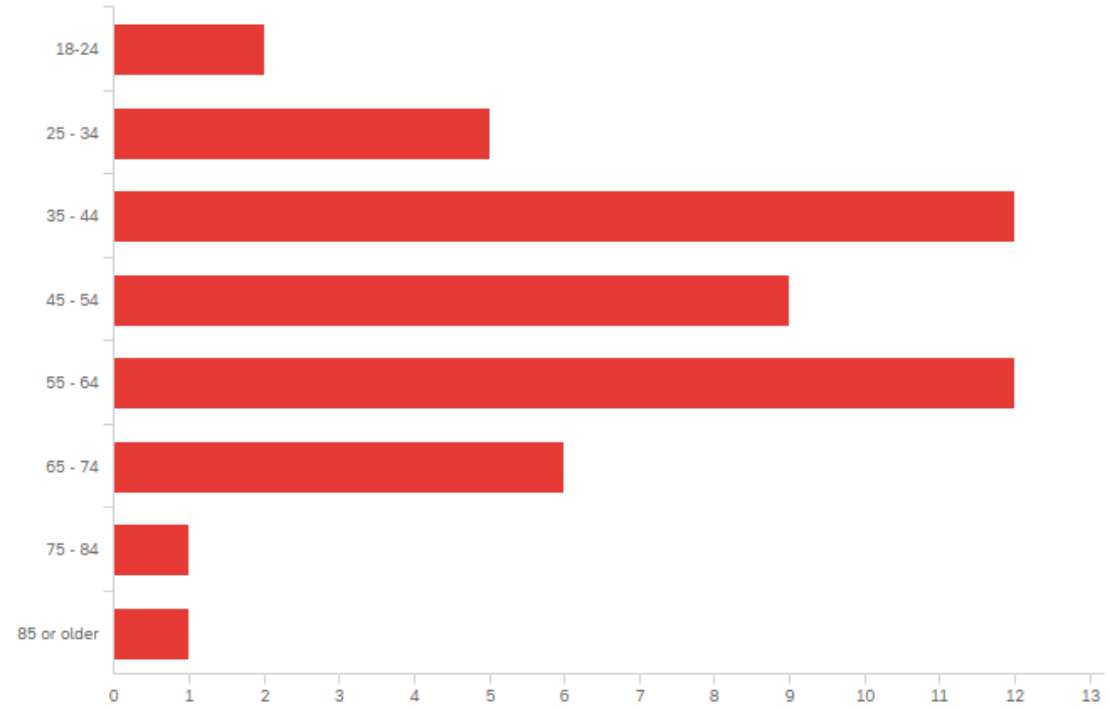
21. Did a doctor or other health professional talk with you about the pros and cons of each choice for your treatment or health care? Definitely yes/ Somewhat yes/ Somewhat no/ Definitely no
22. When there was more than one choice for your treatment or health care, did a doctor or other health professional ask which choice you thought was best for you? Definitely yes/ Somewhat yes/ Somewhat no/ Definitely no
23. Any Additional Comments?

APPENDIX B

PHASE 1 DATA

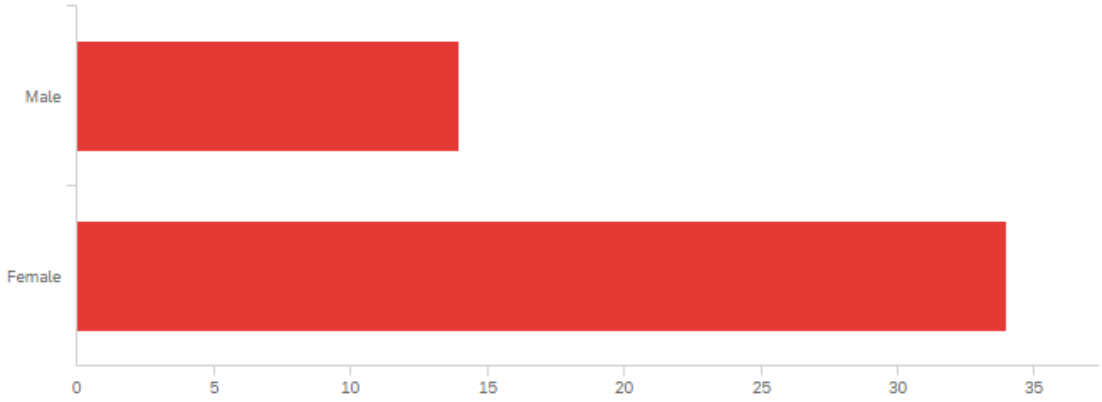
General Demographics - Patients

Q1. Age:



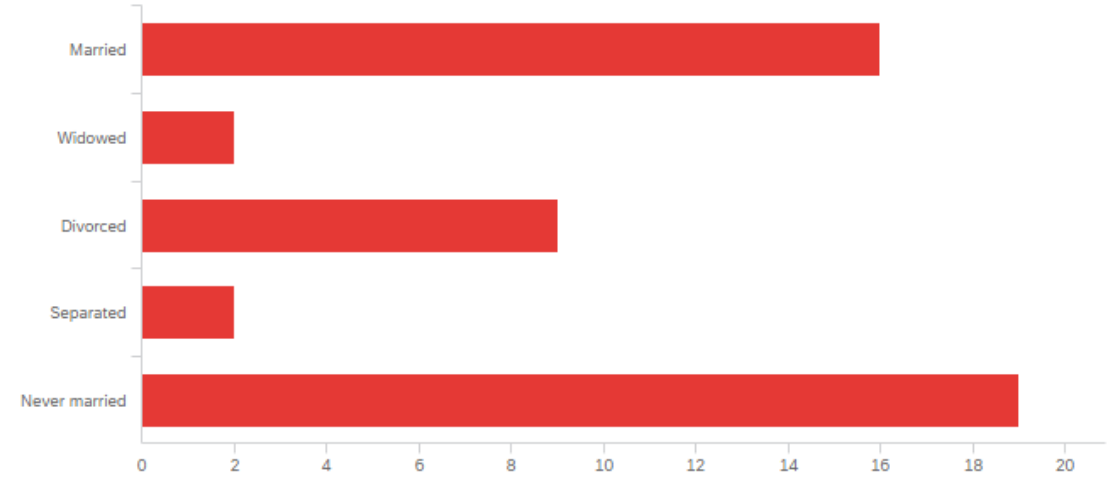
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	AGE:	1.00	8.00	4.06	1.52	2.31	48

Q2: Gender:



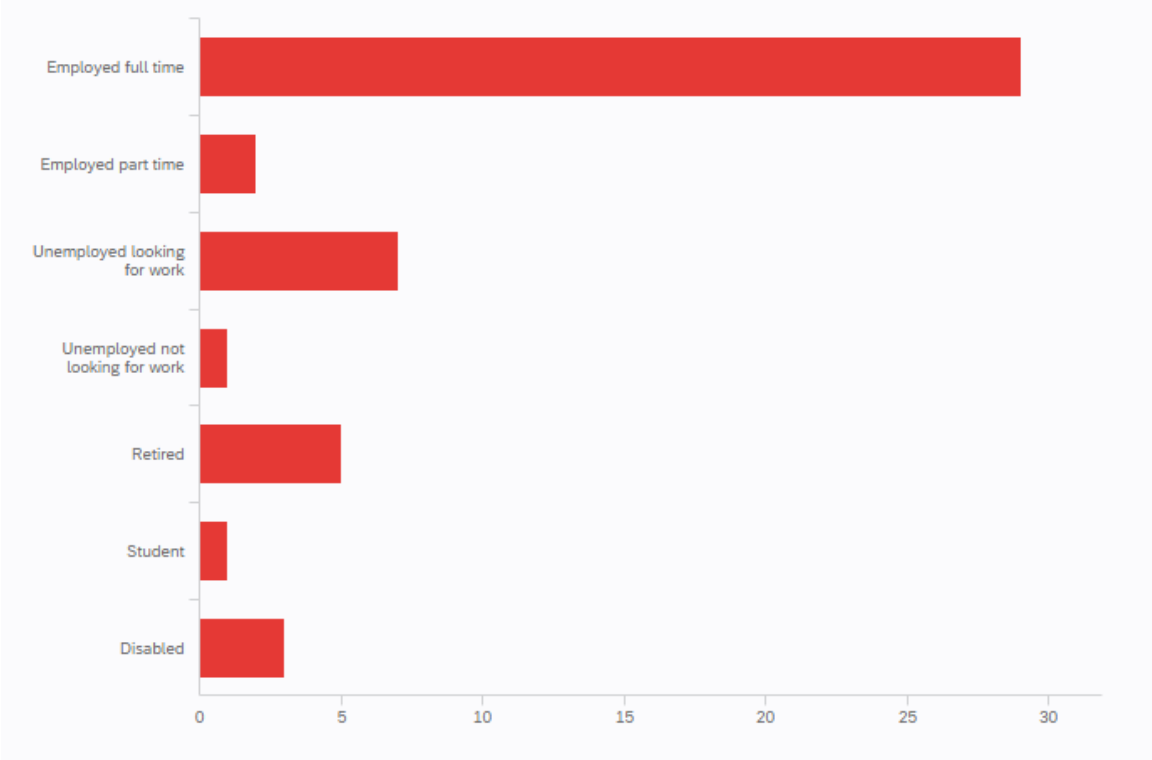
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	GENDER:	1.00	2.00	1.71	0.45	0.21	48

Q3: Marital Status:



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	MARITAL STATUS	1.00	5.00	3.13	1.73	2.98	48

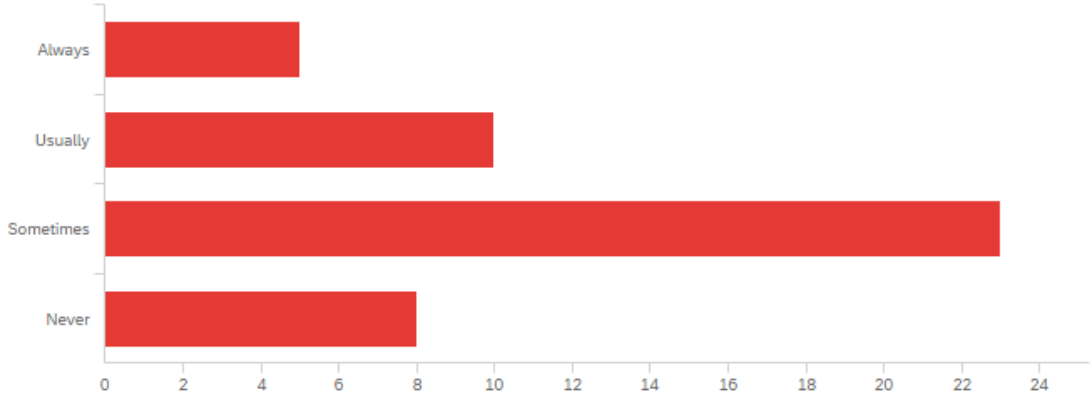
Q4: Employment Status:



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	EMPLOYMENT STATUS	1.00	7.00	2.29	1.89	3.58	48

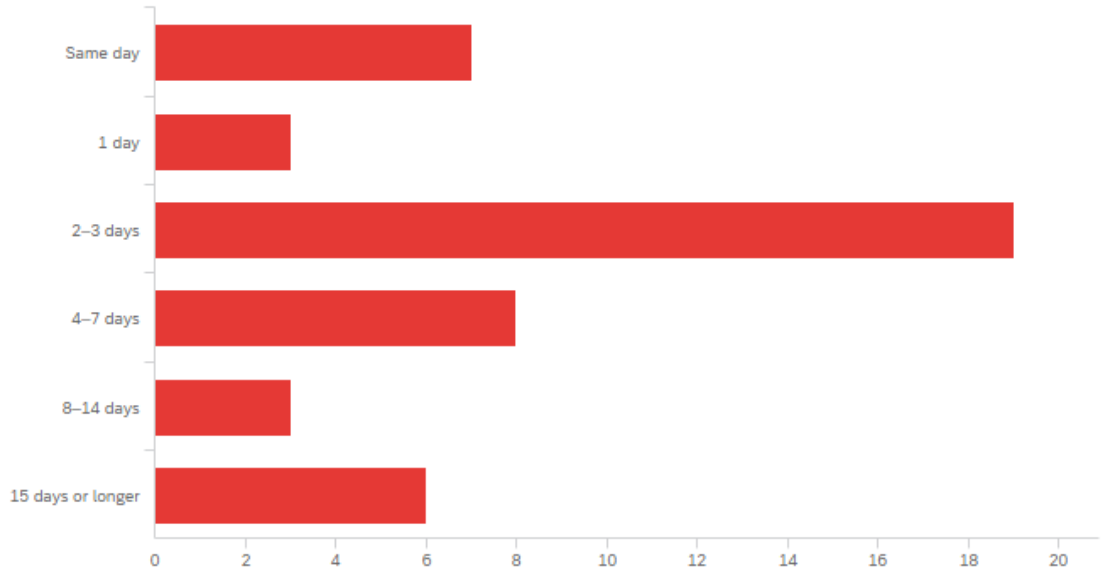
Multiple Choice Results

Q10: When you called or went to your clinic to get an appointment for care you needed right away, how often did you get an appointment as soon as you thought you needed it?



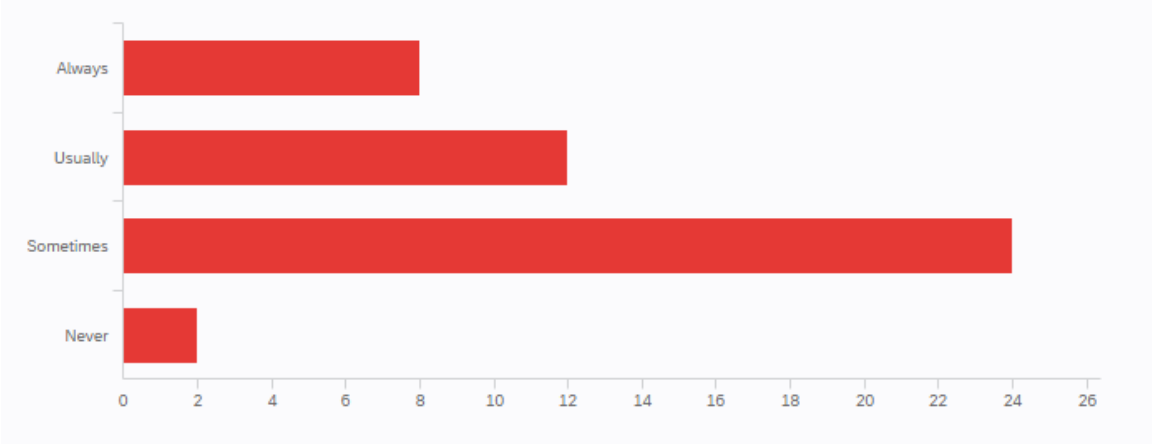
#	Field		Choice Count
1	Always	10.87%	5
2	Usually	21.74%	10
3	Sometimes	50.00%	23
4	Never	17.39%	8
			46

Q11: When you called or went to your clinic to get an appointment for care you needed right away, how long did you usually have to wait between trying to get an appointment and actually seeing a doctor or other health professional?



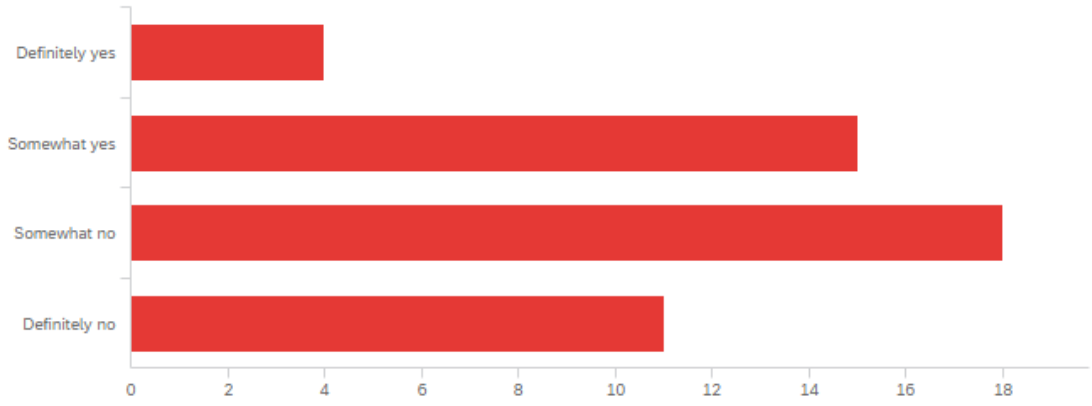
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When you called or went to your clinic to get an appointment for care you needed right away, how long did you usually have to wait between trying to get an appointment and actually seeing a doctor or other health professional?	1.00	6.00	3.33	1.48	2.18	46

Q12: Not counting the times you needed care right away, how often did you get an appointment for your health care at your clinic as soon as you thought you needed it?



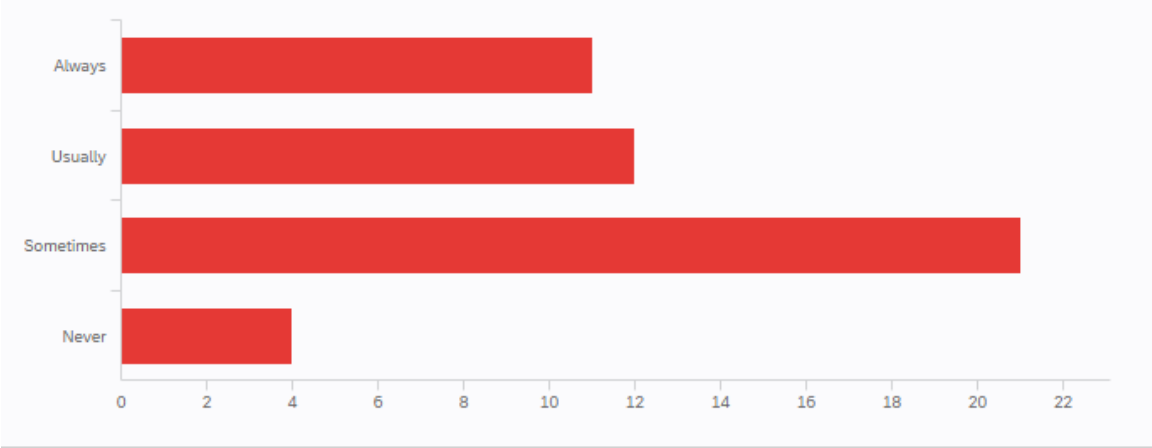
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Not counting the times you needed care right away, how often did you get an appointment for your health care at your clinic as soon as you thought you needed it?	1.00	4.00	2.43	0.82	0.68	46

Q13: After you checked in for your appointment at your clinic, were you kept informed about how long you would need to wait for the person you went to see?



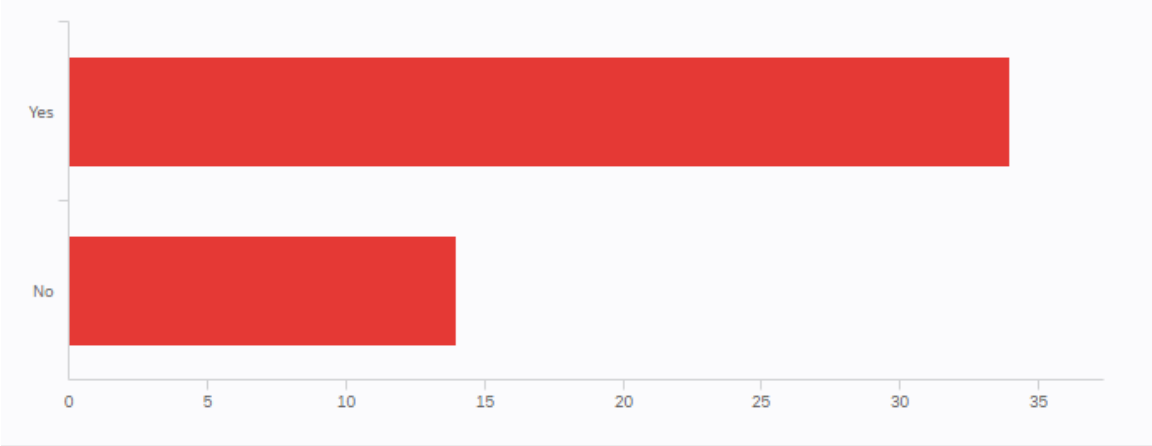
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	After you checked in for your appointment at your clinic, were you kept informed about how long you would need to wait for the person you went to see?	1.00	4.00	2.75	0.90	0.81	48

Q14: How often was it easy to get the care, tests or treatment you thought you needed?



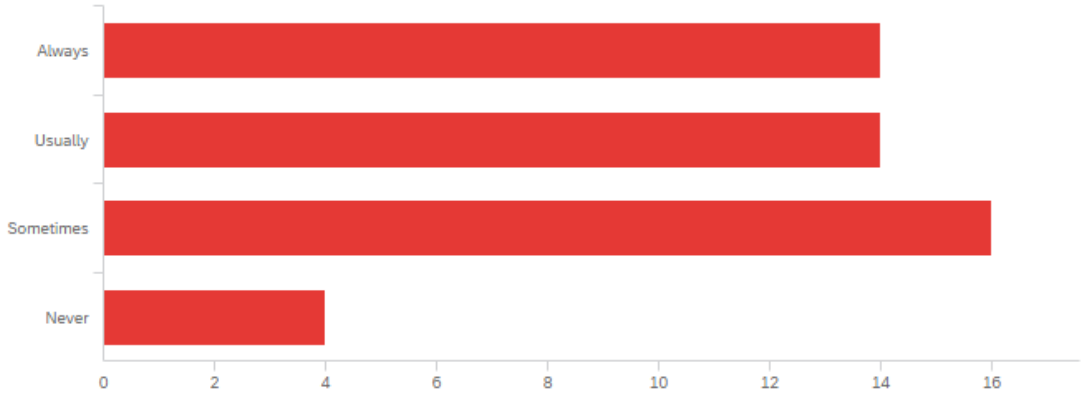
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often was it easy to get the care, tests or treatment you thought you needed?	1.00	4.00	2.38	0.93	0.86	48

Q15: Did your Primary Doctor or Nurse (PDN) encourage you to talk about your health concerns, including those that might be embarrassing?



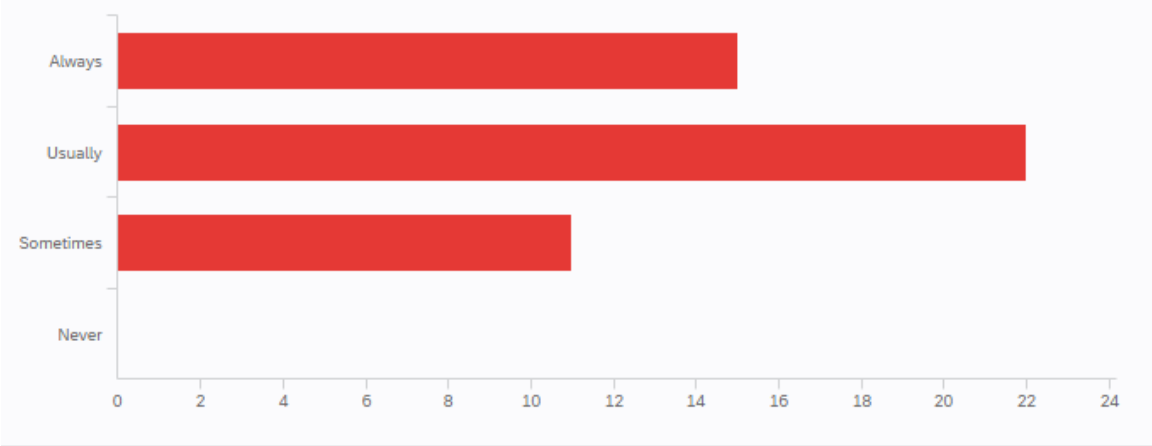
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Did your Primary Doctor or Nurse (PDN) encourage you to talk about your health concerns, including those that might be embarrassing?	1.00	2.00	1.29	0.45	0.21	48

Q16: How often did your PDN explain things in a way that was easy to understand?



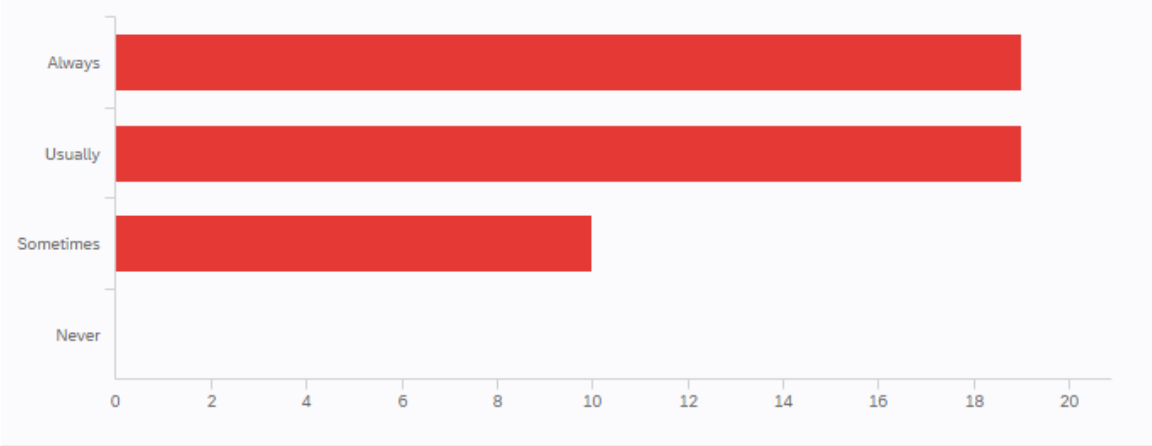
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did your PDN explain things in a way that was easy to understand?	1.00	4.00	2.21	0.96	0.91	48

Q17: How often did your PDN listen carefully to you?



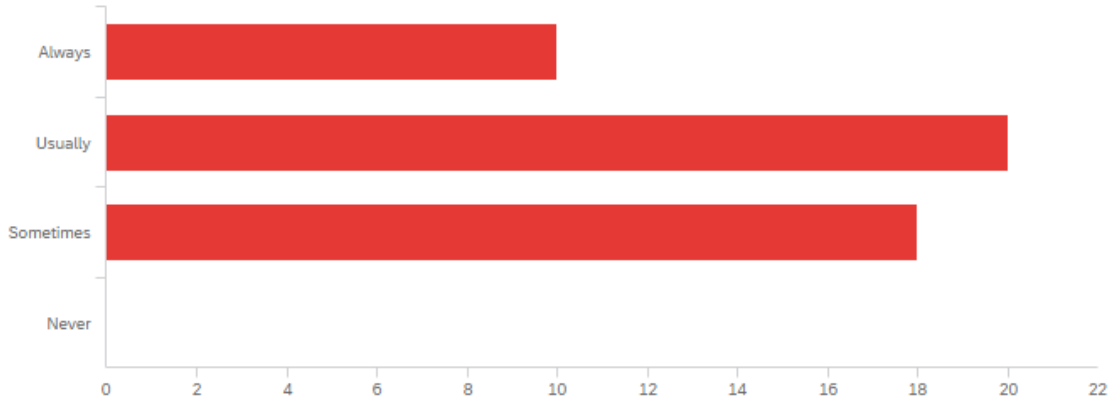
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did your PDN listen carefully to you?	1.00	3.00	1.92	0.73	0.53	48

Q18: How often did your PDN show respect for what you had to say?



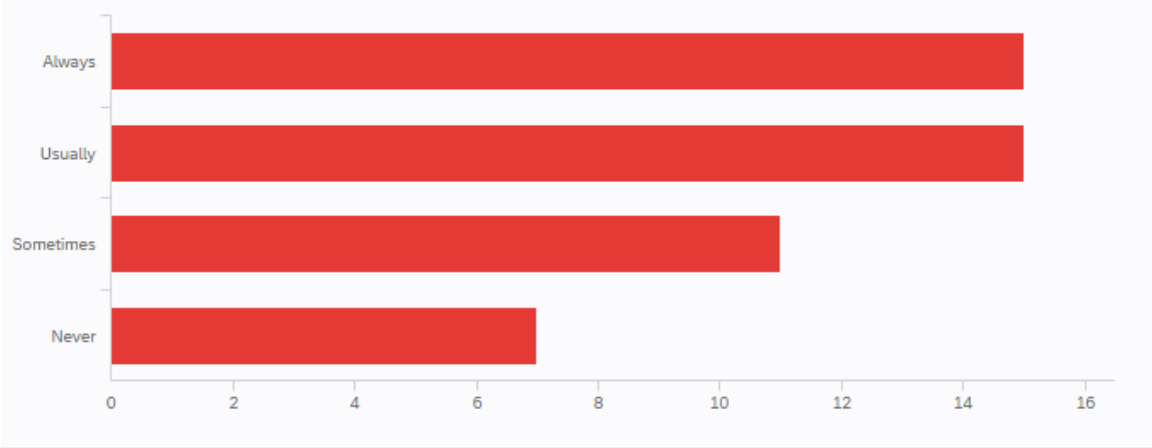
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did your PDN show respect for what you had to say?	1.00	3.00	1.81	0.75	0.57	48

Q19: How often did your PDN spend enough time with you?



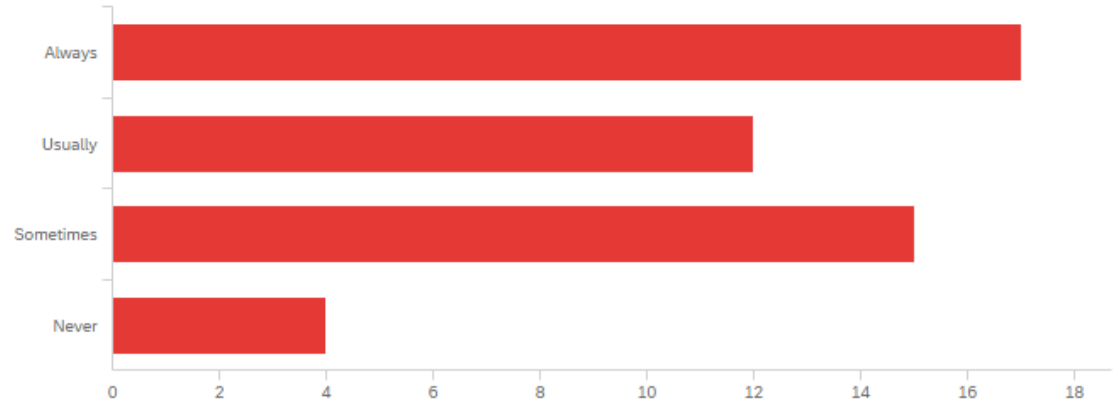
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did your PDN spend enough time with you?	1.00	3.00	2.17	0.75	0.56	48

Q20 - How often did your PDN explain the purpose of these medicines in a way that was easy to understand?



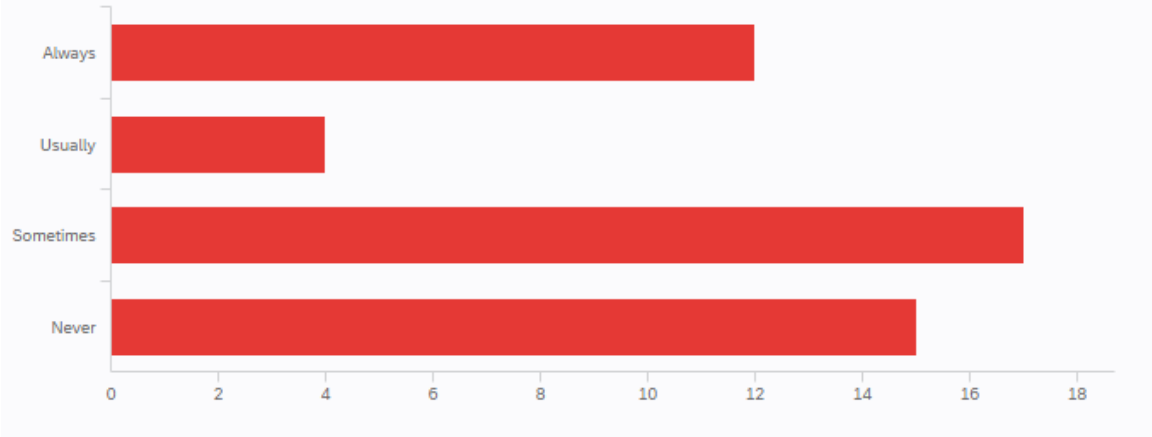
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did your PDN explain the purpose of these medicines in a way that was easy to understand?	1.00	4.00	2.21	1.04	1.08	48

Q21 - How often did a PDN explain what to do if your illness or health condition got worse or came back, in a way that was easy to understand?



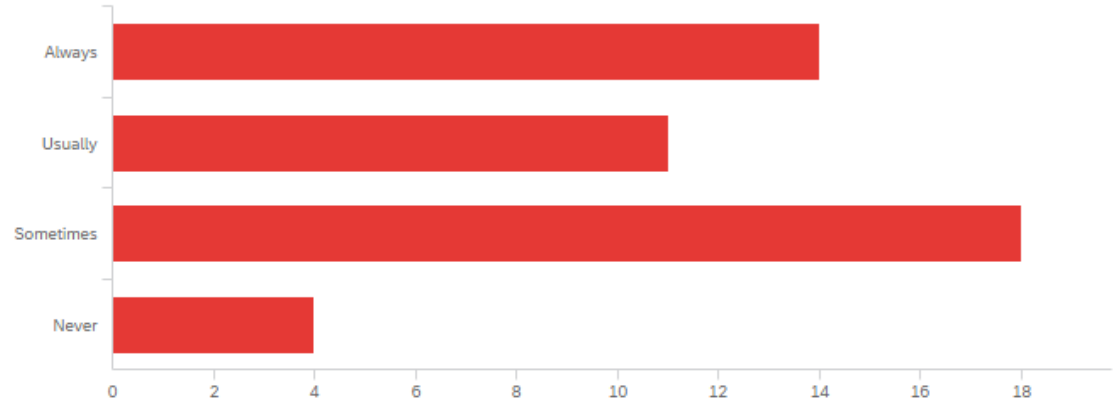
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did a PDN explain what to do if your illness or health condition got worse or came back, in a way that was easy to understand?	1.00	4.00	2.13	0.99	0.98	48

Q22 - When a health professional sent you for a blood test, x-ray or other test, how often did someone from the health professional's office follow up to give you the test results?



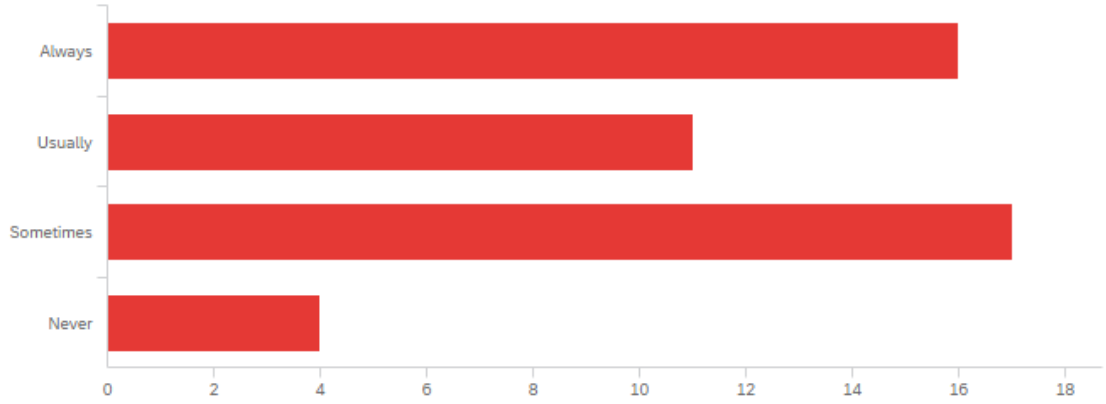
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When a health professional sent you for a blood test, x-ray or other test, how often did someone from the health professional's office follow up to give you the test results?	1.00	4.00	2.73	1.15	1.32	48

Q23 - How often did doctors or other health professionals explain test results in a way that was easy to understand?



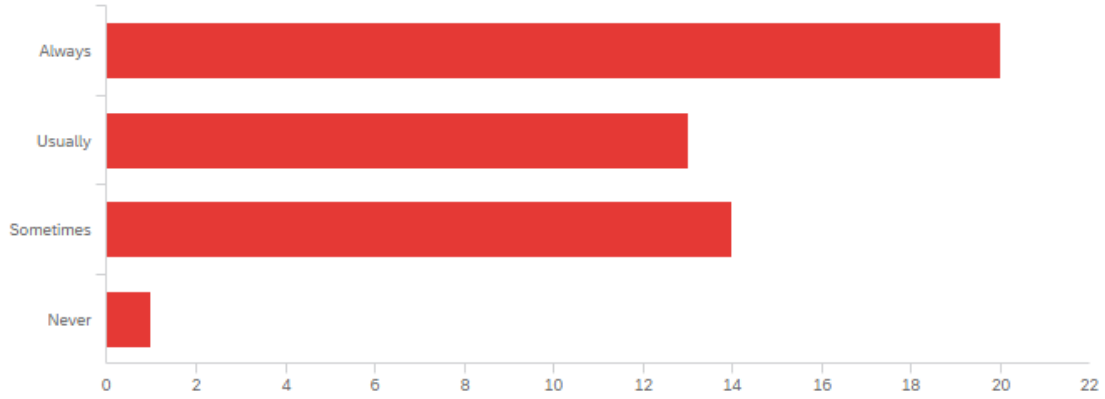
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did doctors or other health professionals explain test results in a way that was easy to understand?	1.00	4.00	2.26	0.98	0.96	47

Q24 - How often were clerks and receptionists at your clinic as helpful as you thought they should be?



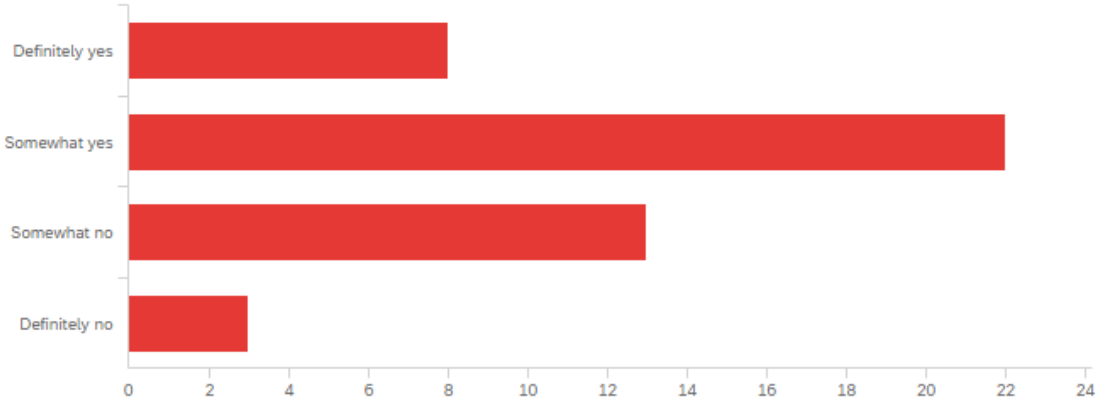
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often were clerks and receptionists at your clinic as helpful as you thought they should be?	1.00	4.00	2.19	0.99	0.99	48

Q25 - How often did clerks and receptionists at your clinic treat you with courtesy and respect?



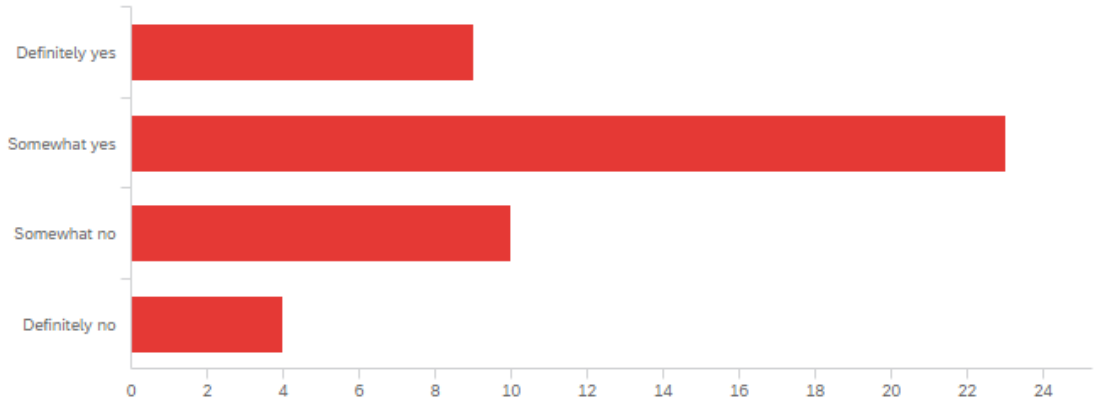
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How often did clerks and receptionists at your clinic treat you with courtesy and respect?	1.00	4.00	1.92	0.89	0.78	48

Q26 - Did a doctor or other health professional talk with you about the pros and cons of each choice for your treatment or health care?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Did a doctor or other health professional talk with you about the pros and cons of each choice for your treatment or health care?	1.00	4.00	2.24	0.81	0.66	46

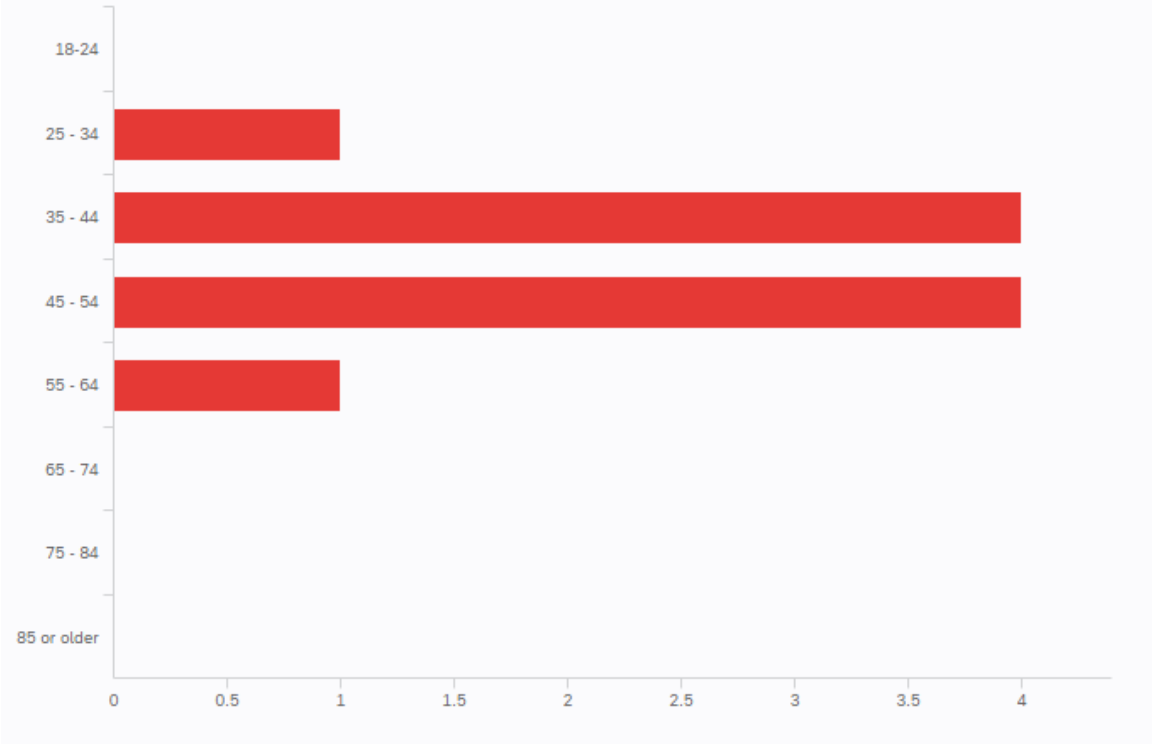
Q27 - When there was more than one choice for your treatment or health care, did a doctor or other health professional ask which choice you thought was best for you?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When there was more than one choice for your treatment or health care, did a doctor or other health professional ask which choice you thought was best for you?	1.00	4.00	2.20	0.85	0.72	46

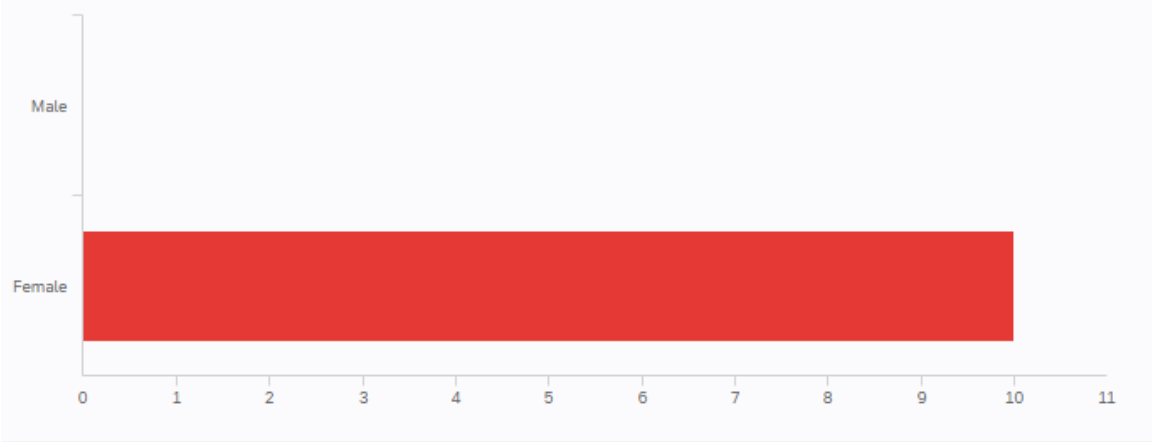
General Demographics – Staff

Q1: Age:



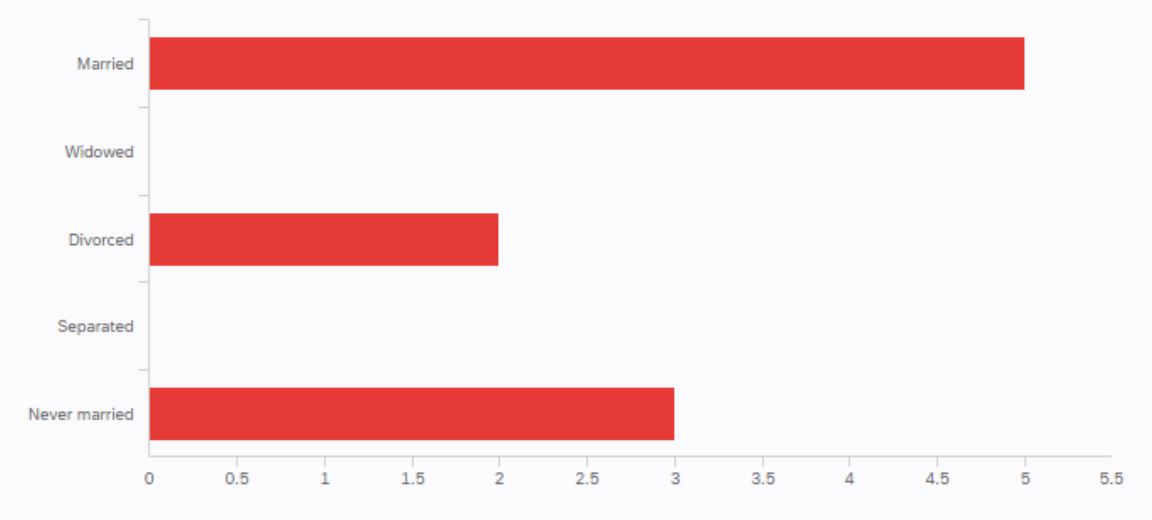
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	AGE:	2.00	5.00	3.50	0.81	0.65	10

Q2: Gender:



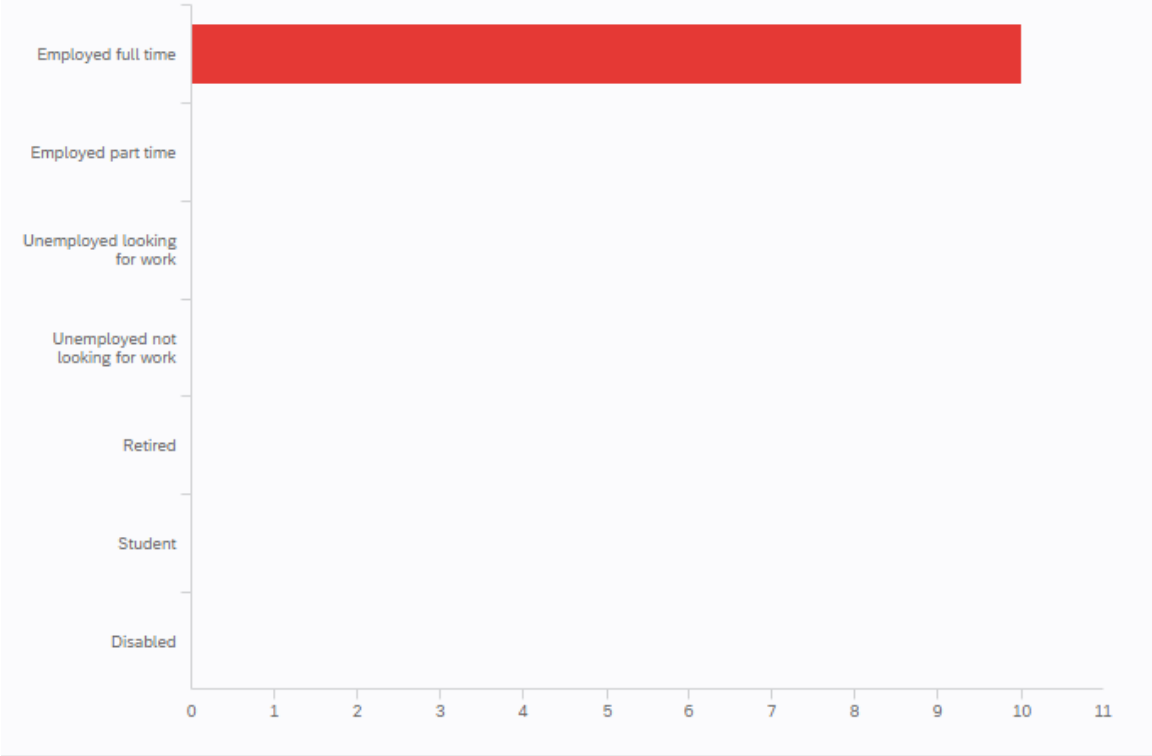
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	GENDER:	2.00	2.00	2.00	0.00	0.00	10

Q3: Marital Status:



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	MARITAL STATUS	1.00	5.00	2.60	1.74	3.04	10

Q4: Employment Status:



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	EMPLOYMENT STATUS	1.00	1.00	1.00	0.00	0.00	10

APPENDIX C

PHASE 2 DATA

Phase 2 General Demographics -Patient

Survey	Age	Gender	Marital Status	Employment Status
1	45-54	Female	Never Married	Unemployed Looking for work
2	65-74	Female	Married	Fulltime
3	45-54	Female	Married	Fulltime
4	45-54	Female	Never Married	Unemployed Not Looking for work
5	55-64	Female	Widowed	Fulltime
6	18-24	Female	Never Married	Fulltime
7	55-65	Female	Divorced	Fulltime
8	35-44	Male	Married	Fulltime
9	25-34	Female	Married	Fulltime
10	55-64	Male	Married	Disabled
11	44-54	Female	Married	Unemployed Looking for work
12	25-34	Female	Never Married	Unemployed Looking for work
13	55-64	Male	Never Married	Unemployed Looking for work
14	55-64	Female	Married	Fulltime
15	35-44	Male	Never Married	Disabled
16	25-34	Female	Never Married	Fulltime
17	55-64	Female	Separated	Fulltime
18	35-44	Male	Married	Fulltime
19	55-64	Male	Divorced	Fulltime
20	35-44	Female	Married	Fulltime
21	45-54	Male	Married	Fulltime

22	18-24	Female	Never Married	Fulltime
23	35-44	Male	Married	Fulltime
24	35-44	Male	Married	Fulltime
25	25-34	Male	Married	Fulltime
26	55-64	Male	Married	Fulltime
27	55-64	Male	Married	Part-time
28	35-44	Female	Never Married	Unemployed Not Looking for work
29	55-64	Male	Separated	Disabled
30	55-64	Male	Married	Disabled
31	55-64	Female	Married	Fulltime
32	55-64	Male	Married	Part-time
33	25-34	Male	Never Married	Unemployed Looking for work
34	25-34	Male	Never Married	Part-time
35	55-64	Female	Widowed	Unemployed Looking for work
36	55-64	Male	Married	Fulltime
37	55-64	Female	Separated	Disabled
38	25-34	Female	Married	Fulltime
39	45-54	Female	Married	Fulltime
40	85+	Female	Widowed	Retired
41	25-34	Female	Married	Unemployed Looking for work
42	35-44	Female	Never Married	Unemployed Looking for work
43	25-34	Male	Never Married	Fulltime
44	55-64	Female	Never Married	Fulltime

Item Ranking – First five

Survey	Clinic staff courteous and respectful	Getting an appointment when needed	Receiving medication refills	Receiving quality care	Seeing the same provider, familiarity with health history
1	1	2	10	4	14
2	2	4	5	1	10
3	11	10	9	8	7
4	14	7	13	1	6
5	11	1	3	12	13
6	3	1	7	4	5
7	10	1	11	9	12
8	10	5	1	3	9
9	10	5	1	3	9
10	12	2	11	1	3
11	2	3	1	14	4
12	13	2	8	1	9
13	12	2	14	5	13
14	2	13	3	10	14
15	8	7	9	1	2
16	4	2	12	3	14
17	4	3	2	11	10
18	7	5	6	1	4
19	3	2	4	5	14
20	14	13	8	1	6
21	2	4	3	8	5
22	1	7	10	4	6
23	1	2	3	4	5
24	9	8	10	1	14

25	4	5	3	1	6
26	12	2	4	1	10
27	9	5	7	1	3
28	2	1	10	3	5
29	8	7	10	9	6
30	10	4	2	1	7
31	6	5	14	3	4
32	1	2	3	4	6
33	4	5	1	2	3
34	2	3	6	1	12
35	10	5	1	4	9
36	8	7	12	9	2
37	7	1	11	3	4
38	4	3	14	2	12
39	8	1	11	9	10
40	5	3	7	2	11
41	1	2	9	3	4
42	4	2	3	1	10
43	7	14	13	12	8
44	7	8	9	1	2

Item Ranking – Second five

Survey	Cleanliness of facility	Being seen with short wait time	Being acknowledged for what you have to say	Clinic staff helpful	Diagnosis explained so that you understand
1	8	6	9	7	5

2	9	8	12	3	13
3	12	13	6	5	1
4	5	4	11	12	2
5	4	14	5	6	7
6	2	7	8	6	10
7	14	3	8	6	7
8	14	2	4	13	11
9	13	2	4	14	6
10	13	4	5	10	6
11	5	6	10	11	9
12	3	14	10	4	5
13	3	11	10	6	9
14	12	11	7	8	1
15	3	4	5	6	10
16	1	6	7	5	9
17	14	12	13	1	5
18	3	8	10	9	2
19	1	13	12	9	10
20	11	12	5	9	2
21	10	9	6	7	1
22	9	3	14	2	13
23	6	7	8	9	10
24	3	13	5	4	2
25	2	10	11	13	14
26	11	3	5	6	7
27	11	4	8	10	2
28	4	13	6	7	8
29	14	2	5	12	4

30	5	11	12	13	9
31	13	1	2	9	8
32	5	9	8	10	12
33	6	7	8	10	9
34	8	5	4	2	9
35	14	3	12	11	2
36	3	4	5	6	10
37	10	2	5	8	12
38	11	1	13	5	6
39	2	3	4	13	5
40	1	4	10	6	9
41	8	5	10	7	6
42	14	8	9	5	11
43	9	10	11	5	4
44	14	10	11	13	3

Item Ranking – Last Four

Survey	Discuss pros and cons of treatment or health care with provider	Talk about obtaining/maintaining healthy eating and exercise habits	Discuss what choice for your care you thought was best for you	Follow up appointment/information from visit.
1	11	12	13	3
2	14	6	7	11
3	2	14	4	3

4	8	3	9	10
5	8	9	10	2
6	11	13	9	12
7	5	2	4	3
8	6	7	8	12
9	7	8	11	12
10	9	14	7	8
11	8	2	13	7
12	11	12	6	7
13	7	4	1	8
14	4	9	5	6
15	11	12	13	14
16	8	11	10	13
17	6	7	8	9
18	11	12	13	14
19	11	8	6	7
20	4	10	3	7
21	14	11	13	12
22	5	11	8	12
23	14	13	12	11
24	6	7	11	12
25	7	8	9	12
26	8	14	13	9
27	12	14	13	6
28	9	11	12	14
29	11	1	3	13
30	6	14	3	8
31	7	12	10	11

32	11	8	13	14
33	11	13	12	14
34	10	11	13	14
35	8	7	6	13
36	11	14	1	13
37	9	14	13	6
38	8	7	10	9
39	12	14	6	7
40	8	14	13	12
41	13	14	11	12
42	6	13	12	7
43	1	6	2	3
44	4	12	5	6

General Demographics – Staff

Survey	Age	Gender	Marital Status	Employment Status
S1	35-44	Female	Married	Fulltime
S2	35-44	Female	Married	Fulltime
S3	35-44	Female	Married	Fulltime
S4	35-44	Female	Never Married	Fulltime
S5	65-74	Female	Widowed	Fulltime
S6	25-34	Female	Never Married	Fulltime

Item Ranking – First Five

Survey	Clinic staff courteous and respectful	Getting an appointment when needed	Receiving medication refills	Receiving quality care	Seeing the same provider, familiarity with health history
S1	5	3	2	4	1
S2	6	1	12	7	2
S3	10	11	3	1	2
S4	5	1	8	7	4
S5	3	2	13	5	6
S6	12	1	8	2	3

Item Ranking – Second Five

Survey	Cleanliness of facility	Being seen with short wait time	Being acknowledged for what you have to say	Clinic staff helpful	Diagnosis explained so that you understand
S1	7	6	9	10	12
S2	14	3	5	13	4
S3	13	14	4	6	5
S4	9	10	2	6	3
S5	1	14	4	7	8
S6	14	6	5	13	4

Item Ranking – Last Four

Survey	Discuss pros and cons of treatment or health care with provider	Talk about obtaining/maintaining healthy eating and exercise habits	Discuss what choice for your care you thought was best for you	Follow up appointment/information from visit.
S1	11	13	14	8
S2	8	9	10	11
S3	7	9	8	12
S4	12	11	13	14
S5	10	11	9	12
S6	10	9	7	11

APPENDIX D

MANN-WHITNEY TEST AND CI

Mann-Whitney Test and CI: Clinic staff cou, Clinic staff cou

	N	Median
Clinic staff courteous and resp	44	7.000
Clinic staff courteous and re_1	6	5.500

Point estimate for η1 - η2 is -1.000
95.3 Percent CI for η1 - η2 is (-4.000,4.000)
W = 1109.5
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.7202
The test is significant at 0.7191 (adjusted for ties)

Mann-Whitney Test and CI: Getting an appoi, Getting an appoi

	N	Median
Getting an appointment when nee	44	3.500
Getting an appointment when n_1	6	1.500

Point estimate for η1 - η2 is 1.000
95.3 Percent CI for η1 - η2 is (-0.001,4.001)
W = 1173.0
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.1316
The test is significant at 0.1265 (adjusted for ties)

Mann-Whitney Test and CI: Receiving medica, Receiving medica

	N	Median
Receiving medication refills	44	7.500
Receiving medication refills_1	6	8.000

Point estimate for η1 - η2 is -0.500
95.3 Percent CI for η1 - η2 is (-5.000,4.000)
W = 1113.5
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.8112
The test is significant at 0.8104 (adjusted for ties)

Mann-Whitney Test and CI: Receiving quality care, Receiving quality care_1

	N	Median
Receiving quality care	44	3.000
Receiving quality care_1	6	4.500

Point estimate for η1 - η2 is -1.000
95.3 Percent CI for η1 - η2 is (-3.001,2.000)
W = 1104.0
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.6014
The test is significant at 0.5940 (adjusted for ties)

Mann-Whitney Test and CI: Seeing the same , Seeing the same

	N	Median
Seeing the same provider, fam_1	44	7.000
Seeing the same provider, famil	6	2.500

Point estimate for η1 - η2 is 4.000
95.3 Percent CI for η1 - η2 is (1.999,8.000)
W = 1220.0
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.0036
The test is significant at 0.0035 (adjusted for ties)

Mann-Whitney Test and CI: Cleanliness of facility_1, Cleanliness of facility

	N	Median
Cleanliness of facility_1	44	8.000
Cleanliness of facility	6	11.000

Point estimate for η1 - η2 is -2.000
95.3 Percent CI for η1 - η2 is (-6.998,1.998)
W = 1091.5
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.3705
The test is significant at 0.3679 (adjusted for ties)

Mann-Whitney Test and CI: Being seen with , Being seen with

	N	Median
Being seen with short wait time	44	6.500
Being seen with short wait ti_1	6	8.000

Point estimate for η1 - η2 is -2.000
95.3 Percent CI for η1 - η2 is (-6.001,2.001)
W = 1087.0
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.3030
The test is significant at 0.3013 (adjusted for ties)

Mann-Whitney Test and CI: Being acknowledg, Being acknowledg

	N	Median
Being acknowledged for what you	44	8.000
Being acknowledged for what y_1	6	4.500

Point estimate for η1 - η2 is 3.000
95.3 Percent CI for η1 - η2 is (-0.000,6.000)
W = 1202.5
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.0169
The test is significant at 0.0160 (adjusted for ties)

Mann-Whitney Test and CI: Clinic staff helpful, Clinic staff helpful_1

	N	Median
Clinic staff helpful	44	7.000
Clinic staff helpful_1	6	8.500

Point estimate for η1 - η2 is -1.000
95.3 Percent CI for η1 - η2 is (-5.001,2.001)
W = 1090.0
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.3470
The test is significant at 0.3434 (adjusted for ties)

Mann-Whitney Test and CI: Diagnosis explai, Diagnosis explai

	N	Median
Diagnosis explained so that you	44	7.000
Diagnosis explained so that y_1	6	4.500

Point estimate for η1 - η2 is 1.000
95.3 Percent CI for η1 - η2 is (-2.001,5.001)
W = 1144.5
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.5113
The test is significant at 0.5096 (adjusted for ties)

Mann-Whitney Test and CI: Discuss pros and, Discuss pros and

	N	Median
Discuss pros and cons of treatm	44	8.000
Discuss pros and cons of trea_1	6	10.000

Point estimate for η1 - η2 is -1.000
95.3 Percent CI for η1 - η2 is (-3.999,1.000)
W = 1093.0
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.3949
The test is significant at 0.3903 (adjusted for ties)

Mann-Whitney Test and CI: Talk about obtai, Talk about obtai

	N	Median
Talk about obtaining/maintainin	44	11.000
Talk about obtaining/maintain_1	6	10.000

Point estimate for η1 - η2 is 0.000
95.3 Percent CI for η1 - η2 is (-3.000,2.999)
W = 1128.0
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.8696
The test is significant at 0.8685 (adjusted for ties)

Mann-Whitney Test and CI: Discuss what cho, Discuss what cho

	N	Median
Discuss what choice for your ca	44	9.500

Discuss what choice for your _1	6	9.500

Point estimate for η1 - η2 is -1.000
95.3 Percent CI for η1 - η2 is (-5.000,3.000)
W = 1094.5
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.4202
The test is significant at 0.4161 (adjusted for ties)

Mann-Whitney Test and CI: Follow up appoin, Follow up appoin

	N	Median
Follow up appointment/informati	44	10.500
Follow up appointment/informa_1	6	11.500

Point estimate for η1 - η2 is -1.000
95.3 Percent CI for η1 - η2 is (-4.999,1.001)
W = 1090.5
Test of η1 = η2 vs η1 ≠ η2 is significant at 0.3547
The test is significant at 0.3503 (adjusted for ties)