Improving Ambulatory Patient Experience at UPMC Children's Hospital of Pittsburgh: More Than "Just the Right Thing"

by

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Abstract

Since the turn of the century, interest has been growing in understanding and improving the patient experience primarily in inpatient settings. With over a decade of results as a knowledge base, the industry is ready to increase it focus in ambulatory settings. Using UPMC Children's Hospital of Pittsburgh (CHP) as a case study, this essay illustrates how patient experience can be improved in this setting. CHP's efforts to improve patient experience have show a correlation with improved inpatient patient experience scores and reduced inpatient readmissions.

Improving ambulatory patient experience is of public health importance, because it leads to increased quality and access for patients. Further, it connects the needs of the public to healthcare providers in a way that is not always seen due to the unique aspects of the industry. This has positive outcomes such as improving patient adherence to medical advice and reduced medical malpractice risks. Further, by understanding how to improve patient experience, organizations can strategically utilize patient experience data to improve.

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1.0 Introduction

1.1 Rationale for Targeted Issue

In a free market, such as the United States, businesses thrive when they provide goods and services which people like and are willing to pay for. In healthcare, there are often barriers which get in the way of this supply and demand relationship. With the main funding source of healthcare being a third-party payer, patients are often not aware of the costs associated with the treatment they are receiving (Garber). If they are aware, it is often after the fact, because their insurance plan did not cover part of the bill and they are obligated to cover the remaining expenses. Healthcare further differentiates itself from other industries by having a lack of available choices. For example, the annual accrual of time waiting to see a primary care doctor by patients in the United States amounts to 1,336 years (Rahman). Even with all this wasted time, and the time not included in the study such as specialty visits, patients still go to these doctors because a lack of alternative options. In Pittsburgh, when a child needs medical attention, there are little to no alternatives available that are not affiliated with CHP. With the closest major competitors being in Ohio and West Virginia, there is little natural means of competition. With these unique circumstances, there is a great potential for healthcare consumers and suppliers to have misaligned interests.

Patient Experience Surveys bridge the knowledge gap between healthcare providers and healthcare consumers. Starting in inpatient settings well over a decade ago, these efforts have already been working. With increasing demand for outpatient services due to being in a low-cost setting, more patient visits are now happening in ambulatory settings. This accentuates the need to expand the scope of patient experience efforts to include the services rendered in outpatient clinics.

2.0 Literature Review

2.1 Inpatient Background

The institute of Medicine identified patient-centered care as one of the six aims for improvement which are designed to address key dimensions of healthcare that are far below what they need to be (Institute of Medicine). Since that publication, more and more work has been done as an effort to improve this aim. Patient experience surveys have been created to capture the needs of patients in order to make healthcare more patient centered (Tuot). Patient experience incorporates feedback through surveys, tailoring of services to individual patients, meeting and exceeding expectations of patients and family members, practicing patient and family centered care, and reflects occurrences and events that happen across the continuum of care (Wolf). By focusing on improving patient experience, studies have been shown to see significantly higher positive outcomes in patients (Tuot).

Patient experience is much more than patient satisfaction. On a five-point scale, scores falling between three and five represent satisfied customers, but those that are satisfied are not necessarily going to come back or give friends and family their recommendation (Lee 47). With this in mind, organizations have shifted their focus to be on the top responses to questions, because they want to cultivate more loyalty amongst their patient base. Referring to an article he once read, Fred Lee, wrote that "there is a six-fold increase in customer loyalty between fours and fives" (Lee 49-50). To put it another way, customers are six times more loyal if they indicate a five out of five than those that indicate a four out of five. This is further reason for organizations to focus in on top box scores, as they are generally noted.

Since 2007, the Centers for Medicare & Medicaid Services (CMS) began implementation of a national inpatient survey known as the Hospital Consumer Assessment of Healthcare Providers and Systems Survey ("HCAHPS: Patients' Perspective…"). This helped create a significant pool of comparison for organizations. Further, it helps hospitals to focus on cultivating patient loyalty. Starting in 2012, CMS began basing part of their reimbursements upon the results of this survey (Rau). Largely as a result of these incentives, there are currently many programs and investments in place that focus on improving the patient experience within health systems across the country.

2.2 Outpatient Clinic Impacts

Very little research has been conducted which illustrates the need to invest in improving the experience in ambulatory settings. Without the incentives from CMS which are present for inpatient services, organizations which invest in improving outpatient patient experience mostly do so to differentiate themselves from their competitors or just because they believe that it is the right thing to do. One study, which took place in an outpatient ophthalmology clinic, begins to take a look at the economic incentives of various stakeholders involved to improve patient experiences (Dai). In a study with over 130 hours of patient interviews, they found that communication and the value of the appointment help patients to overlook any wait time (Chu et al.). With this in mind, understanding that the process may not easily be fixed, increasing communication helps patients to have an increased satisfaction with their experience. Another study, shows a correlation between outpatient and inpatient scores, which concludes by stating that "the patient perception established in ambulatory and clinic settings could translate to patient's

perception of their hospital experience and subsequent satisfaction scores, and thereby represent an important focus of performance improvement initiatives" (Meyrat). These points emphasize part of the benefits that abound when investing in ambulatory patient experience, but there are still many more levels to dig into in order fully understanding the benefits of improving ambulatory patient experience.

2.3 Outpatient Provider Impact

Providers often push back against patient experience feedback, because it can affect their pay or because they feel it doesn't reflect the care they truly provided. Oftentimes organizations set up pay incentives for providers based upon Relative Value Unit (RVU) targets or other metrics which fail to motivate providers to focus on the experience of the patient. By understanding how patient experience initiatives impact physicians and patients, it is evident that it is beneficial to everyone that is involved.

Patients want their voice to be heard and respected. A study in an outpatient pediatric cardiology practice concluded that the explanations providers give to patients ranks amongst the top 3 strongly correlated areas to impact the overall patient experience (Allam). Essentially, while quality and safety are important aspects of patient care, effective communication between the patient and provider cultivates the positive experience that they are hoping to receive. Patients' experiences communicating with their provider further correlates strongly with adherence to medical advice and treatment plans (DiMatteo). Providers should endeavor to communicate effectively in order to increase the ability and likelihood of patients to follow through with the instructions given to them which will help them work through their pains and sicknesses.

Lower medical malpractice risk is also associated with good patient experience, with a 21.7% increase in likelihood of being named in a malpractice suit associated with dropping from a five out of five to a four out of five (Levinson). Put another way, by focusing on improving patient experience, providers can protect themselves against a large number of potential lawsuits. This means less money spent on malpractice insurance premiums, less time spent discussing pending lawsuits, less time away from the office, and an increased ability to focus on the patients. Endeavors to improve patient experience are also correlated with reductions in employee turnover (Rave). By focusing on improving the patient experience, physicians are able to become more engaged along with their staff, creating a wonderful place to work.

Patient experience can also back up the voice of the physician when they are speaking with administration or simply thinking through business aspects of the clinic. Patient experience measures can help identify issues with system problems, "…such as delays in returning test results" ("Section 2: Why Improve…"). By monitoring patient experience, it can become evident when systems break down. This in turn helps identify issues and resolve them quickly for the patient and the provider's benefit.

While it may seem like one more thing for providers to worry about, focusing on patient experience can be done in simple ways to accommodate a busy schedule. Administrators can dissect feedback and display it to providers in visual summaries along with key takeaways within regular timeframes. Making this a part of a health systems culture will allow for it to become an enjoyable endeavor for those involved. By helping physicians understand what their patients want through patient experience work, all of these benefits can be enjoyed, making better outcomes for providers and patients.

2.4 Perceived Limitations of data

There is often pushback to patient experience initiatives due to a lack of trust in the feedback which is gathered through these surveys of patients. There is research which shows patients respond differently based upon specialty or physical location (Agarwal). When looking at patient experience data, clinics are often compared to other clinics which may differ in many ways. For instance, a pediatric cardiologist could be compared to a geriatrician in a pool of data. Further, a rural doctor in a small practice can be compared to a doctor working in a city within a massive health system. This implies that the data collected from patients does not perfectly illustrate the quality-of-care provider at clinics. Another study lists nonresponse bias, recall bias, participation bias, survivorship, the wording of survey questions, and a lack of direct patient observations as limitations to patient experience data (El Turabi). While these may be concerning limitations to patient experience data, there are ways of working past these to find value.

3.0 UPMC Children's (CHP)

3.1 Organizational Overview

University of Pittsburgh Medical Center (UPMC) is a "$24 billion world-renowned health care provider and insurer based in Pittsburgh, Pa" (UPMC Facts & Stats: Health Care Provider & Insurer-Pittsburgh, PA.."). With the mission to "provide outstanding patient care" and "shape tomorrows health system", UPMC is a leader in innovation, research, and education ("Mission, Vision, and Values"). With partnerships and efforts throughout the globe, UPMC is working to improve healthcare throughout the world.

UPMC is siloed into 4 main categories which include UPMC International, UPMC Enterprises, UPMC Insurance Services Division, and the Health Services Division (HSD). The HSD is comprised of 40+ hospitals across 3 states, employs 4,900+ physicians, runs 800+ physician offices and outpatient sites, and has a variety of long-term care options ("UPMC Facts & Stats: Health Care Provider & Insurer-Pittsburgh, PA.."). Within the HSD, the Wolff Center at UPMC is the "voice of quality patient care and improvement at UPMC" ("About Us: UPMC Quality, Safety, and Innovation."). Put simply, this centralized resource works with leadership, hospitals, physicians, departments and insurance colleagues to improve the way health care is delivered and allow all of these different groups to be able to learn best practices from one another ("About Us: UPMC Quality, Safety, and Innovation."). The UPMC health plan works closely with the HSD to do everything it can to help improve the health of the population UPMC serves. With this in mind, the health plan often funds projects which happen in hospitals and provider offices that, while focused on improving health outcomes in UPMC Health Plan enrollees, are generally

available to benefit any person that walks into a UPMC facility. This partnership is one of many examples that set UPMC apart as a unique and creative leader in healthcare.

As a part of the HSD, UPMC Children's Hospital of Pittsburgh (CHP) stands out as a leader in many of the strategic efforts UPMC undergoes. Founded in 1887 as the Pittsburgh Children's Hospital, CHP became a part of UPMC in 2001 (Fábregas). As such, the values of CHP align with those of UPMC as a whole, with the added focus of being a "world leader in children's health" ("Vision, Mission, & Values: Children's Hospital Pittsburgh"). Furthermore, CHP has 12 guiding principals, which include seeing the world through the eyes of a child ("Vision, Mission, & Values: Children's Hospital Pittsburgh"). It is a 313-bed hospital with a 10-acre campus including a research center, administrative office building, faculty pavilion, and more located in the Lawrenceville neighborhood of Pittsburgh ("Our Campus: UPMC Children's Hospital of Pittsburgh"). Services rendered on this campus and the multiple satellite locations include acute, emergency, rehabilitation, and critical care.

Though a majority of visits are from western Pennsylvania, CHP provides ambulatory services for patients from all across the world. In Calendar Year 2021, CHP provided care for over 1.4 million outpatient visits ("About UPMC Children's Hospital of Pittsburgh"). There are more than 28 subspecialty groups within CHP that make up these ambulatory services. These subspecialty groups are referred to as divisions and vary from each other in services provided, volume of patients seen, and medical professionals involved. For the most part, surgical subspecialty divisions fall under the leadership of their adult counterparts and report to CHP in a matrixed structure. For example, the division of Pediatric Orthopaedics rolls up to the leadership for all of orthopaedics. The remainder of divisions roll up through the Department of Pediatrics.

3.2 Looking Back: January 2019 – June 2021

Since its humble beginnings, “the doors of [CHP] have been opened to all children in need of medical and surgical care regardless of race, creed or the ability of their parents to pay the cost” (“1880s History: Children's Hospital Pittsburgh.”). While the technology, hospital campus, providers, and countless other aspects have changed, this patient centered focus has remained constant.

3.2.1 Structure and Activities

Beginning in 2019, ambulatory patient experience at CHP became a primary responsibility of a senior director. At this time, patients were being surveyed with the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey as delivered by Press Ganey, which is an outside organization focused on improving the patient experience. For outpatient services, the CG-CAHPS survey focused on 6 domains. The focus of these surveys was obtaining high top box scores, which is the percentage of patients which indicate the highest level of satisfaction on a question, as well as percentile ranks, which is how CHP’s scores add up compared to other Press Ganey participants. These surveys were set up through the Wolff Center, which is the main contact with Press Ganey for UPMC. When setting up where and when the surveys are sent to patients, the Wolff Center established the duplication exclusion rule. This rule breaks up all patient experience surveys UPMC sends out into 7 groups. Each group can send a unique patient one survey within a 90-day period. For example, if a patient goes to the emergency department, their annual physical, and sees a cardiologist on an outpatient basis all in within 90 days, they would only receive two surveys. One would be for the emergency department, and the

other would be for the first of the two outpatient appointments. This is designed to reduce survey fatigue.

The survey information is automatically uploaded to Press Ganey's InfoEdge webpage. The Wolff Center provides two major services for the HSD with this information. The first is the distribution of a Provider Scorecard. Every month, providers are emailed a report which includes patient experience scores and patient comments related to the provider. The second service builds upon the first by publishing these scores online for patients to be able to view. Providers at CHP are invested in their patients' perception of their care. On the organization website, the patient feedback provided is displayed where people are able to schedule appointments as shown in Figure 1.

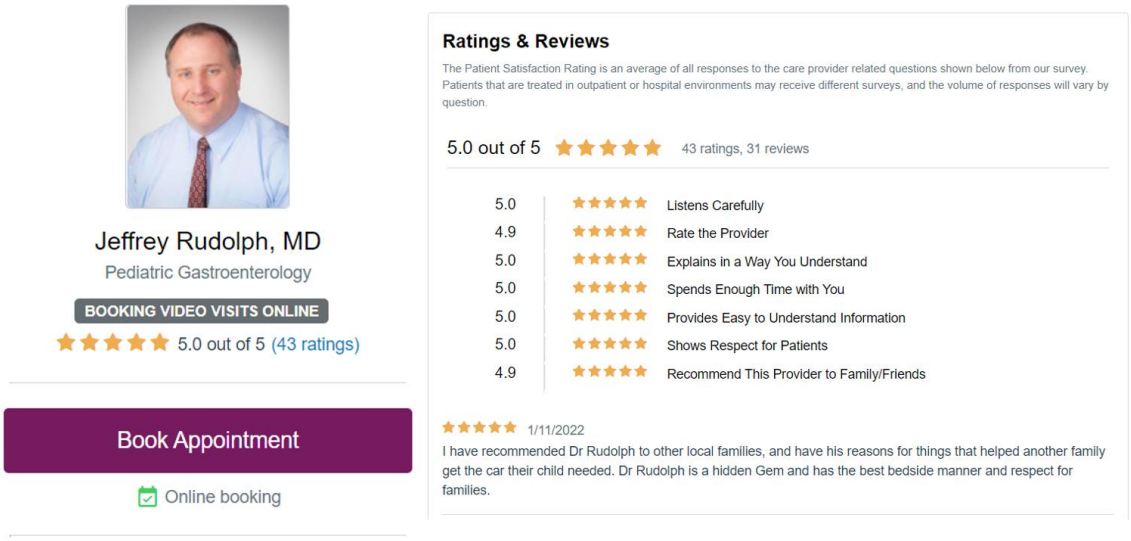

Figure 1 Published Provider Ratings

Starting with an administrative resident and the senior director in charge of ambulatory patient experience, in early 2019 the first step undertaken was to create reports which would be distributed to mangers and clinical directors on a regular basis. A dashboard was created using Microsoft Excel which included year to date Top Box scores and percentiles for each division on

the domains from the data collected through Press Ganey as seen in figure 2. This report was distributed on a monthly basis and allowed staff to track progress. A second report was created using Microsoft Excel to distribute patient comments. This report shared the comments collected as part of the patient surveys and was distributed twice per month.

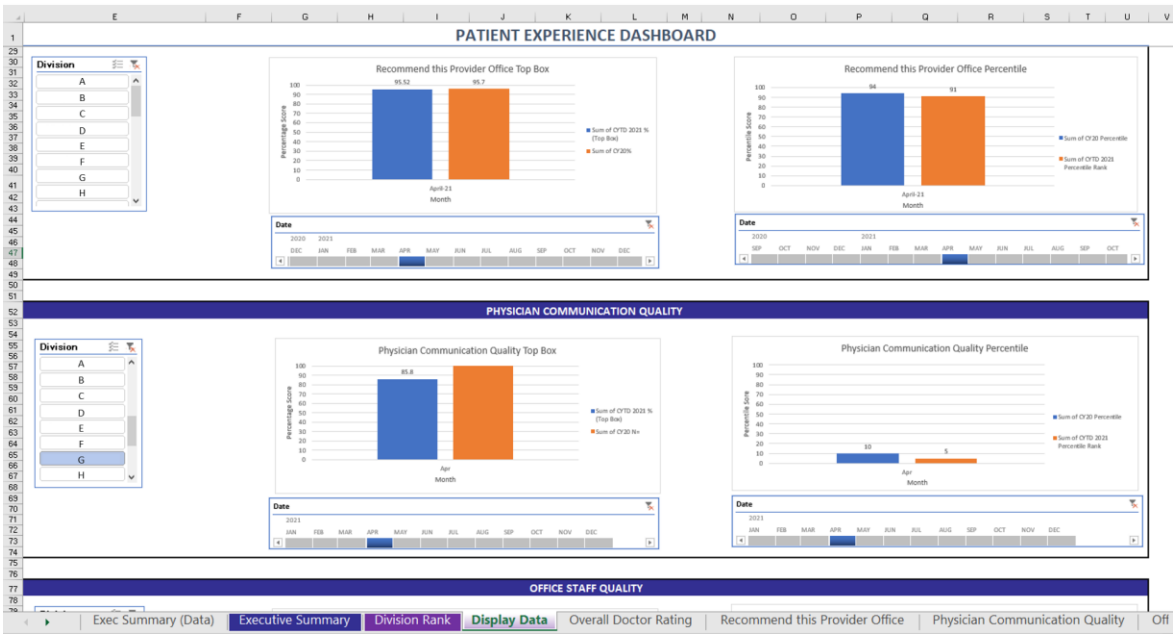

Figure 2 PG Dashboard – Division Graphical Display

In order to get leaders familiar with the reports, meetings were held at lunch multiple times which trained managers on the functionality of the reports and how they could use the information to improve the patient experience. Monthly meetings began to take place where each division reported on their efforts to improve patient experience. These meetings helped to increase accountability, focus, and generated new ideas. Continuing into 2020, this structure remained the same to continue the process of distributing reports and allowing managers the freedom to lead their division's efforts in improving patient experience, while gathering monthly to learn from each other. Starting in early 2021, the monthly report out became a quarterly report out to allow for more time to see the results of actions taken between meetings. In the summer of 2021, Press Ganey retired the InfoEdge webpage and replaced it with a more user-friendly interface called

Press Ganey Online. This interface made creating reports easier and allowed CHP to encourage managers to get more detailed data directly instead of relying solely upon the PG Dashboard. The final change was beginning to send best practices documents along with comment reports to help CHP leaders understand how to improve scores in each question of the survey.

When undergoing these efforts to improve patient experience, it is also important to understand how these efforts can be funded and financially justified. Positive outcomes can be related to patient retention and growth, but marketing and other efforts help with that as well, making it increasingly difficult to single out improvements based upon patient experience efforts. At CHP, financial justification for undergoing patient experience improvement projects does not come directly from patient experience data, instead it comes from the other aspects of an improvement project. Generally speaking, the patient experience is either improved by increasing employee productivity, eliminating waste, or improving positive behaviors in the workplace. Aside from the latter, these are easily quantifiable and can be used to identify financial justification for projects, which will be illustrated in the following example.

Over half of negative comments received from patients is related to their experience scheduling appointments. Currently, CHP uses a corporate wide UPMC Call Center to schedule patients. Call center agents work using a decision tree, which scripts what they say to patients and walks them through the process of scheduling a patient. There are some paths in decision trees that lead to the agent being unable to schedule a patient. In this case, the patient will be transferred or given another number which they need to call and it is recorded as a Customer Relationship Management (CRM). This is a major patient dissatisfier as well as a waste of time for employees.

Figure 3 below shows the performance of the pediatric divisions within the call center over the last 5 years.

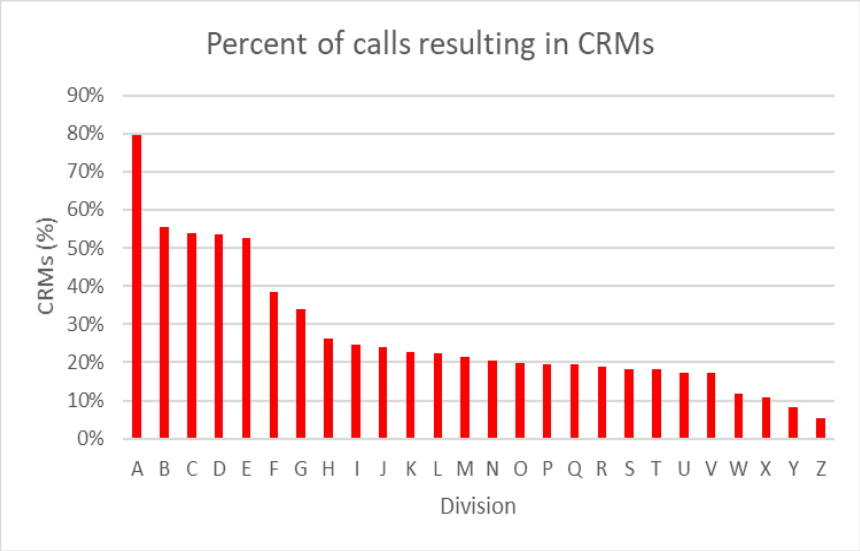

Figure 3 CRM Data

Overall, 23% of all call going to the call center resulting in a CRM. Taking in to consideration the average call time, number of calls per year, average call center agent salary, and the CRM volume, the waste of the current call center structure is estimated to be $270,000 - $300,000. Going forward, the structure of patient scheduling at CHP is drastically changing. CHP is pulling out of the centralized call center and creating its own scheduling structure. This will allow for cross training of schedulers, and for them to become more integrated into the divisions they are assigned to schedule. While the potential savings are significant, it is important to note that there is not currently a plan to reduce staffing and improve CHP's bottom line. Instead, it will free up employees to focus on other tasks and initiatives as assigned. The investment involved includes the hiring of a new call center manager, the time for which the process improvement team worked on setting this up, and some supplies such as specialized phone lines (The agents were assigned unutilized cubicles at CHP). By undergoing these changes, CHP is working to eliminate

CRMs and transform the patient experience by accomplishing first contact resolution (zero CRMs).

Even with the ability to tie patient experience data to quantifiable improvement metrics for the organization, there are times when projects may be undergone that may not have an attractive Return on Investment (ROI). These projects help CHP differentiate itself from other providers and improve the culture at CHP as well. While efforts that are less quantifiable may be seen as just doing the right thing, the impact goes much further.

3.2.2 Outcomes

Utilizing the structure CHP has put into place in order to monitor and improve patient experience, there has been a significant increase in the patient experience. As seen in Figure 4, there were steady increases for patients reporting that they would recommend the provider office in the CG-CAHPS survey. Using 2018 as a baseline, 2019 and 2020 continued to build upon each other to improve patients' perception of their experience at CHP.

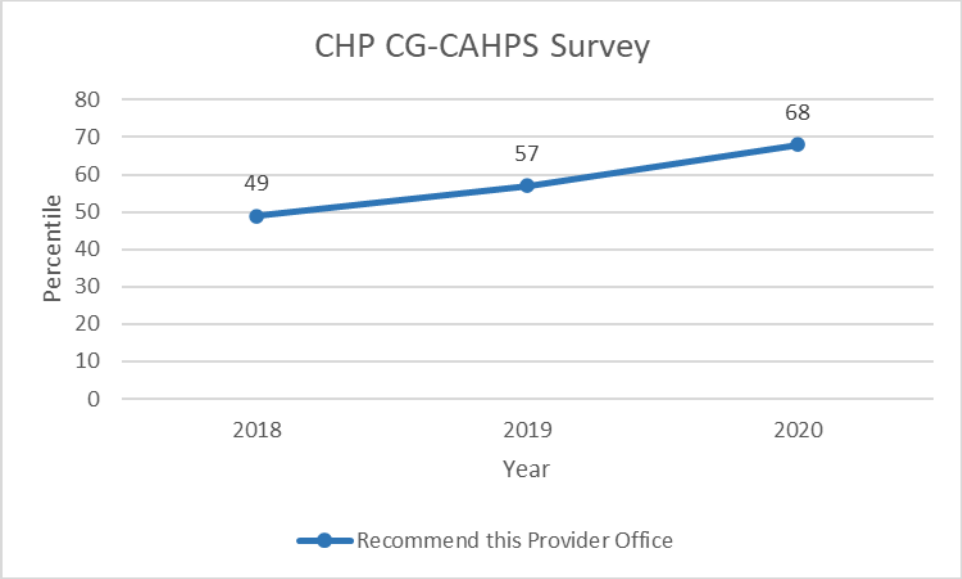

Figure 4 January 2018 – December 2020 Patient Experience Outcomes

While there has been variance in the data on a more granular level, each year showed a significant improvement compared to the previous year. By keeping staff focused on the feedback patients give, and organizing projects to improve specific areas noted as negative by patients, CHP was able to improve the patient perception of their experience within these ambulatory clinics.

Taking these outpatient scores and comparing it to the inpatient survey category "Rate Hospital", there is a strong positive correlation, with an R^2 value of 0.87. This correlation could be in part due to the same providers staffing outpatient clinics also carry out work on the inpatient side of the hospital on a regular basis. Further, the patients which are seen on an inpatient basis are often seen in follow up visits in outpatient clinics. From a clinical outcome perspective, inpatient readmission rates are negatively correlated with outpatient patient experience scores, which shows further evidence that the work done in clinical settings can have a widespread impact on a patient's healthcare journey. While efforts to improve inpatient and outpatient experience are not aligned at CHP, the overlap of patients and providers may play a large part in the correlation of scores.

Since efforts to improve patient experience involve leaders from across the organization, they can have far reaching impacts. CHP leads UPMC in many aspects such as by having a low turnover rate and having an excellent nursing staff which has received magnet status twice in a row with a third application in processing. Many of the successes of CHP would be worth further study to identify other aspects that correlate with these efforts. Further research to identify a causal relationship would be difficult, but it would provide a valuable understanding of the true impact of investing in improving patient experience.

3.3 The Road Ahead: July 2021 - Onward

With 2.5 years of work on ambulatory patient experience underway since the restructuring in 2019, CHP has undergone several big changes to continue the momentum. Among the changes include a new survey, the formation of a patient experience committee, revamping the PG dashboard, and a change in ownership of ambulatory patient experience.

3.3.1 Structure and Activities

Beginning July of 2021, all UPMC outpatient clinics switched to a Targeted Medical Practice Survey created by Press Ganey. This new survey contains fewer questions, increased opportunity to leave comments, and a larger benchmarking population. These changes make it more conduce with surveying via text message and a higher response rate is anticipated. The survey also has features which make generating reports more meaningful. For example, there is a true

overall score, which combines response to all of the questions in order to give a true overall top box score and associated percentile.

Aligning with the timeline of the survey switch, CHP redesigned reports which were generated. The two reports which were used for the CG-CAHPS survey were outdated and they were used as inspiration for a new combined dashboard which was created using Microsoft Power BI. This organized the data in a more user-friendly manner and made it easier to update as well. Figure 5 shows the front page of this dashboard and how managers can see data from all categories of the survey, as well as an overall metric, on one screen. This can be viewed from the perspective of each division and has an overall CHP summary option as well. Each domain of the survey has a graph shown on the summary page, as well as a tab in the report that goes deeper into the details. The comments patients leave re built into these tabs and can be read while viewing the charted data all on one screen.

Figure 5 New PG Dashboard - Summary Page

At the same time, CHP created a more functional leadership structure which delegates specific portions of patient experience to key leaders. A committee was formed which allocates responsibility for different aspects of the survey among key leaders as illustrated in Figure 6. The operations domains (nurse/assistant, moving through your visit, and personal issues) is led by a nursing director. A director over surgical and clinical subspecialties leads the work in the care provider domain. Access is led by the director of process improvement. An administrative resident works in the capacity of a project manager to help each domain and to organize major meetings. Finally, an executive level administrator leads the committee.

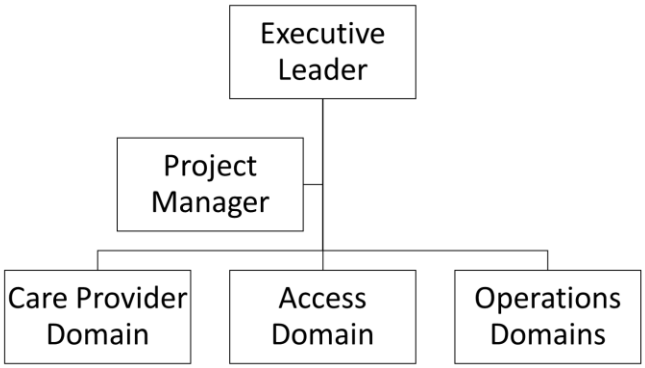

Figure 6 Patient Experience Committee

The head of the committee reports on these efforts regularly in executive management group meetings and in management forum meetings. This committee meets monthly to report on the efforts being undertaken in each domain and discuss ideas for further improving patient experience. The efforts undertaken in each division are led by that division's manager, along with oversight from their clinical staff leader. Each quarter, all of the division managers continue to get together to report and discuss these efforts in an effort to learn from one another and hold each other accountable.

By May of 2022, a full-time member of the process improvement team will be taking over the role which an administrative resident has been playing. While the structure is anticipated to remain the same, with this person taking on the capacity of a project manager for this endeavor, it is expected that there will be a greater capacity for building structured projects for improvement. This change is in effort to create longer term stability in who is leading these efforts, showing further investment by taking it away from a learning position and allocating it to a full-time employee, and will be ideal for continuing to build upon the work which has already been done.

3.3.2 Outcomes

With the change to the targeted medical practice survey starting in July of 2022, CHP started in a very low percentile. With 7 months of data to draw upon, CHP has shown significant improvement. The results of these first 7 months on the new survey are illustrated in Figure 7 below:

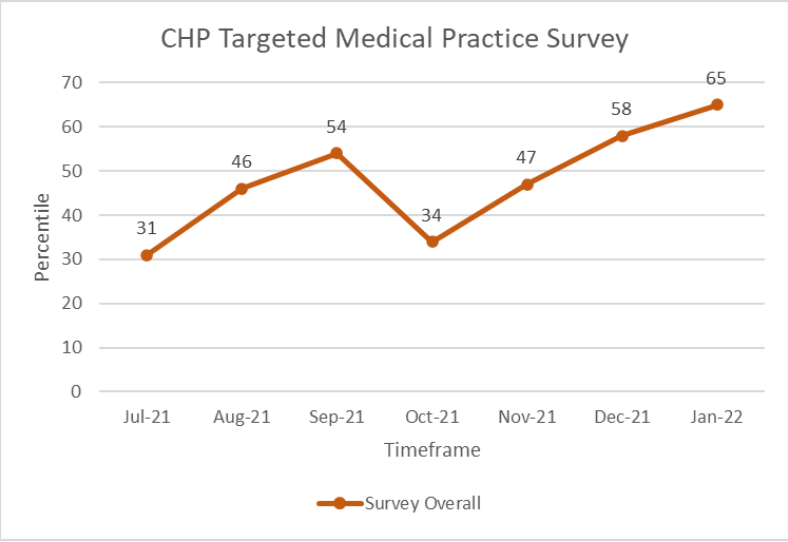

Figure 7 July 2021 – January 2022 Overall Patient Experience Outcomes

It is promising to see the two upward slopes, as well as the major improvement from July to January. Given that, it is concerning to see the dip that occurred in October. Anecdotal evidence points to a significant number of providers and staff taking time off in this month which could be related to this decrease in patient experience. The quick recovery may also be associated with the efforts to celebrate the many holidays in November, December, and January. Going forward, it will be important to watch these patterns and dig into the data on a more granular data to see how improvement efforts are affecting patient perception of care. History has shown that CHP has the fundamentals understood to improve patient experience and this will be important to continue to build upon.

As more data under this new survey is gathered it will be valuable to compare the results to other aspects of care at CHP. Under the previous patient experience survey, strong correlations were identified. Taking the new survey data and comparing it to current outcomes was not undertaken as an aspect of this essay, but would be beneficial to research in the future.

4.0 Conclusion and Opportunities for Future Research

4.1 Conclusion

With the understanding that improving the patient experience is complicated and often hard to manage, it is vital to invest in both the inpatient and ambulatory settings. Resources and findings from the structure organizations have in place for improving their HCAHPS scores can be shared with outpatient focused efforts in some cases to alleviate the costs and complexity involved in building up outpatient efforts. It is vital to look at the entire continuum of care, as a small aspect of care can shape the patient's perspective for the remainder of their interactions with a health system (Bleustein).

The first step in taking on this endeavor is to collect and organize patient feedback, or create patient experience tools. The success of these patient experience tools relates to the extent to which they reflect what is most important to patients (Lavela). In accordance with this understanding, it is important to have meaningful questions in place which represent the patient and their voices. Just as important as it is to gather quality data, organizations need to utilize the data in a meaningful way (Ziabakhsh). Using this data to support patient improvement initiatives makes the data meaningful and ensures that the voice of the patient is heard (Patwardhan). To this point, some researchers argue that it is unethical to gather patient experience data and do little to nothing with it (Coulter).

While it is important to structure the work behind patient experience, it is necessary to find a balance between standardizing and allowing individual leaders to have the freedom to work within their sphere of influence (Neeman). Giving leaders the tools they need to dissect the data

that come in through surveys and so forth will help them creatively apply true principles to their unique work environments. Furthermore, maintaining high level accountability ensures that the work will continue and that these leaders will be able to learn from one another. This will create a culture of continual improvement that is centered around patients. By looking to world renowned hospitals such as CHP, organizations can become inspired to take on individualized efforts to improve the patient experience in their own walls.

4.2 Considerations for Further Research

Patient experience is extremely complicated and as such there is a plethora of opportunities to further research and understand the topic. It may prove fruitful to research the effectiveness of different aspects of surveys in order to best understand feedback given from patients. While top box results paint the picture of patient loyalty, the voice of those that don't respond the highest may be lost. Another topic for further study is how to increase the amount of feedback gained from patients. This may involve increasing survey response or even creating new methods for feedback such as calling and gaining verbal responses from patients. Beyond garnering feedback, research could be undergone to understand the best questions to ask patients and potential methods to weigh questions more than others to create an accurate voice for the patients. Finally, the paper above focuses on the impact of focusing on patient experience for healthcare providers as well as health systems. Further research could be conducted which illustrates the viewpoint of society, administrators, nurses, call center agents, schedulers, and the numerous other stakeholders involved which can impact patient experience or feel its effects.

As a further follow up to this paper, it would be beneficial to research the specific structure that could be put in place to build a patient centered culture and invest in improving ambulatory patient experience. This could look like a matrixed structure which leverages inpatient resources. It could also become a topic which is focused upon by a process improvement team. Whatever the logistics, finding the ideal structure for various ambulatory organizations will be the next important step.

Appendix A List of Acronyms

CG-CAHPS – Clinician and Group Consumer Assessment of Healthcare Providers and Systems

CHP – UPMC Children's Hospital of Pittsburgh

CMS – Centers for Medicare and Medicaid Services

CRM – Customer Relationship Management

HCAHPS – Hospital Consumer Assessment of Healthcare Providers and Systems Survey

HSD – Health Services Division of UPMC

ROI – Return on Investment

RVU – Relative Value Unit

UPMC – University of Pittsburgh Medical Center

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