# Enhancing the Experience of Stakeholders in Healthcare

by

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## Abstract

Implementing effective decisions in healthcare has a dependency on understanding the different stakeholders in healthcare and comprehending the role that they play in delivering high quality patient care. Healthcare stakeholders have seen an increase in public health relevance as health systems were tasked with major increases in demand while dealing with decreased resources, supply-chain inconsistencies, and restrictions that placed an immense strain on the workforce. I had the opportunity to join the University of Pittsburgh Medical Center (UPMC) Department of Medicine (DOM) from January 2022-April 2023 where I worked alongside administrators on projects that positively impact faculty and staff across the department. I was given the opportunity to take a leadership role in three projects which contained involvement from multiple healthcare stakeholders. These three projects addressed an employee satisfaction survey for University of Pittsburgh staff members to share workplace feedback, providing a center for patients with physical disabilities to receive primary care in an innovative space, and a telemedicine service that works alongside the Hospitalist group to benefit patients in the hospital.

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## 1.0 Introduction: Enhancing the Experience of Stakeholders in Healthcare

Healthcare has seen rapid changes over the past three years requiring a pivot to meet the needs of the communities they serve. I have been lucky enough to have a front seat to some of these changes through my opportunity to work as an Administrative Resident, and now Administrative Coordinator II for the UPMC Department of Medicine. The Department of Medicine or DOM is the largest department in UPMC, promoting a tripartite mission of clinical care, research, and education. The department is led by Nichole Winovich who serves as the Executive Administrator, as well as my preceptor during my administrative residency, providing mentorship, education, and empowerment to take part in and lead projects with the department.

Understanding the key stakeholders in each of my projects was pivotal to implementing useful solutions. One of the primary stakeholders are patients, who rely on providers and staff to give excellent care and preventative services. Providers are an additional stakeholder who work to provide high quality healthcare to patients and conduct innovative research to grow our understanding of the capabilities of medicine. Medical staff assist the patients and ensure that the patient experience moves smoothly, and that all the billing and patient assistance between visits are conducted smoothly. The insurance companies are a third stakeholder. They play a key role in what is valued in the health space; patients depend on their insurance plans to pay for their care. The three projects within my project portfolio will address the individual impact each project has on the three primary healthcare stakeholders, the patient, provider, and insurer. The project portfolio will highlight how the Department of Medicine allowed me to work on projects that focus work to produce the best patient outcomes, which taught me the importance of these stakeholders working in tandem.

## 1.1 Project One

### 1.1.1 Problem Statement

Feedback from University of Pittsburgh (Pitt) staff around an imbalance of UPMC staff initiatives and input vs Pitt staff indicated the need for a Pitt Employee Satisfaction Survey (Pitt ESS). In the DOM, Pitt staff members do not have a consistent and anonymous method of sharing feedback on their workplace and work experience, whereas the UPMC staff provide input through the UPMC MyVoice surveys. The lack of a valuable feedback vehicle creates a difficulty for the leadership in that there is poor communication and a limited understanding of the current work climate for Pitt staff. Pitt ESS will provide insight on which areas will require departmental investment.

### 1.1.2 Purpose Statement

The Pitt Employee Satisfaction Survey will create a platform for the University of Pittsburgh's 581 staff members, within the Department of Medicine, to give honest feedback on their workplace environment. This multiple choice and short response feedback will provide direction for where the department should allocate its resources with the purpose of creating a more positive work experience for staff. The analysis of this project will be shared with the larger department leadership as well as with individual divisions. These divisions receive specific comments and data provided by staff in their respective areas. Filtering the feedback divisionally will provide division administrators a snapshot of strengths and weaknesses in their own divisions, empowering them to develop solutions with their team.

### 1.1.3 Introduction and Background

A core value of many organizations is that they are only as strong as the sum of their employees. While this idea rings true, it is meaningless unless the organization seeks to understand the needs of its workforce and takes steps to address them. “The employee experience” has long been used to describe employees’ interactions, impressions, and emotions about their job. The onset of the COVID-19 pandemic put an enormous strain on the employee experience, causing extreme burnout industry wide. According to an October 2021 Morning Consult report, one in five healthcare workers decided to quit their job during the COVID-19 pandemic (Becker’s). The Department of Medicine identified that currently they did not have a sufficient method of understanding the climate around the Pitt staff work experience. The Department of Medicine encompasses both clinical care, research and education meaning staff work together from both UPMC and Pitt on a regular basis, but feedback was only heard, and change experienced by UPMC employees to their working environment.

Understanding that the employees are not the only stakeholders in an improved employee experience provides additional motivation. An article by Forbes describes the importance of valuing employee satisfaction and its direct link to customer, or in this case patient, satisfaction (Forbes). Producing positive patient outcomes through the research and care given by the Pitt and UPMC staff is paramount for the success of the patient outcomes. Positive patient outcomes benefits insurance providers as well as better outcomes create a healthier, cheaper population for these companies to insure. All together this meant that there was potential for not only employee satisfaction to improve, but patient satisfaction as well, making thoughtful organization and deployment of the survey paramount to its success.

The Pitt ESS team utilized a similar template to that of the MyVoice survey, which had proven to be an effective survey and ensured equality across the Department of Medicine. The first version of the survey was released in January 2021, and I was able to be a part of the second iteration in January of 2022. The goal of the Pitt ESS team for 2022 was to build upon findings and feedback from the 2021 survey and focus on developing tangible initiatives for Pitt DOM staff that would enhance their work environment and increase staff engagement.

### 1.1.4 Methods

In developing the survey for a January 2022 roll-out, exceptional care was taken to how it was to be formatted, and the length of the survey. The team had found success in 2021 by organizing the survey into six separate themes and it was further streamlined into five themes for the 2022 survey including: employee benefits and compensation, collaboration and engagement, diversity, culture and image, and objectives. These five themes were found to best encompass the employee experience, and each contained six focused multiple-choice questions around each topic.

As a group we evaluated the possible responses which could be included for the survey, and settled on five available responses including strongly agree, agree, neutral, disagree, and strongly disagree. These results would then be grouped into favorable, neutral, and negative responses for the PowerPoint presentation to leadership (Figure 1). A new addition to the survey was an optional freeform response section that allowed for employees to give comments outside of the set multiple choice questions. I was put in charge of exporting the data from the survey and manipulating it into visuals in a concise manner to be shared with administration.

Once the survey length and content were agreed upon, it was important to provide the adequate amount of time and education around its deployment. To provide adequate time for Pitt

staff to take the survey, it was to be open on the Qualtrics survey platform for one month beginning on January 1st and closing January 31st. Utilizing the Qualtrics platform allowed for anonymity for those taking the survey, creating an environment which welcomed honest and complete responses. Communications were to be sent from the Chair's office both one and two weeks prior to the survey opening, as well as weekly during the month of January. Thorough and complete messaging was a focus for our group, as we decided to have messaging from different leaders throughout the department. These individuals included ones from the Pitt HR team, Communications Manager, and Executive Administrator to exemplify the unified backing to seeking staff feedback.

An area of improvement that was identified from the previous year's survey was the creation and utilization of the action plan form from 2021 (Figure 4). The purpose of this form was for each division to take their feedback from the survey and turn it into measurable goals which they could accomplish over the next year. I designed a new action plan document (Figure 3) which provided a table that highlighted the stakeholders involved in achieving the goal as well as challenges, deadlines, and the overall result that the division aims to achieve.

Once the survey was distributed, I provided messaging to the department and division administrators regarding the response rate for the survey. Encouraging the division administrators to echo the message to take part in the survey voiced by the department, bridged the often-felt gap between staff and administration. Our team-maintained momentum prior to, and throughout the survey month, finishing with a response rate that was much higher than the previous year.

### 1.1.5 Results and Discussion

Once the survey was completed, I shared graphs and tables with division and department administration and presented in the division administrator meeting. 291 Pitt staff participated in the satisfaction survey, an increase of 153 staff from the previous year. Analysis of the data showed that responses were more favorable as well by 2%, and less disagreeable by 8% from the previous year's survey showing overall departmental improvement. (Figure 2)

I broke down results by theme and found the theme with the highest favorability was culture and image, with an 80.41% favorable response. The strong favorable response to the DOM culture and image was a welcomed one as it proved that the values set forward by the organization held strong through the turmoil of the COVID-19 pandemic. The theme which provided the most unfavorable results was that of employee benefits and compensation, only scoring a 60.05% favorable response. (Exhibit 1). These results did not come as much surprise to the department administrators as it has been well documented that the university compensates lower in comparison to UPMC and the current market. In response, the University of Pittsburgh is currently going through the compensation modernization process which looks to develop new job structures and compensate employees fairly for the work they are performing.

The survey offered a free response section for additional comments regarding the themes discussed in the survey. The free response section received a total of eighty-nine comments, representing 30% of those who took the survey. I organized this information by theme and included both positive responses and comments around areas of improvement for the department. Areas which were identified, and created opportunities for actionable steps, was the lack of education around compensation, including benefits, promotions, and what determined an individual's pay.

Comparable results which required action were present for the lack of understanding around departmental and divisional objectives, as well as collaboration across divisions.

Sharing this information in a precise, palatable manner was important so I prepared a PowerPoint highlighting results for the overall results, individual themes, open ended response topics, and explanations around the action plan deliverables, as well as divisional results packets for the Division Administrator meeting. I presented the PowerPoint alongside my team and distributed the packets which contained division specific results as well as an action plan which I created. The action plan was divided into sections which divisions were to fill out and utilize as a guide to address division specific issues.

In response areas which constituted action and feedback from the Division Administrator meeting, I suggested our team create a follow-up survey with response questions that encourage staff to share ideas around these issues. The group initially provided some push back due to potential survey fatigue, but after additional analysis and leadership buy-in agreed to send the follow-up survey in June. The goal would provide helpful feedback around direct initiatives, which proved to be successful in identifying opportunities for initiatives put forth by the Chair's office. The follow-up surveys.

With the overall success of both the initial and follow-up satisfaction surveys, Nichole Winovich was happy to share the findings with the greater administration. In May, our Pitt ESS team had the opportunity to share the results of the survey with the University of Pittsburgh corporate Human Resources team, including Assistant Vice Chancellor Deborah Kollar. The discussion proved to be fruitful, in which it was shared that results of the survey would be taken into consideration for implementation by the University.

### 1.1.6 Recommendations

Overall, the survey proved to be effective in identifying current employee challenges and enhancing the work experience for staff at the University of Pittsburgh. Implementing changes to the way that the survey was presented, and the questions produced valuable added information which was not included on the initial survey.

Next steps taken by the Chair's Office was to implement buddy group lunches designed to encourage collaboration among staff in similar roles. I worked together with our Executive Communications Manager to organize the buddy groups which saw over one hundred employees participate across thirteen divisions, engaging with one another over an organized lunch and continuing to meet autonomous of the chair's office. Currently our team is collaborating with staff that decided to participate in the buddy groups to learn about ways we can better leverage these teams. Feedback has shown that a few buddy groups have taken the initiative to continue to use this group as a resource for knowledge around their position, while others have lost momentum following the initial luncheon. The People First Committee (PFC) was developed as an ongoing initiative that derived from feedback from the Pitt ESS collaboration and engagement theme. PFC engaged 110 staff across both UPMC and Pitt Department of Medicine, to participate in identifying solutions around the employee experience. The committee is still in its early iteration but has seen positive response through increased engagement and receptiveness to solutions from staff.

Understanding the favorable response to both the survey and these initiatives highlights the importance of putting forward an employee satisfaction survey. As a department it is important to document these successes and to share them with the larger University of Pittsburgh community. I believe that the University of Pittsburgh HR team should adopt this survey for the larger University. Currently, our executive team is in discussions about which stakeholders in the alrger

University should receive the feedback from the Pitt ESS. I would like to see this information shape the way we address topics such as compensation and diversity, both of which have proven to be sensitive subjects throughout the university.

### 1.1.7 Competency Development

In developing and organizing the data for the University of Pittsburgh employee satisfaction survey I was able to strength my competencies around performance measurement and process improvement as well as systems thinking. Presenting to executive leadership for both the Department of Medicine and the University of Pittsburgh grew my communications ability, presentation style, and leadership as I was empowered to lead many of these discussions. Participating in this project grew my appreciation and understanding of Human Resources Management and its valuable place in the workplace. This project provided a challenge to myself and the department to find ways for Pitt employees voices to be heard; this was achieved through the survey and the initiatives that followed.

## 1.2 Project Two

### 1.2.1 Problem Statement

Research performed by the UPMC Health Plan (HP) indicated that individuals with physical disabilities do not have a location where they can receive care tailored to their needs. In addition, to address multiple conditions they often require treatments from various specialties in

various locations. This population often do not get the total care they require, which results in frequent in-patient visits to the hospital. The UPMC Health Plan (UPMC HP) approached the UPMC Department of Medicine with a proposed partnership to build a comprehensive center for patients with physical disabilities.

### 1.2.2 Purpose Statement

The purpose of this project is to create a center that provides specific care focused on individuals with physical disabilities, as well as providing an innovative space for these patients to engage with one another. UPMC Health Plan and the UPMC Department of Medicine are working together on this initiative which currently will only be available to UPMC Health Plan members. By creating this center, the UPMC Health Plan will have a location to refer new and existing members with physical disabilities. The center will be available strictly to Health Plan members, the Health Plan will be funding both the capital and operational costs. The project will look to repurpose a current space within the Pittsburgh area that is accessible and provides the space necessary for the patient's visit.

### 1.2.3 Introduction and Background

Individuals with physical disabilities have experienced health disparities and inequities. The National Council on Aging offered data that shows that people with disabilities have higher rates of obesity and cigarette smoking and are less likely to be physically active (CMS). This poses an issue for individuals with physical disabilities entering a typical environment such as a clinic where policies and infrastructure are not put in place to aid. Typical clinic environments are built

to serve able bodied people that can maneuver without assistance. Evidence of this fact is strong in Pittsburgh where many outpatient clinics are housed in the Oakland area. Traffic is imminent, and parking is extremely difficult with the increased amount of construction among many outpatient facilities. Entries and exits are often rushed and narrow throughout the clinic making a wheelchair and other equipment difficult to navigate. Staff are also not trained in a way that prepares them for assisting with individuals who have disabilities.

Providing a space that will eliminate these barriers and engage patients with physical disabilities in activities will improve overall health. The American Disability Association speaks about how important it is for individuals with disabilities to receive routine care. For many identifying minor problems early can allow for treatment before the ailment ends of causing major life-threatening problems (ADA). In response, UPMC Department of Medicine is looking to make a space that provides the necessary care for this patient population.

In considering the stakeholders of the project each would play a significant role in delivering quality patient care. Insurers in this case are the UPMC Health Plan which will work alongside of physicians and administration in the hospital to create a center that serves the specific needs of the patients. Providers would need to staff the center and understand the population and the tools necessary to achieve good patient outcomes. Most important is the patient who is to be the beneficiary of the center and the care which is received. Coming to the center for care and sharing their experience will be crucial for achieving positive health outcomes and increasing the patient population year over year.

### 1.2.4 Methods

The first step in being able to create the center was to establish the patient population and determine the amount of Health Plan members that could be using this center. These steps were performed by the Health Plan team which focused its efforts on individuals inside of Allegheny County, identifying a total of around 6,500 patients that live in the county which could realistically utilize the clinic. Understanding that not all these individuals would utilize the clinic, DOM and the Health Plan looked at the chronic conditions and needs that were most prevalent in this population to utilize as guidance for the wholistic care goal of the clinic. The top three were utilizing a wheelchair/hospital bed, central nervous system disease, and reduced mobility based on activities of daily life. Research showed that this population of individuals oftentimes have two or more conditions, including around mental healthcare, which was considered in the implementation of this center.

With a patient population identified the group was able to move forward with selecting a location and begin to look at the staffing model and return on investment for the clinic. Prior to my involvement on the project the group had identified a location in South Side on Jane Street that met the space need for the clinic. The target of the first year for the clinic was four hundred patients (Table 1) and a 7,000 sq ft of clinic space allows for growth. Being centered in South Side there is ample parking lot parking, as well as high accessibility with different bus routes. Another UPMC clinic being located at the end of the building, along with a Quest Diagnostics center in between made it the perfect location.

In the development stage of the clinic, the Health Plan and the Department of Medicine met with a Boston Consulting Group who has stood up a center for a similar patient population. I was able to work with the Director of Operations Rachel Gerhardt, for the Division of General

Medicine and put together questions for this group that would direct how we approached the inception of the clinic. I worked to engage our team focusing on disability resources to better understand the additional requirements that these patients would need in the clinic. We discussed the ADA regulations as well as the exam room size that would need to be adjusted to accommodate wheelchairs, larger patients, caretakers, etc.

Coordinating a meeting with the center design team allowed us to critique the model that they had put together for the clinic regarding the space (Figure 5). The model that was presented did a wonderful job laying out the clinic in a manner that allows a patient to flow from one side to the other without many obstacles but missed the target in making the environment innovation and engaging. Together with the design team we worked to open the reception space and create a more welcoming environment for patients, and a build-out socialization space that allowed for additional activities and engaged outside of the typical primary care.

Staffing was also going to be a big focus for the center. The amount that would be needed for the patient population would need to be additional to incorporate the needs of the population. Initially Rachel and I mocked up a staffing model that offered a lean staffing model for the center, but an additional infusion of capital from the health plan allowed us to build the model out further. Building out the model posed difficulties as it is challenging to estimate what the correct number of staff is to support the population. I utilized data from clinics that see a similar patient population, as well as input from the physician leads and our executive leadership team. I utilized this information to complete the additional staffing model expansion and added additional FTEs regarding support staff and mental health care (Table 1).The next step was looking into physician recruitment for the medical director position, where currently the model is still under review with

finance and will need additional edits before moving forward with the contract with the Department of Medicine and the Health Plan.

### 1.2.5 Results and Discussion

While this project is still in progress, it has continued to progress. The vision for the center continues to evolve as this space will not only be a facility that is accessible to all types of medical needs, but a space that provides adequate resources in terms of parking, faculty, and staff. Staff and physicians will be trained to assist patients, with patient visit lengths being longer to allow for additional accommodations. The newly named Accessible Care Center (ACC) is currently still in the development phase with a leasing agreement being finalized for the building as well as approvals being granted for both the staffing and return on investment projections.

Throughout the process the group has encountered different challenges especially related to biases within both the Physician Services Division (PSD) as well as the Health Plan. Since the Health Plan is funding the complete project and has identified the patient population which needs streamlined care, the HP would like to movie forward quickly with the project and fill the immediate need. PSD on the other hand will oversee running the center and ensuring its viability over several years. In turn discussions are more prolonged, and there is not as much of a rush to implement the clinic, as quick implementation could lead to critical errors in its establishment that makes the center a losing venture. Conversations about the role of incorporating an additional UPMC program, with both UPMC and Non-UPMC insurances has been discussed (Table 3). These discussions are crucial to moving the project forward and incorporation of the Accessible Care Center would necessitate a plan for what incorporation of non-UPMC insurances would look like for billing of services.

Another barrier the group has faced is the understaffing of divisions and delays in service lines. Like many healthcare organizations, UPMC is short-staffed across many of its divisions, including those which are non-clinical. With the project encompassing both UPMC and the HP input from multiple divisions on either side was needed to move the project forward, with responses often being delayed due to the lack of sufficient staff. Construction service lines provide additional delays that pose a barrier which the project will encounter as it moves towards beginning a remodel of the clinic space.

### 1.2.6 Recommendations

Moving forward this project looks to be a positive introduction to the Department of Medicine, UPMC Health Plan members and the greater Pittsburgh community. As the Accessible Care Center looks to move towards the grand opening it is on the track to meet all the objectives outlined in the purpose statement in providing a place for individuals with physical disabilities to receive focused care. As the project continues to develop it will be important to set targets for staffing, training, patient care flows, marketing, construction, physician, and compensation models. Setting targets will maintain strong levels of communication across both PSD and the Health Plan, driving the project forward and minimizing the risk of elements contributing to the clinic's success being left behind.

### 1.2.7 Competency Development

This project worked to challenge my analytical thinking skills as I collaborated with the team to figure out what pieces of the center would need to deviate from the norm and become

adapted to fit the population. Developing greater communication skills along with systems thinking in working with the Health Plan in a partnership. I was tasked with leading the PSD side for a period enhancing skills of leadership, accountability, and performance management as I shared out progress bi-weekly with the team, meeting deadlines, and fielding questions regarding steps moving forward. Overall, this project enhanced my professionalism as I learned to take feedback both positive and constructive, growing a greater understanding of how to use both types of feedback in a motivational way.

## 1.3 Project Three

### 1.3.1 Problem Statement

Currently when Hospitalist physicians are out because of COVID-19 patients must wait to see a different physician with virtual option available. Hospitalist physicians are extremely stressed and burnt out due to high volumes and reduced staffing which means that when one physician is out due to COVID-19 or another illness providers and patients feel a negative downstream effect. With no change patients will continue to have longer wait times for physicians, increasing their length of stay, while Hospitalist physicians continue to burnout.

### 1.3.2 Purpose Statement

The purpose is to address the in-patient visits when Hospitalist physicians are out with a telemedicine solution. This project will look to find a solution to delivering the same quality of

care from physicians that are out with illness or in a different location. The project will be piloted in the UPMC Presbyterian and Montefiore hospitals, with the understanding that with success it can be taken to the larger Department of Medicine

### 1.3.3 Introduction and Background

In the years that have followed the onset of the pandemic, individuals continue to contract COVID-19. In response individuals including physicians need to quarantine for the allotted period from the CDC regardless of symptoms. More recent strains of the pandemic and increased vaccinations have seen more individuals who contract COVID-19 to be asymptomatic.

Physicians feel a burden when they are out sick and unable to take care of their patients. In a survey reported on by the Jama Network in 2014 reported that 60% of physicians had collaborated with patients while ill. Operating in this manner puts a stress on the physician as they are not operating at full capacity, while also putting a compromised patient at a higher risk. Introducing telemedicine will look to lighten the burden experienced by these physicians and look to continue to incorporate physicians who are asymptomatic, but cannot see patients in person, back into service. Patients are also open to this type of care with 76% of patients in a study done by McKinsey & Company sharing that they will continue to use telehealth visits moving forward even after COVID-19 (Assitentcy)

In-patient telemedicine will provide the Hospitalist with an option for asymptomatic physicians at home to still see patients. Additional benefits include recurring situations where physicians must travel to see patients across the Oakland campus (Magee, Mercy, Presbyterian, Montefiore) hospitals. In-patient telemedicine will allow patients to be seen sooner and give the Hospitalist physicians the ability to see more patients. The benefit to the organization will be more

patients being able to be seen in a timely manner, increasing patient satisfaction, while also increasing physician satisfaction through decreased travel time. Additionally, a study by Massachusetts General Hospital felt their quality of telehealth care was 25% when performed virtually (Eagle Telemedicine).

The success of the program will depend on support from insurance companies in the way that they reimburse for the service. All stakeholders including physicians, patients, and insurance companies need evidence that the same level of care and outcomes can be achieved through in-patient telemedicine. Addressing physician concerns centered around the quality of care for patients that which is delivered, consistency with technology, and the availability of presenters will prove crucial along with working to build trust and build confidence through the resources I put together.

### 1.3.4 Methods

I had the opportunity to explore a telemedicine option for the Hospitalist group through the Department of Medicine. One of my learning objectives was to be able to gather an understanding of inpatient operations which this project aligned with perfectly. To begin I traveled to Jameson hospital to learn about their telemedicine practices and how they were able to implement them into the Telemedicine space. I learned how to operate the equipment on both the part of the presenter and the physician. Seeing patients and operating the camera along with the Bluetooth stethoscope provided me a firsthand experience with the patients and having a physical impact on their care. While at the hospital I had an opportunity to interview a nurse who operated the telemedicine cart full-time at the hospital. Her insight regarding troubleshooting technology, interacting with patients and physicians, along with helpful hints such as chewing gum to combat bad smells gave

me insight into the tele-presenter experience. I brought this knowledge back to our team at UPMC Presbyterian and began working on a plan that would allow the Hospitalist team to utilize this service to cover all three hospitals of Montefiore, Presbyterian, and Magee. I developed a relationship with the lead Hospitalist physician who was a supporter of utilizing Telemedicine and provided full backing for the pilot.

Beginning the process, I familiarized myself the stethoscope, created a presenter schedule (Table 2) and conducted mock visits with physicians as patients to identify the process flow which would be easiest to utilize (Figure 7). The workflow looked at the optimal order of events and communication pre-visit and post-visit. Working with both the physician group the telemedicine team our group determined that a combination of Vidyo for video communication and Microsoft Teams for typed communication would be optimal. Typed communication would initiate the visit identifying the necessary patients for a tele-visit, providing location and room number. The tele-presenter would then make the nursing unit aware that a tele-visit was going to take place followed by transporting the telemedicine cart with a speaker, camera, and laptop to the patient room. There the physician and presenter would connect outside of the room to confirm the patient information and then move forward with conducting the visit. Post-visit the physician would share the next patient's information and conduct the attestation as the presenter moves the cart to the next patient room.

In considering the patient flow it was important to consider patient safety as well, making sure gloves were used and proper masking as well. It was determined that patients with airborne diseases such as COVID-19 would be ineligible for the in-patient telemedicine service to provide protection for the tele-presenter. I bundled this information along with additional set-up information into training manuals for both the physicians and the tele-presenters (Figure 8 and

Figure 9). Both manuals outlined the process start to finish of utilizing the hardware and software necessary to complete the visit. I presented these materials along with a script that I put together for each visit (Figure 6), to maintain consistency in communication with patients to the DOM leadership team.

I had the chance to pilot the program with an ID physician where together we conducted seven patient visits. Most visits went quite smoothly but we were able to identify points of issue that needed to be addressed related to the technology. Coupled with the resources that I received from Jameson I was able to finalize materials for both presenters and physicians to begin utilizing the service.

### 1.3.5 Results and Discussion

I was able to utilize the materials to train fifteen Hospitalist physicians on how to utilize in-patient telemedicine using the resources which I put together. Unfortunately, the project stalled after a changeover in the Hospitalist leadership and barrier related to getting additional tele-presenters outside of just myself. As a team we looked to address the issue of tele-presenters and potentially utilizing a student's pool, but unfortunately the cost associated with the additional FTE's would be too large for DOM. I was lucky enough to be able to see three more patients with the telemedicine service where I was the tele-presenter and conducted the patient visit for the lead Hospitalist. The process went smoothly, and it seems that the process flow which had been enacted was efficient. During these visits I asked for patient feedback on how they felt their visits went and compared to an in-person visit. Overwhelmingly the feedback was positive, where patients with varying illnesses felt that the quality of care which they received was equivalent to that of an

in-person visit. With this response I feel that the future is bright for potential utilization of the program into the future.

### 1.3.6 Recommendations

Currently we are working to find a way to utilize the telemedicine service as an additional in-patient resource. Working through difficulties with such a large group at stake has taught me the value of resilience and consistency. It also allowed me to have exposure to my second learning objective of assessing problems in healthcare and developing solutions from inception to completion. While the project has not reached the completion stage, it is exciting to see the potential of this program and the patients that could benefit from the service.

### 1.3.7 Competency Development

Engaging in the project developed my ability to think analytically in relation to creating creative solutions in the healthcare space. Tele-presenting also offered a space for me lead my first project for the department, and enhanced my communication skills with physicians, and professionalism in the way I interacted with physicians. I was tasked with being accountable both to moving the project forward and tele-presenting to patients at the agreed upon times. Beginning the tele-presenting process, I was quite unfamiliar with many of the electronic health record applications. This project challenged me to develop my information technology management skills, and ability to troubleshoot in a quick manner.

## 1.4 Conclusion

Having the opportunity to work on these three projects has grown my knowledge around the importance of patients, provider, and insurers as stakeholders in healthcare. I learned about the impact that considering each of their roles in a project has in the success of its outcome. Throughout these three projects I was able to gain some valuable hands-on experience that helped grow my understanding of the role that healthcare administrator plays in the hospital. I am excited to be able to remain with the Department of Medicine and continue to build upon the current success of these projects and produce employee and patient centered results.

Leading these projects alongside the team at the Department of Medicine reinforced many of the competencies that I have been taught in the Master of Health Administration program at the University of Pittsburgh. My primary areas of growth were in analytical thinking and communication, as well as leadership. I grew the most in my analytical thinking pushed me outside of my comfort zone and developed my ability to evaluate analytical and tell a story with the data that I captured. A background in Human Resources meant the communication piece was a more comfortable competency to refine. I am extremely grateful for the opportunity that the Department of Medicine provided for me to join the team, grow as a future leader in healthcare, and look forward to continuing to work in tandem to create a stronger UPMC.

## 2.0 Figures and Tables

### 2.1 Figures

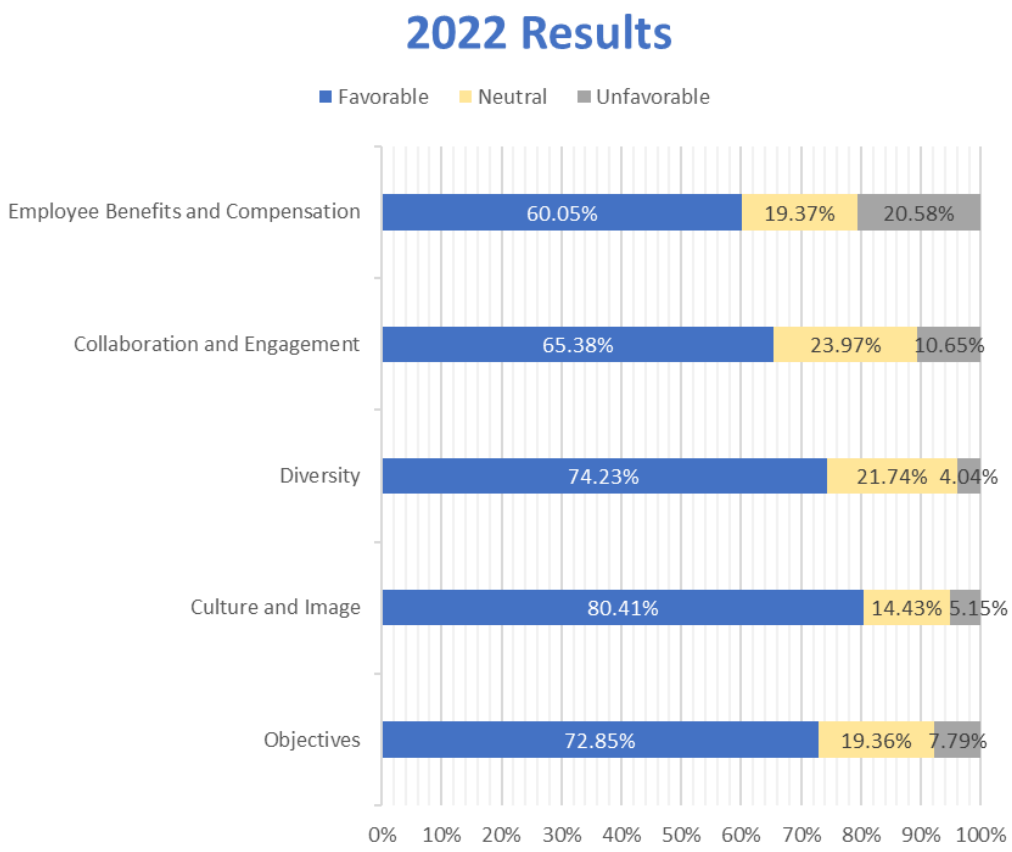



**Figure 1: 2022 Employee Satisfaction Survey Data by Theme**

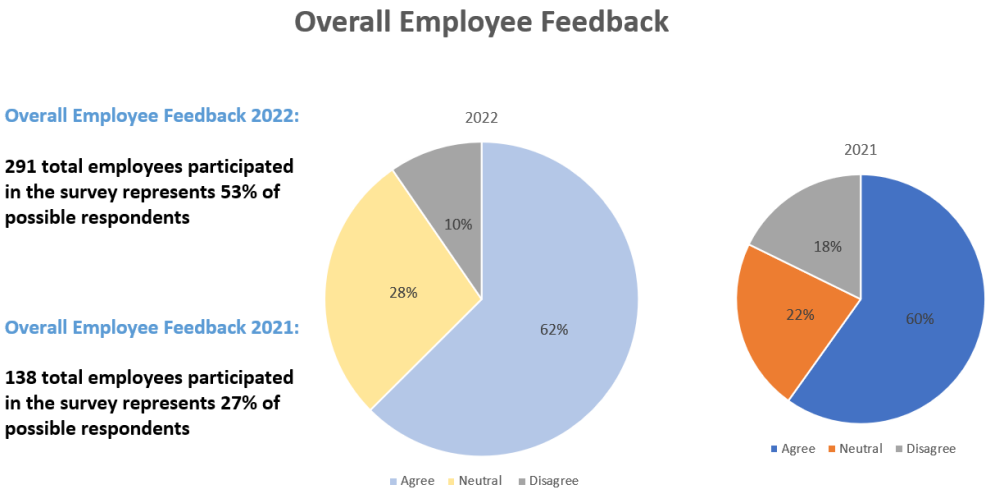



**Figure 2: 2022 Employee Satisfaction Survey Feedback Data 2022 vs 2021**

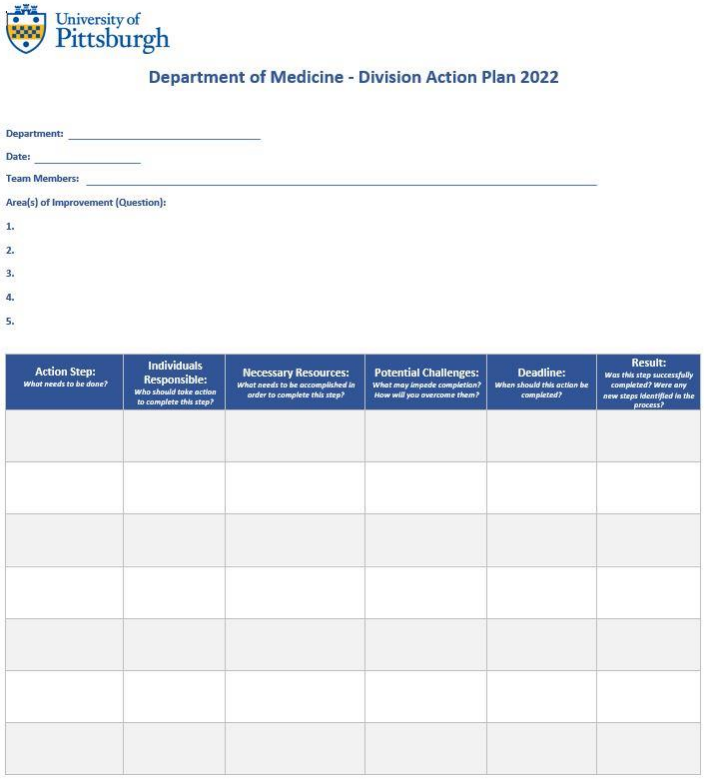



**Figure 3: 2022 Divisional Action Plans**

University of Pittsburgh

## Department of Medicine - Division Action Plan

Chair's Office

Date Completed: By:
Date Last Updated By:

| Engagement Question or Dimension | What are we trying to address? | Action Step(s) | Person(s) Responsible | Target Completion Date | Status (Completed/Pending) |
|---|---|---|---|---|---|
| The DOM is ethical and I trust management to lead us effectively | Dignity/Ethics | | | | |
| People are concerned about what is good for the DOM | Culture | | | | |
| People are focused on solutions, rather than blame | Culture | | | | |
| Employees treat other employees with good customer service | Culture | | | | |

**Figure 4: 2021 Divisional Action Plans**

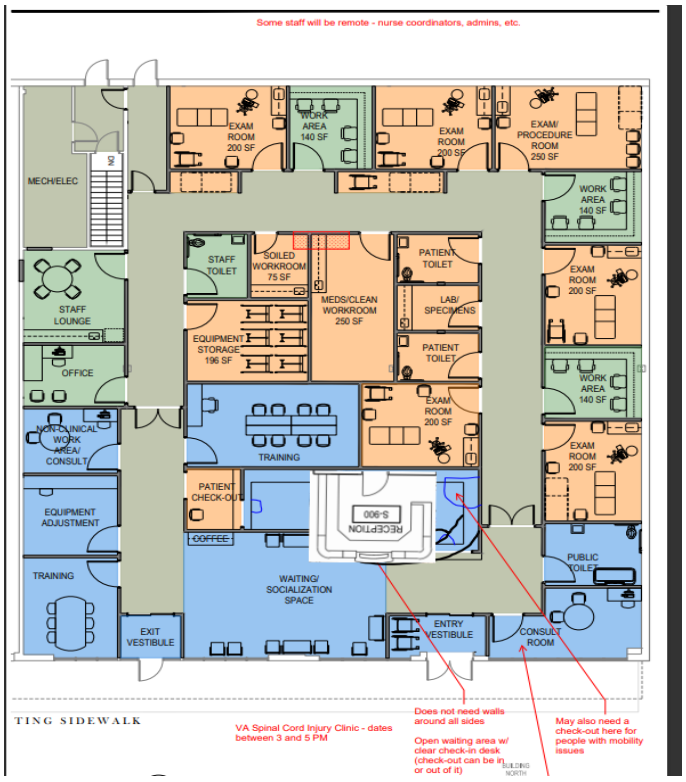



**Figure 5: Accessible Care Center Internal Layout**

## Tele-Presenting Script and Visit Process

**Physician Equipment needed prior to initiation of visit:**

- Desktop top, laptop, or cellular device
- ***Recommended*** Dual-monitor or laptop + cellular device
- Noise cancelling headphones
- Secure internet access
- Private and quiet workspace

**Physician identifies patient appropriate for telemedicine visit:**

- Exclusion criteria: Airborne viruses, confusion unless surrogate can provide appropriate history
- Provide Tele-Presenter with hospital, unit #, and room # via Microsoft Teams
- Tele-Presenter responds and a timeframe is agreed upon when the meeting with the patient will occur
- Tele-Presenter sets up Tele-Medicine Cart and makes calls to nursing units

**Outside Patient Room:**

**Presenter connects Logitech Camera, Eko Stethoscope, and Jabra Speaker via Bluetooth. The presenter then searches and joins the physicians Vidyo room.**

**Presenter: "I am all set up on Vidyo outside of the patient room are you able to both see my face and hear my voice?"**

*Sanitize hands, apply gloves, close curtain, and turn on Light A and B on patients' remote control*

**Patient Introduction:**

***Position physician on either side of the patient and place Jabra speaker on bedside table***

**Presenter: "Good morning/Afternoon Mr. or Mrs. (insert patient last name)"**

*Request pronunciation from the patient if necessary*

**Presenter: "My name is (insert name) and I am working with the hospitalist team. Here is a brochure if you would like some more information about our hospitalists."**
(Present brochure)

**Presenter: "To expedite your care, I am going to connect you with one of our physicians (Introduce Dr. (Last name)). Dr. (Last name) is available via telemedicine immediately, but I can assure you if the need arises a physician is available to see you in person. They are in a private space with headphones in to ensure confidentiality of your visit. Is now a good time?"**

**Figure 6: Tele-Presenting Script**

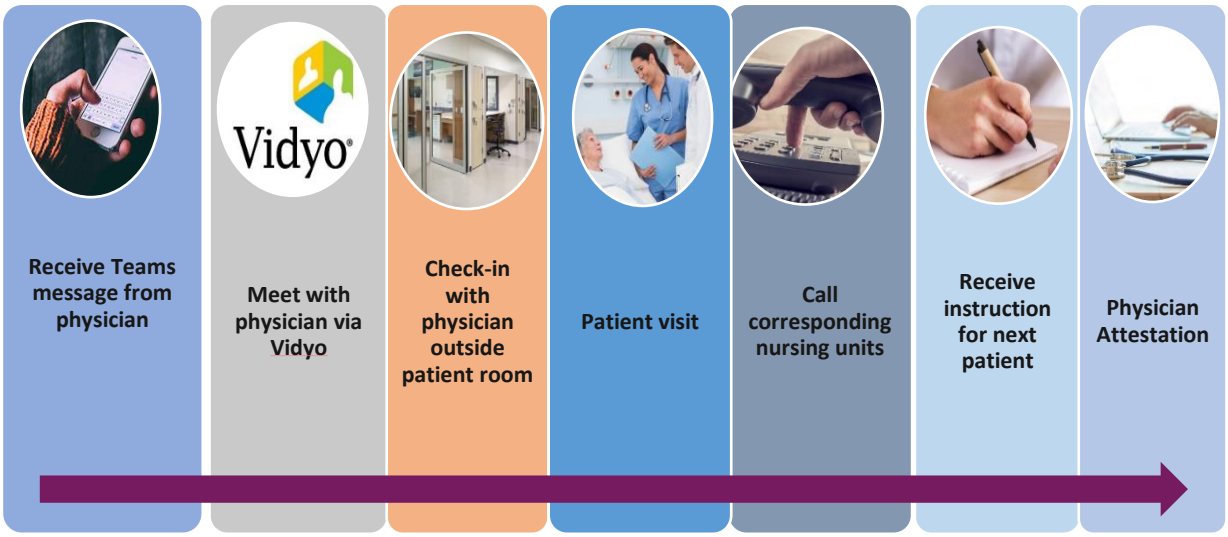



**Figure 7: In-Patient Telemedicine Process Flow**

# Stethoscope (Cont.)

**Tap the chest piece on the stethoscope to make sure that the lines are appearing on the Eko application screen**

**Check the bottom ribbon of the application to ensure that the "Live Stream" is toggled to off on the computer**

**Leave Application minimized**

**When the physician is ready to utilize the stethoscope, clinician/presenter toggles Live Stream to ON in the Eko app**

**MUTE YOUR TEAMS APPLICATION**

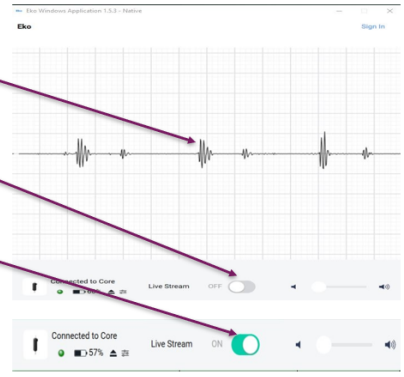
**Check battery level on the application screen to see if stethoscope is charged**
**If not over 50% charged plug in charger on the side of the device into computer after visit is complete**

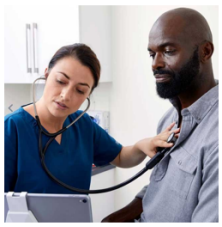
**During the visit ensure that you maintain a direct line between the computer and the stethoscope**

**Obstructions can include:**

- Furniture
- Patient
- Presenter
- Bedside Table

**Once the assessment is concluded the provider/receiver can turn the Eko stethoscope OFF and close the Eko app until the next visit.**



8

UPMC LIFE CHANGING MEDICINE

**Figure 8: Eko Stethoscope Training from Physician Training Manual**

# Computer/Vidyo Set-Up

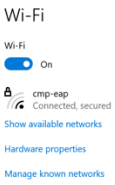
5

**Turn on Computer**

**Check battery level and that the computer is plugged in**

**Check Wi-Fi Network connects to CMP-EAP**

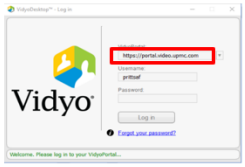
- Tele-Presenting computers can often disconnect from the network
- If the Wi-Fi shows as no internet disconnect and reconnect to the network




**Open VidyoDesktop Application**


**Login with UPMC username and password**

- Check that portal.video.upmc.com appears at the top right corner of the screen

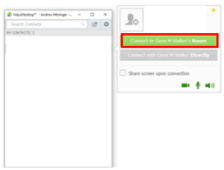



**Join Physician Room**

- Search physician name in the search bar and select the section

**Select tab highlighted in green "Connect to (Physician Name) Room"**

- Check that camera defaults to the Logitech camera and that the screen view is in speaker view
- Check the sound settings and select the "Jabra Speaker 510 USB" as the sound selection



UPMC LIFE CHANGING MEDICINE

**Figure 9: Presenter Training for Computer/Vidyo Set-Up**

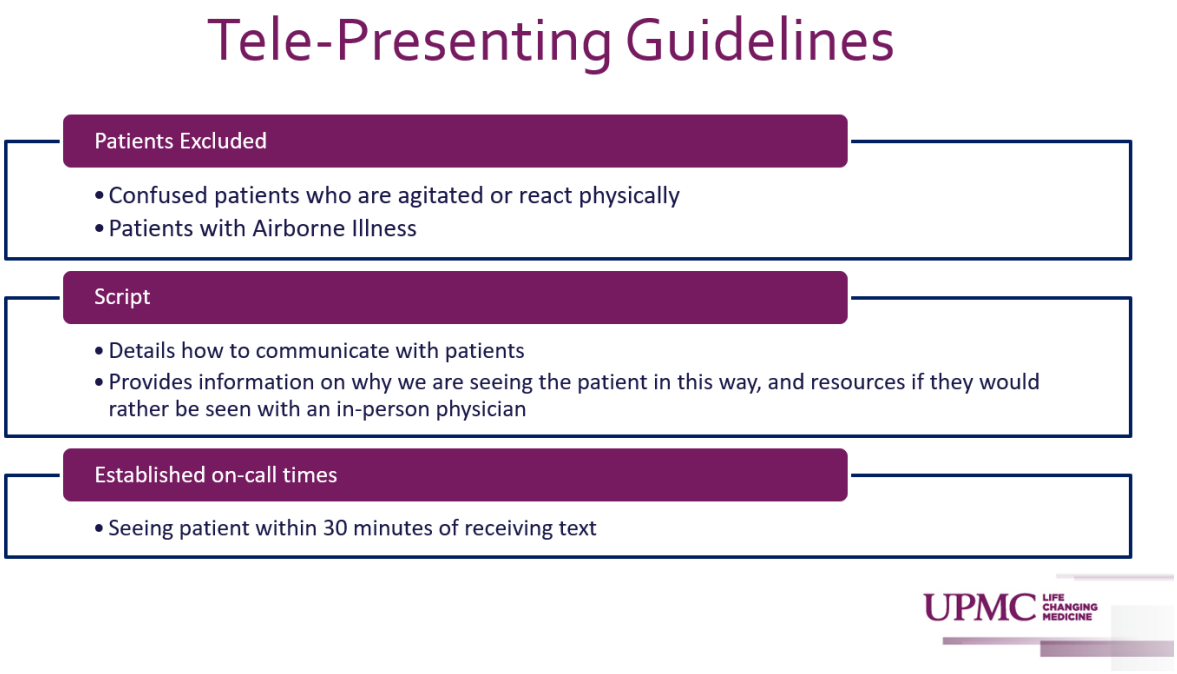



**Figure 10: Tele-Presenting Guidelines**

## 2.2 Tables

**Table 1: Accessible Care Center Staffing Model**

| Patient Panel | 400 | 600 | 800 | 1,000 | 1,200 | 1,400 | 1,600 |
|---|---|---|---|---|---|---|---|
| **Role** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** | **Year 7** |
| Physician (Split between PM&R and Gen Med) | 1 | 1.5 | 2 | 2 | 3 | 3 | 3.5 |
| APP | 2 | 3 | 4 | 5.5 | 6 | 7 | 8 |
| Clinical Social Worker (1 FTE) | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| Front Office Staff / Patient Service Rep | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Nurses + Nurse Line Support (Outside Clinic, Epic Care, Calls Questions) | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Medical Assistant | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Medical Director (0.2 for Gen Med, 0.05 for PM&R) | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Peer Navigator | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Office Manager (or Nurse Manager) | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nurse Coordinator | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Physical Therapist | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Occupational Therapist | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Behavioral Health Therapist | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Psychiatrist- Remote Position | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 |
| Health Plan RN Clinic Manager (Hybrid position provided by HP) | 1 | 2 | 2 | 2 | 3 | 3 | 3 |
| LPN (1 FTE) | 2 | 3 | 3 | 4 | 4 | 5 | 5 |
| Administrative Assistant | 2 | 2 | 2 | 3 | 3 | 3 | 3 |

**Table 2: Tele-Medicine On-Call Schedule**

**Schedule Key**

**Andrew**

**Lexi**

**Striped Red Cell Denotes: If Necessary**

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| 8:00am | | | | | |
| 9:00am | | | | | |
| 10:00am | | | | | |
| 11:00am | | | | | |
| 12:00pm | | | | | |
| 1:00pm | | | | | |
| 2:00pm | | | | | |
| 3:00pm | | | | | |
| 4:00pm | | | | | |
| 5:00pm | | | | | |
| 6:00pm | | | | | |
| 7:00pm | | | | | |
| 8:00pm | | | | | |

**Table 3: PERC Clinic Payor Mix**

| Payor | Members |
|---|---|
| ADVANTRA MC HMO/PPO | 3 |
| AETNA | 10 |
| AUTO | 20 |
| BEHAVIORAL HEALTH COUNTY | 2 |
| BLUE CROSS COMMERCIAL | 20 |
| CCBHO | 18 |
| CHAMPUS | 3 |
| CIGNA | 2 |
| COMMERCIAL | 34 |
| COMMUNITY BLUE | 7 |
| EPSDT GATEWAY | 5 |
| EPSDT UPMC FOR YOU | 2 |
| GATEWAY | 25 |
| GATEWAY MEDICARE | 50 |
| GENERAL ASSIST/MA | 3 |
| HEALTH AMERICA COMMERCIAL | 2 |
| HIGHMARK DIRECT BILL | 4 |
| HIGHMARK OON | 2 |
| MA PA TXC | 3 |
| MANAGED CARE MEDICAID | 13 |
| MEDICAID PA | 9 |
| MEDICARE | 32 |
| NONE | 3 |
| OUT OF STATE MA | 5 |
| PENDING AUTO | 6 |
| SECURITY BLUE | 3 |
| UNITED HEALTHCARE | 4 |
| UNITED HEALTHCARE MEDICAID | 2 |
| UNITED HEALTHCARE MEDICARE | 4 |
| UNITED MEDICARE | 2 |
| UPMC COMMERCIAL | 23 |
| UPMC EMPLOYEES | 2 |
| UPMC EXCHANGE | 8 |
| UPMC FOR LIFE MEDICARE | 18 |
| UPMC FOR YOU | 34 |
| VALUE OPTIONS MA MANAGED CARE | 10 |
| WESTERN BEHAVIORAL HEALTH | 5 |
| WORK COMP | 5 |
| **Total Members** | **403** |

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