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New Outpatient Experience Survey Design: A Quality Improvement Case Study

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Capstone Report

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Project Description

The purpose of this capstone project is to evaluate the implementation process for a new survey methodology introduced by Maine Medical Partners (MMP), by following the Plan-Do-Study-Act (PDSA) quality improvement cycle framework. This new survey has been implemented to collect data on patients' experiences in the MMP outpatient facilities, and is offered to the patients via iPad at check-out after their appointment. Through observation at MMP practices and MMP staff interviews, strengths and weaknesses of the implementation process have been identified. Evidence-based solutions pertaining to the identified weaknesses have been selected through a literature review and are incorporated in recommendations for MMP to improve the efficiency of the survey process and increase the usefulness of collected data for quality improvement within the organization.

Background and Rationale

Maine Medical Partners (MMP) is a healthcare organization comprised of 51 primary care and specialty care practices that serve the Greater Portland community. MMP is a department of Maine Medical Center (MMC), a hospital in Portland, Maine, and both are part of the larger accountable care organization, MaineHealth.

MaineHealth, MMC, and MMP take part in quality improvement efforts that are driven by the desire to improve care and health outcomes for patients, while reducing medical costs. These efforts are also incentivized by value-based reimbursement payments for accountable care organizations, governed by the Centers for Medicare and Medicaid Services' (CMS). One of the value-based quality metrics reimbursed by CMS is *patient experience of care* (CMS, 2016). To measure patient experience of care at primary care and specialty care practices, MMP uses a standardized survey called the Clinician and Groups Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS), developed by the Agency for Healthcare Research and Quality (AHRQ) (C. Rideout, personal communication, November 22, 2016).

The core CG-CAHPS survey is 36 questions on 5 pages, and takes around 15 minutes to complete (AHRQ, 2016). The survey measures the patient's experience with health providers and other staff they interacted with during their visit and asks patients to rate their providers. Other information collected includes the patient's access to care, if they received needed care promptly, and if the provider communicated information and recommendations respectfully and

in an understandable way (AHRQ, 2016). Practices can also add optional supplemental survey sections to address quality improvement goals beyond the scope of the core survey. MMP includes the "Patient-Centered Medical Home" supplement which includes an additional 18 survey questions (A. Reed, personal communication, December 6, 2016).

Traditionally, MMP has mailed the CG-CAHPS survey to a random sample of the patient population. MMP is contracted to send the survey to at least 50 patients for each provider. Patients are eligible for the random sample if they have completed a visit with their provider within the survey year (A. Reed, personal communication, December 6, 2016). Response rates for this survey have historically been very low, making it difficult to accurately assess patient experience at MMP's primary care and specialty care practices. Along with response rates, data collection and analysis delays are a weakness to this method. When the survey is completed and mailed back to MMP by patients, data collection and analysis takes approximately three months before yielding useful information. This lag time makes it difficult to appropriately address negative experiences that patients have and to determine if recently implemented quality improvement changes have had an impact on patient experience of care (C. Rideout, personal communication, November 22, 2016).

To improve survey response rates and elicit more immediate feedback, MMP wanted to implement a new patient experience of care survey method. They wanted to have a survey that could provide instantaneous results, have customizable survey questions, and have the capability to be offered on a touch-screen device at the point-of-care (C. Rideout, personal communication, November 22, 2016). To create the desired survey, MMP contracted with Press Ganey, a survey company which develops surveys to measure patient experience with real-time feedback, completed on smartphones and tablets. Press Ganey provided a list of validated survey questions that aligned with MMP's quality improvement interests, to the MMP Service Excellence Committee. This committee narrowed down the list to 10 questions and presented those questions to MMP's Patient Advisory Committee, comprised of patient representatives from the MMP practices (C. Rideout, personal communication, November 22, 2016). The patient representatives voted on the top six questions that make up the survey, addressing customer service, appointment scheduling, patient-provider interactions, and overall visit experience (Appendix A).

This customized survey was implemented on February 6, 2017 and is currently used at all 51 of MMP's practices. It is offered to all patients when they checkout, immediately after their appointment. The survey is completed on iPads for instantaneous data collection and feedback, and provides every patient with an opportunity to share their care experience. With only six one-sentence questions, the hope is that response rates will be higher and data collected will be more representative of the patient population than the traditional mailed survey. The CG-CAHPS survey is still mailed to patients, but at a reduced rate because the new survey offsets the number required to be mail out (C. Rideout, personal communication, November 22, 2016).

Project Framework

The framework for this quality improvement case study is modeled after the Plan-Do-Study-Act (PDSA) cycle, a quality improvement framework commonly used in healthcare. It consists of four stages that closely resemble stages of the scientific method; formulate a hypothesis (Plan), collect data to test the hypothesis (Do), analyze and interpret results (Study), and make inferences about the hypothesis (Act) (Taylor, McNicholas, Nicolay, Darzi, Bell, & Reed, 2014). In the "Plan" stage, changes to improve the process being studied are identified and an implementation plan is developed. Within the "Do" stage, the developed plan is implemented and monitored. The "Study" stage consists of data analysis and reflecting on the findings from the "Do" stage, and the "Act" stage incorporates acting on the findings and possibly restarting the cycle for further process improvement (Naidoo & McSharry, 1999).

Following the PDSA cycle, this case study examined the implementation process for the new iPad survey. The "Plan" stage included determining what the process in question was, what data would be collected, and how the data would be collected. In the "Do" stage, unexpected observations and problems were documented through observations and interviews (Institute for Healthcare Improvement, 2016). Next, the data was analyzed and reflected upon during the "Study" stage. Then based on the findings of the literature review, recommendations for process changes are presented in this report to inform MMP as part of the "Act" stage (Guinane, Sikes, & Wilson, 1994).

Literature Review

Collecting accurate and representative data on patient experience of care through surveys is a difficult task due to a number of factors. The timing of when a survey is given is an important

influence to consider. Long delays between a patient having their appointment, and receiving their survey, can lead to recall bias. Patients may not remember specific details of a visit that happened a few weeks/months beforehand, especially if the patients surveyed already struggle with memory loss (Brook, Siewert, Weinstein, Ahmed, & Kruskal, 2016). If surveys are given to patients immediately after a visit, however, patients are much more likely to recall specifics of their visit experience with their providers. The downside to an immediate survey though, is if the survey is offered to patients immediately following an appointment and the patient is angry, received an unfortunate diagnosis, or was just given a large bill, emotion may influence the feedback provided in the survey (Brook et al., 2016). One study found that patients who had an appointment with a healthcare provider on their current medical symptoms were more likely to be unsatisfied with their experience if they were not given a diagnosis (Rosendal, Carlsen, & Rask, 2016). Of the patients who filled out the survey, 50% of the patients that were not given a diagnosis were dissatisfied with their provider's medical examination or explanation compared to 44% of the patients who were given a diagnosis for their symptoms. Symptom-only patients were also more likely to leave with unmet expectations (17%) compared to patients who received a diagnosis (13%) (Rosendal et al., 2016).

Surveying methodology also influences data collection and potentially introduces biases in the results. Paper surveys mailed to patients have been the traditional method used by MMP to survey patient experience of care. While easy to implement, mailed surveys generally have limited response rates, introduce potential biases, and take a long time to analyze data and produce results (Brook et al., 2016). Along with the recall bias introduced due to the delay between a patient's visit and the survey, responder bias may also be present with mailed surveys. Certain demographic groups of patients are more likely to respond to mailed surveys, such as older patients and patients who are invested in improving the healthcare system (Brook et al., 2016).

Point-of-care surveys are a more recent surveying method used by healthcare organizations to obtain patient experience of care feedback. Technology interfaces such as iPads, used for surveying purposes, have shown higher response rates than mailed surveys (Brook et al., 2016). One research study compared response rates of mailed and on-site surveys for emergency department patients and found that the on-site survey had a response rate of 53.0% compared to 23.9% for the mailed survey (Yarris, Duby, Frakes, Brooks, & Norton, 2014). Patients using the

on-site survey also rated their experiences significantly higher than the patients who completed the mailed survey, with 79.6% vs. 68.9% respectively (Yarris et al., 2014). Another study asked patients to fill out a 37 question CG-CAHPS survey on an iPad while still in the exam room, after their provider left. Out of 101 patients asked to fill out the survey, 100 completed the survey, and 82% of those patients completed it in less than eight minutes (Mark & O'Brien, 2015). This same practice mailed surveys identical to the one given on the iPad in the exam room to 8000 patients, but only had a response rate of 19.2% (Mark & O'Brien, 2015).

Surveys using technology like iPads also introduce response biases because certain populations of patients may feel more comfortable using touch-screens than others. In particular, patients who are over the age of 50, have a yearly income less than $50,000, and/or do not have a college degree, are significantly more likely to have a difficult time using touch-screen devices (Zarghom, Fonzo, & Leung, 2013). These socioeconomic factors also significantly influence the likelihood that these patients will use the technology again. One study asked patients if they wanted to fill out a pre-visit questionnaire before their appointment using a pen and paper, or an iPad and found most patients preferred using an iPad. However, patients over the age of 55 were more likely to prefer filling out the questionnaire with pen and paper, and took significantly longer than others if they chose to use the iPad (Howell, Hood, & Jayne, 2015).

Data collected for patient experience can also be influenced by the type of survey design is being used. Externally designed surveys like the CG-CAHPS from the AHRQ, are standardized and comprised of validated questions that appropriately elicit desired information from patients (Snyder, 2014). Standardized surveys are useful because healthcare organizations can use the data to benchmark their patients' experiences with their peers and other organizations using the same survey (Snyder, 2014). These externally designed surveys do not usually allow for customization though. Questions tend to focus on larger health system agenda issues, not on current goals or issues for practices or patients (Brook et al., 2016). Conversely, internally designed surveys can tailor the data collected to an organization's goals and meet the needs of patients. However, testing and validating survey questions can take a long time. Additionally, these surveys are unique to the organization offering it and, therefore, comparison with other organizations is not be possible (Brook et al., 2016).

Press Ganey, the company being used by MMP for the new survey, is an external survey designer with a list of standardized and validated questions. What makes Press Ganey unique

though, is they allow for customization of the survey. The length of the survey and the questions included, are up to the organization implementing the survey. In MMP's case, the hope is that with a short survey, the response rates will be high and the tailored questions will suit the current needs of the organization and patients (C. Rideout, personal communication, November 22, 2016).

Survey length can influence patient response rates. While lengthier surveys cover a greater number of topics on patient experience, reducing the number of questions can still be reliable and valid for data collection (Stucky, Hays, Edelen, Gurvey, & Brown, 2016). An analysis of a 31-question core CG-CAHPS survey found that the survey could be reduced to 23 questions and still be a valid and have minimal variation in the information collected compared to the normal length survey (Stucky et al., 2016). By shortening the survey this much the response burden can be reduced by 25%, making the survey more efficient (Stucky et al., 2016).

Project Objectives

1. To identify the benefits of using iPads in the outpatient facilities to survey patients on their care experience.
2. To identify the limitations of using iPads in the outpatient facilities to survey patients on their care experience.
3. To propose evidence-based solutions to stakeholders to alter the implementation process of the new surveying method early on to increase the survey's usefulness to the organization and quality improvement of care.

Data Collection and Analysis

At the start of this study, 10 of the 51 MMP practices were randomly selected to be visited for data collection, using Excel's RAND function. Of the practices selected, five were primary care practices and five were specialty care practices. Managers of these practices were emailed and asked for permission to visit and to coordinate a time for data collection. Eight of the ten practice managers responded and those eight practices were visited for data collection, 4-5 weeks after the new survey went "live." The total time spent collecting data at each practice was typically just over an hour.

Data collection consisted of observation at the check-out desks where the iPad survey was being offered to patients after their appointments, followed by an interview of one of the staff

members at the practice who regularly presents the survey to patients at check out. To standardize data collection, notes for both observations and interviews were taken using designed templates. The observation template (Appendix B) focused on identifying strengths and weaknesses in survey presentation, the survey taking environment, the surveys impact on workflow in the practice, and other general trends pertaining to the survey that were noticeable. The staff interview template (Appendix C) was designed to focus on training staff received about the presentation of the survey, the surveys impact on workflow, and other general trends that staff had observed since implementation of the survey in the practice.

Notes taken for each practice were then compiled into a master spreadsheet, broken down by each template topic, for analysis of strength and weakness trends in the data. Trends were determined based on the number of times they showed up within multiple practices. These trends were then prioritized so the strengths and weaknesses highlighted and recommendations constructed would have the greatest impact on future improvement.

A literature review was conducted to find studies and evidence-based practices pertaining to the most influential strengths and weaknesses identified. Recommendations for further improvement of MMP's new iPad survey process are based on literature and best practices that are the most feasible and simple for the organization to act on.

Roughly six weeks after implementation of the new Press Ganey iPad survey in MMP practices, response rates for both the Press Ganey and CG-CAHPS surveys were requested and received from the MMP Quality and Analytics team. Responses rates for the Press Ganey survey were represented for each MMP practice, calculated based on the total number of office visits since implementation of the survey, and the total number of surveys filled out. CG-CAHPS responses were split into adult or pediatric rates by quarter, then further broken down for each MMP practice and each provider in the practice. These response rates for the Press Ganey and CG-CAHPS surveys were compared to see how the new survey design compared to the previous method to collect information about patient experience of care.

Study Findings

Within the eight MMP practices visited, a total of 61 patients were observed checking out and being offered the Press Ganey iPad survey. Table 1 shows the breakdown of the responses to the survey among patients observed in this study.

Total # of Patients Observed	Patient Filled Out Survey	Patient Denied Survey	Patient Not Offered Survey
61	41	17	3

Table 1: Totals for observed patients' responses to survey offered at checkout.

The information portrayed in Table 1 is not representative of actual MMP practice response rates nor an accurate depiction of the proportion of patients offered the survey. It merely shows what was observed and what this study's findings are based on.

The observed process of the survey being offered started with patients coming up to the checkout desks. Staff would offer the survey to the patient and if the patient said yes, the staff member would set up the survey on the iPad. This consisted of them typing in a 6-digit passcode to unlock the iPad screen (which some staff expressed in interviews to be a nuisance), selecting the survey app, and then choosing the patient's provider from the survey's drop down list of providers. Once the provider was selected, staff placed the iPad on the desk counter to face the patient, and told patients to touch their answers on the screen. All staff observed were very polite when offering the survey.

From observation, in general, patients seemed receptive to the survey and did not mind taking it. Patients who seemed to know the staff members offering the survey well, almost always filled the survey out. Occasionally, patients who filled out the survey made comments like "*Well I understand surveys are just a part of life*," and "*I guess since it's only a few questions*." Even some of the patients who did not fill out the survey were interested in the survey but said they were in a rush or "*I'll be here again tomorrow and will fill it out then*."

Most of the survey-taking environments among the MMP practices were very similar. All areas where patients were offered and completed the surveys had adequate overhead lighting. During times when practices were observed, regardless of whether the checkout desk was near the waiting room or patient exam rooms, the noise level was very low. While each practice had different designs for the checkout desk and surrounding area, they were all designed to maximize patient privacy. This was accomplished in a variety of ways, such as using glass barriers to create a window for conversation between staff and patients, or having the checkout desk in an area where there is not heavy foot traffic. None of the practices' checkout areas had seating available for patients to sit down and fill out the survey. While some practices had patients checkout right next to the waiting room, patients were not allowed to take the iPad away from the desk and sit down while filling it out, due to the fear of having the iPads stolen.

One staff member interviewed, expressed that the final question on the survey (Appendix A), asking patients if they wanted to be contacted by the practice manager, had already been very useful. There had been a few instances when the practice manager was prompted to reach out and resolved problems the patients had in a timely manner. Another staff member interviewed though, said that the last survey question often confused patients. Patients did not understand why they were being asked to put their name and number on the survey, likely because they misread the question.

Survey Response Rates

Based on the survey response rates received from the MMP Quality and Analytics team, it is difficult to determine how the new Press Ganey point-of-care survey is doing compared to the CG-CAHPS mailed surveys. Currently there is no way to track exact survey response rates with the Press Ganey survey because not all patients are asked to take the survey yet the rates are based on the total number of patient visits at the practice and the number of survey responses received. New survey response rates for the practices range from just over 1% to 97%, with a large amount of variation in between. CG-CAHPS response rates vary too, but not nearly as much. However, when looking at the total number of surveys completed, during the six weeks that the new survey has been "live" MMP received over 6,200 responses. In comparison, for adult and pediatric CG-CAHPS combined for FY2016, MMP received about 10,000 completed surveys. So, it can be expected that in one year, MMP will receive more patient survey responses from the iPad survey than the mailed survey.

Strength and Weakness Trends

Through analysis of the data collected in this study, three major strengths and four major weaknesses associated with the implementation of the Press Ganey iPad survey at MMP practices have been identified. These trends are as follows:

Strengths

1. One of the benefits of this new survey, is that it is very quick for patients to complete. While only anecdotal, during the observation component of this study, patients completed all of the questions in one or two minutes. Since it is so brief, offering the survey to patients at checkout does not have a significant impact on the amount of time they spend

at the practice. Additionally, staff are not held up while a patient is taking the survey because of its brevity.

2. Through data collection, it was evident that the most effective time for patients to be offered the survey was at the beginning of the checkout process. Observations in this study revealed that patients were more apt to fill the survey because they would be completing it during a time when they would otherwise be waiting for staff to schedule new appointments, process payments, and/or print after-visit summaries. By the time staff have finished their checkout duties, patients had already completed the survey. This method makes the process more efficient, eliminating any extra time the survey would otherwise add to patients checking out.
3. When staff presented the survey to patients, there were a few phrases that appeared to encourage patient participation in the survey. The most effective ways the survey was presented were:
    a. *While I am working on this would you mind please taking a really quick survey about your care experience today?*
    b. *Would you be able to answer a few questions for us to help improve your care?*
    c. *Before you leave, can you fill out a few short questions for me?*

Weaknesses

1. One weakness that was noted during data collection, was the inconsistency of information provided to staff and practices about the survey. Some of the staff members, when asked about training and information provided to them prior to implementation, mentioned that they did not receive much preparation. They were told there was a new survey on an iPad that should be offered to all patients after an office visit. These staff however, were unsure of the reason for the survey, how long they needed to offer it, and how to ask patients to fill it out. Meanwhile, staff members interviewed at other practices, shared that they were given plenty of information. They were told what the survey was about, some were given a flow chart outlining the process of asking patients and how to present the survey, and some were given a "Frequently Asked Questions" sheet with the corresponding answers. Based on the interviews with staff, it seems some practices are at a disadvantage when it comes to offering the survey to patients and therefore may be

receiving less feedback on how to improve patient care. This idea is further reinforced anecdotally in data collection during observation at practices; practices without adequate information and training on the survey had fewer patients filling out the survey.

2. A potential weakness of this new iPad survey noted during observation as well as by staff during interviews, is the cleaning of the iPads being used. During observation, iPads seemed to be cleaned randomly and usually just during down times when there were no patients. The process took a few minutes and during busy times, there is a concern that it is not getting done often enough. When interviewed, staff said they found the cleaning process to be a hassle and interrupted their workflow. They were not sure how often the cleaning needed to be done and said they only thought about it when not busy or after a visibly ill patient had just used it. If presumably all patients are touching the iPads after their appointments to take the survey, this increases the risk of the spreading infectious diseases.
3. While almost all patients who checked out during observation were offered the survey, multiple staff mentioned during interviews that there were certain instances when they would not offer the survey to a patient. Common patient groups staff said they did not offer the survey to were the elderly, visibly emotional or ill patients, patients in a rush, and patients who are with screaming or emotional children. According to staff interviewed who commonly omit asking these patients to take the survey, this is based on their own observation when offering the survey. Observed by the staff, these patient groups frequently denied taking the survey and became annoyed when asked to take it. Additionally, elderly patients often did not know how to use the iPad and staff occasionally had to fill the survey out for them, not to mention the few instances when patients tried to fill out the survey by writing on the iPad with a pen. So, from these observations, because of fear of annoying these patients and assuming they will say “No” anyway, the survey is typically not offered to them. While it is understandable that there will be patients who do not fill out the survey when asked, leaving out certain patient populations leads to selection bias and survey responses will not accurately reflect their experiences of care.

4. When presenting the survey to patients, there were a few phrases that commonly did not work well and patients frequently opted out of taking the survey. The least effective ways the survey was presented were:
    a. *Any interest in taking a survey today?*
    b. *How would you like to take a survey today? – You don't have to.*

Recommendations

Looking forward, the following recommendations may help to address the weaknesses identified and improve the survey's design and utilization in MMP practices. These recommendations are based on reviewed literature and evidence-based practices.

1. It is important that the implementation process for this new survey is uniform throughout all of MMP's practices. To make sure staff sufficiently understand the project and the value the survey provides, the flowchart and frequently asked question materials and other information pertaining to the survey should be disseminated to all practices. Information shared should include how to effectively present the survey to patients so that practices will be able to elicit more feedback to improve patient care. There is limited literature on how to offer iPad surveys to patients about their experience of care, but providing phrases like those identified as strengths in this study will be beneficial. This means staff should be mention how short the survey is, what the survey is about, and why filling it out matters to the patients.

    Making sure that all staff are well-informed about the survey is an important strategy to engage staff in the project. The Agency for Healthcare Research and Quality says that one of the best practices for surveys offered to patients is to engage the frontline staff in the project (AHRQ, 2014). If staff are invested in the project, they will care more about getting patients to share their experience through the survey. Surveys have much higher rates of success when the staff agree with the organization that it is important and will improve care provided by the practice (Sherin, 2014). Besides disseminating information about the survey to all practices, creating a friendly competition between practices to see who can achieve the highest responses rates can also get staff engaged in the project (AHRQ, 2014).

2. Having a universal protocol for cleaning the iPads used for the surveys is necessary. The iPads are considered "noncritical surfaces" in medical environments which can potentially contribute to secondary transmission of infectious agents (Rutala & Weber, 2008). For "noncritical surfaces," it is not imperative that the iPads are cleaned after every patient uses it. Literature provided by the Centers for Disease Control and Prevention and the World Health Organization does not define exactly how often these surfaces need to be cleaned. That being said, MMP should set a specific guideline for how often staff should clean the iPads such as "*Clean the iPad after **X** number of patients have used it,*" to ensure they are cleaned consistently.

   A few staff members interviewed brought up the idea of using stylus' for the iPad surveys to decrease the need to clean the iPads quite as frequently. They figured it would be easier to just clean the stylus rather than clean the iPad and wait for it to dry before the next patient uses it. However, there is limited research available on whether using a stylus would be easier to clean or reduce the risk of infectious diseases spreading.

3. Along with the other information recommended to share with staff and practices about the survey, staff should be told to offer the survey to all patients. Otherwise, selectively excluding specific patient groups from the survey will skew the information collected from the survey responses. While these patients may not normally fill out the survey when asked, they should still be given a chance to provide feedback for the improvement of their care. Telling patients that the survey is working to identify potential health concerns and connecting it to their health, they are more likely to offer their thoughts (AHRQ, 2013). Also, if the survey is publicized to patients via emails, newsletters, flyers, etc., patients can expect to be asked about the survey and this will reduce the likelihood that they will feel bothered or annoyed by the survey (AHRQ, 2014).

Finally, further evaluation of the survey process should be conducted. It is important to continuously observe the surveying process, hear from staff, and look at changes in response rates at regular time intervals. Continuous evaluation and improvement through the PDSA cycle will help to ensure that this new survey for patient experience of care will be utilized to its utmost potential as a reliable tool to include patients in the quality improvement conversation.

This study's data collection tools will be offered to MMP to implement in future PDSA cycles around this new patient experience of care survey.

Limitations

One of the major limitations of this study was the limited time spent at the practices for data collection and the inability to visit more of the practices. It was difficult finding a time to line up schedules with practice managers and staff. When visiting some practices, the time of day for data collection did not represent a typical patient flow and therefore a limited number of patient encounters with the survey were observed. Specifically, some specialty practices had very few patients scheduled for an entire day so observing for an hour did not provide a lot of information. Therefore, the survey process for practices when busy could not be observed, a time staff members said they usually did not offer the survey.

Another limitation during data collection of this study was the potential for the Hawthorne Effect. The Hawthorne Effect refers to when individuals being observed in a study are aware they are being observed and alter their behavior to what they believe is the ideal behavior (McCambridge, J., Witton, J., & Elbourne, D. R., 2014). While observing at the MMP practices, staff were generally asking every patient if they wanted to participate in the survey. However, some staff members mentioned that they were trying to ask every patient because they were being observed and normally do not offer the survey to as many patients.

Finally, some staff were more receptive to the implementation of the new survey than others. Because of this, some data collected during staff interviews may be biased and not accurately reflect true strengths or weaknesses of the survey. Attempting to neutralize any potential bias, findings from the interviews have been analyzed for trends across all practices rather than specific interview responses. However, given the limited number of practices visited for data collection, some biases may be reflected in the results of this study.

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Appendix A – iPad Survey Questions

Please select your provider – (will provide a drop down list of providers in that practice)

1. Was the staff courteous and friendly?

   Yes No

2. When you called in, did the staff give you an appointment within the timeframe you needed?

   Yes No

3. Did the provider listen to your concerns during your visit?

   Yes No

4. Was the information the provider gave you easy to understand?

   Yes No

5. Was the provider respectful while addressing your health concerns?

   Yes No

6. Did the care team adequately address your questions and concerns?

   Yes No

Would you like to be contacted about your experience today?

Yes No

**If the patient selects “Yes” then a box appears for them to enter their name and number.

Appendix B – Observation at Practices Template

Presentation of the survey

1. How are staff asking patients to take the survey?
2. How is the survey delivered to the patient?

Survey-Taking Environment

3. What is the lighting of the area?
4. Is the area noisy/quiet?
5. Are there seats available?
6. Is the area private?

Workflow

7. Are staff slowed down while waiting for patients to take the survey?
8. Are other patients slowed down during checkout?

Overall

9. What are common things that work in the process?
10. What are common things that do not work in the process?

Picture of the Area Included

Appendix C – Staff interview guide

I just want to start off by saying thank you for taking time out of your day to meet with me and allow me to ask you a few questions about the new iPad patient survey. My name is Nathan Paluso, I am a Master's in Public Health student at University of Southern Maine, and this interview is part of my final capstone project. My capstone is evaluating the implementation process of the iPad survey, identifying strengths and weaknesses, and then suggesting solutions to improve the process. Given that the survey is implemented at the check-out desk, your knowledge and feedback is very valuable to gain a better understanding of the survey implementation process.

I was hoping, with your permission, to record this interview just for the sake of notetaking and recollection in the future. As a quick aside - this recording will not be shared with anyone and your name will not be shared or attached to this project. If you would prefer I did not record this interview, I'm happy to take notes instead.

1. Did you receive any training on how to present the survey?
2. Did you receive any training on how to help patients with the survey?
3. Has the survey had an impact on your workflow?
4. Has the survey had an impact on how long patients wait to check out?
5. What are the strengths of the implementation of this new survey?
6. What are the weaknesses of the implementation of this new survey?
7. I really appreciate all the information that you have shared with me about the new iPad survey. Before we close, is there something else about iPad patient experience survey that you would like to share with me?