

## **Increasing Portal System Utilization among Patients of a Community Health Center**

A survey of adult patients at a community health center along with recommendations for improvement and recruiting patients to participate at Adelante Healthcare.

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### **Abstract**

Utilization of the online patient portal system is on the rise with the current changes in healthcare. The patient portal allows patients to take charge of their own healthcare and empowers them to be responsible for scheduling appointments, renewing medications, and reviewing their medical history. However, despite previous research demonstrating the importance of the patient portal and the positive effects it has on the organizations that use it, a lot of community health centers have fallen short of achieving that goal. The project entails a needs assessment and a patient questionnaire that explore what patients perceive of importance for the portal system in order to be able to tailor the system to the patients' needs. Over half of the survey sample indicated a strong interest in be able to send and receive messages directly with the provider as well as the ability to request medication refills. By knowing what patients value the most, Adelante Healthcare, one of the most prominent community health centers in Arizona, can customize their patient portal to include the services valued by the patients. Recommendations on how to effectively increase utilization of the system include signing up patients for the system directly during the office visit, training patients on how to utilize the system, and working with providers to improve their attitudes and satisfaction regarding the system.

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## **Introduction**

Adelante Healthcare is an organization that operates 8 different health clinics throughout Arizona. Its mission is to provide healthcare for underserved populations and serve those who are uninsured. In efforts to improve quality of care, Adelante Healthcare recently developed the patient portal system in order to allow patients to directly communicate with their providers and complete medical tasks online. This project explores different avenues for increasing utilization of the patient portal and recommendations based on the results of a patient questionnaire.

## **Background**

The online patient portal is becoming more popular among healthcare organizations.<sup>1</sup> Recent studies have shown how patient portals can greatly improve the quality of care by allowing patients 24-hour access to their personal health information.<sup>2,3</sup> Once patients register for the portal, they can complete various tasks or view their health information. For example, patients can view lab results, summaries of recent doctor visits, order medication refill, contact their providers directly, schedule appointments, make payments, or view their medical history.<sup>4</sup> In addition to providing patients with all these services, the patient portal has been shown to engage patients in monitoring their own health, which empowers them to make better decisions regarding the prognosis of their illness or their health in general.<sup>5</sup> Additionally, by allowing patients such autonomy of their care, the portal system has shown to enhance patient satisfaction and improve communication between patients and the providers.<sup>1,5</sup> All of these benefits translate to improved long-term outcomes, such as better patient adherence and reducing complications of care.<sup>1,5</sup>

However, despite such benefits of the portal system, less than 5% of the patient population of Adelante Healthcare is currently utilizing the system. Initially, the problem was

attributed to poor advertisement of the patient portal and lack of communication with the patient community regarding this issue. However, through several conversations with both staff and patients, another main issue was identified. Not only are patients most likely unaware of the existence of the patient portal, but also those who do know what it is hardly ever use it. Additionally, providers' attitudes towards the patient portal can be debilitating and exacerbating to the problem of underuse. Previous studies have shown how providers often think negatively of the patient portal due since it essentially increases their workload tremendously. Often patients end up writing long messages to their providers in attempts to resolve the issue via online communication and saving an office visit. Although, direct communication with the providers can be extremely beneficial for patients, it might also hinder the abilities of the providers to complete their work effectively and treat patients efficiently. Due to these issues, this intervention was developed to look into why patients do not use the system and what avenues can be pursued by Adelante Healthcare in order to increase utilization of the system, while keeping the providers satisfied in their work environment.

## **Methodology**

### *Patient Survey*

A needs assessment of the community was conducted during the first two weeks to identify the main issues regarding underuse of the patient portal. Based on the needs assessment, I developed a patient survey during the third week to be conducted at two of the Adelante Healthcare sites: Surprise and Gila Bend (see Appendix A for English and Appendix B for Spanish). The survey was first pre-tested during the fourth week with patients primarily from Gila Bend. Additionally, some of the staff members were involved in the pre-testing phase. Once adjustments were made to the survey, it was then translated to Spanish to account for a huge

Spanish-only speaking patient population of Adelante Healthcare. The Spanish survey was pre-tested with native Spanish speaking staff and patients.

The questions for the survey were non-traditional in that they did not necessarily follow previously developed guidelines for patient surveys and standardized questions; rather they were developed based on the unique issue experienced by Adelante Healthcare. The questions that I wrote were approved by the Chief Information Officer of Adelante Healthcare, Perry Horner, who was my main contact for this project. The survey was fairly short, consisting of either three or four questions depending on the answers of the patients. The questions looked at patient familiarity with and utilization of the portal system. If the patient was familiar with the system and had previously used the patient portal, the patient was asked to rank which of the services were used the most or explain why they did not use it often if that answer was indicated. However, if the patient was not familiar with the system, he or she was asked to rank which services he or she would use had he or she had access to the patient portal.

The survey was conducted at the previously mentioned sites (Surprise and Gila Bend) during the fourth and fifth weeks. Ideally, half the surveys conducted would have been English and the other half based on Spanish speakers. However, due to translation errors in the Spanish survey, that version was deemed invalid and could not be used in the project. This was a huge inconvenience, because that simply eliminated all Spanish-only speaking patients, which potentially could have affected the data and produced biased results.

Patients were asked to complete the survey during the time they spent in the waiting room. The survey was handed out either by me or it was given to the patients by the front desk staff during check-in. A total of 61 English surveys were conducted within the four-day period: two days at Surprise and two days at Gila Bend.

## **Results**

### *Patient Survey*

61 English surveys were collected over the four day period, 53 of which were completed and valid for interpretation, the other eight were either incomplete or were partially answered. All Spanish surveys were not considered for analysis. Out of the 53 completed surveys, four were male and 49 were female patients. The male patients had an average age of 27 with the youngest being 24 years old and the oldest being 32 years old. The 49 female patients had an average age of 39, with the youngest being 19 years old and the oldest being 73 years old.

Out of the 53 completed surveys only 2 patients indicated that they were familiar with the patient portal, and 51 indicated that they were not. Both patients that are familiar with the patient portal indicated that they never signed up to use the patient portal; however, no written explanation was provided as to why they never signed up. Because they never signed up for the survey, these two patients did not complete question 2b ranking the features that they used the most. However, they did complete question 3 ranking the services that they would potentially use had they signed up for the system. One of the patients ranked “send and receive secure messages to/from your provider” as the most important feature to them, followed by “request personal health records (PHRs)” and “request medication renewal”. The other patient indicated “request personal health records (PHRs)” as the most important feature, followed by “request medication renewal” and “send and receive secure messages to/from your provider”.

Out of 51 patients that answered “no” to being familiar with the patient portal, none of them answered questions 2a and 2b, because they had no experience with the system. They did, however, answer question 3 ranking the services that they would potentially use had they signed up for the system. Of those features, “send and receive secure messages to/from your provider”

was ranked by 52.9% of the patients (27 out of 51 patients) as the most important feature had they been using the patient portal. One of the other features that was significant to patients was “request medication renewal”, which was indicated as the most important feature by 19.6% of the population (10 out of 51 patients). Additionally, 11.7% (6 out of 51 patients) indicated that “complete, submit, and renew online forms” was the most important feature. Patients also indicated “request personal health records (PHRs)” as an important feature, with 43.1% (22 out of 51 patients) indicating it as one of the top three features that they ranked. Features that were frequently ranked among the top three most important features were “make payments online”, “update account information” and “view statements online”.

## **Discussion**

The patient portal questionnaire identified some areas for improvement for Adelante Healthcare. Although the patient portal is currently established, the four services offered at this point are not sufficient to entice the patients to use it. These services include: “request, book, or cancel appointment”, “receive and review documents”, “receive and review patient education material”, and “enroll with multiple practices”. Although these are great services to make accessible for the patients online, the patients have identified other features that they perceive of importance. Among the top features identified as importance is the ability to “send and receive secure messages to and from your provider”. This feature was more often ranked #1 in order of importance than any other feature. Additionally, it was often ranked in the top 3 important features if not indicated as the main one. Other features perceived to be important by the patient population are the abilities to “request medication renewal” and “complete, submit, and renew online forms”. Finally, although not often ranked #1, the abilities to “request personal health records (PHRs)”, “make payments online”, “view statements online” and “update account

information” were often ranked among the top 3 features by the patient population.

Although age did not seem to have an effect on the ranking of the options, gender might have been of an influence. With so many surveys conducted in the OB/GYN department, the majority of the answers were from female patients, with only four male patients from the family medicine or internal medicine departments. The male patients had indicated different ranking preferences than the female patient, however, that could have simple been due to a small sample bias which is not completely representative of the male population.

Additionally, as previously explained, all the answers were based on the English speaking population since the Spanish survey was deemed invalid. I believe this greatly influenced the data results, since a huge part of the patient population was not adequately represented in this sample. For example, the majority of patients that frequent the Gila Bend location are Spanish speakers. This limited data collection at that site, resulting in most of the surveys being conducted at the Surprise location, which might not be of best representation of the entire Adelante Healthcare patient population. Not only is Gila Bend a rural clinic, where its patients might not have access to the internet on their computers, but they also might not have the need to access the online patient portal due to location of the clinic. At Gila Bend, a lot of patients would simply drop-in for their visits without scheduling appointments online since they knew the waiting time is not too long. This meant that they had no incentive to sign up for a patient portal to communicate with their provider when they can simply show up at the clinic and get one-on-one treatment. The only thing that might have benefited the patients in Gila Bend would be the option to renew medications online. However, even then, patients can directly call the nurse practioner and ask for a refill on their medication.

Further research should thus explore the different sites independently as they might have

different needs regarding their patient portal utilization. Although, an organization-wide patient portal should be ideally in effect, it might not be beneficial to invest resources on the system if patients of a particular location may not utilize it to its fullest potential.

## **Recommendations**

In order to increase patient portal use, my primary recommendation for Adelante Healthcare would be to include the main features discussed above on the online patient portal. By doing so, the organization is ensuring that the needs of its patient population are being met and they feel that they can take charge of their own healthcare online. Should this process be completed at various stages, the first feature that should be implemented is the ability to “send and receive secure messages to and from your provider” since more than half of the patients indicated its importance. The next phase should include the abilities to “request medication renewal” and “complete, submit, and renew online forms”. Finally, another stage should include the following services: “request personal health records (PHRs)”, “make payments online”, “view statements online” and “update account information”. This should essentially cover all the different patient needs and ensure that the patients are benefiting from the patient portal.

Once this change in the patient portal is completed, my next recommendation is to incentive patients to sign up for the patient portal. Those who already signed up previously should be notified of the changes and provided a tutorial of the new patient portal and the services it offers. However, those who will be signing up for the first time should be targeted to do so during their office visits. Ideally, the patient front desk staff would sign up the patient at the time of check-in by establishing their username for them and a temporary password. By doing so, the organization ensures that the patients are aware of the patient portal and the services it offers. This eliminates any burden put on the patient to access the internet at a later

time and sign up. After the patient signs up for the portal system, he or she should be provided a tutorial session if needed. There are two options for approaching this hurdle. First, a staff member such as the medical assistant could be asked to quickly check-in with the patient once he or she is in the room and ask him or her if they have any questions regarding the system. Should the patient have questions, the medical assistant can provide them a brief summary of the system and direct them to an online tutorial that can be found on the patient portal itself with instructions on how to use it. Ideally, that would be the best option. However, should this not be plausible, the second option can include monthly classes at the site that teach the patients how to use the system. However, this burdens the patients with transportation costs and inconveniences them since mostly likely these classes would be over the weekend. Therefore, an online tutorial once a new patient signs up would be the best option.

Should these methods not be successful in recruiting patients to utilize the system, previous efforts have used other strategies to entice patients to sign-up. Such strategies include a small reduction on the patient's bill. This can be a pre-determined amount or a percentage of the bill. For example, everyone that sign-ups and successfully uses the system for the first six months or so can be eligible for a \$50 reduction of their bill or 2% sale, depending on the organization and its financial sustainability plans.

Additionally, since the system is a two-way street, the patient portal should be emphasized to the providers as well. The providers should receive training on what services are offered through the system so they can better accommodate the patients and address their needs during the office visits. Providers' attitudes regarding the patient portal should also be strongly considered in order for this movement to be effective. One of the ways Adelante Healthcare can accommodate the providers better and ensure their satisfaction with the system is limiting the

space provided for the patients in the direct notes to their providers. Previous research has shown that providers become discouraged with the system due to a high volume of private messages from the patients. However, if there is a character limit on how much the patient can write, this might reduce these concerns of the providers.

## **Conclusion**

With the new shift of technology in the medical field, patient portals are important to ensure the patients are responsible and in charge of their own healthcare. Because each clinic population is different and has different needs, community health centers should poll their patients and see what they value the most on the patient portal. Changes should be considered to the system based on each specific patient population in order to increase utilization of the system and ensure that it is meeting the needs of the patients. Providers should also learn the importance of incorporating a patient portal in their care and how that can greatly benefit their patients.

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## Appendix A: English Patient Survey

Age: \_\_\_\_\_

Gender: M F

1. Have you ever heard of the Adelante Healthcare Patient Portal? Yes No
2. Have you ever signed up to use the Patient Portal? Yes No

**If answered “yes” to Question 2 please continue to Question 2a and Question 2b. If answered “no” please skip to Question 3**

**2a. How often do you use the Patient Portal?**

- \_\_\_\_\_ All the time
- \_\_\_\_\_ Most of the time
- \_\_\_\_\_ Some of the time
- \_\_\_\_\_ Hardly use it
- \_\_\_\_\_ Never use it

***If checked “hardly use it” or “never use it”, please provide a brief explanation on why you have not utilized the Patient Portal:***

**2b. Please rank the following features in the order of most to least usage (1 = most used feature, 4 = least used feature)**

- \_\_\_\_\_ Enroll with multiple practices
- \_\_\_\_\_ Request, book, or cancel appointment
- \_\_\_\_\_ Receive and review documents
- \_\_\_\_\_ Receive and review patient education material

**3. Only answer this question, if you previously answered “no” to Question 2**

**Please rank the following features of the Patient Portal in the order of most to least importance to you (1 = most important, 8 = least important)**

- \_\_\_\_\_ Request medication renewal
- \_\_\_\_\_ Send and receive secure messages to and from your provider
- \_\_\_\_\_ Complete, submit, and review online forms
- \_\_\_\_\_ Complete, submit, and view Instant Medical History forms

- \_\_\_\_\_ Request Personal Health Records (PHRs)
- \_\_\_\_\_ Update account information
- \_\_\_\_\_ View statements online
- \_\_\_\_\_ Make payments online

## Appendix B: Spanish Patient Survey

Edad: \_\_\_\_\_

Género: M F

1. ¿Alguna vez ha oído hablar del Portal del Paciente de Adelante Healthcare?

Si No

2. ¿Alguna vez se ha inscrito para utilizar el Portal del Paciente? Si No

**Si contest “si” en la pregunta 2, porfavor continue con pregunta 2a. Si constesto “no” pase a la pregunta..**

2a. ¿Con qué frecuencia utiliza el Portal del Paciente?

- \_\_\_\_\_ Todo el Tiempo
- \_\_\_\_\_ La mayoría de las veces
- \_\_\_\_\_ Parte del tiempo
- \_\_\_\_\_ Casi no lo usa
- \_\_\_\_\_ Nunca lo usa

***Si selecciono “casi no lo usa” o “nunca lo usa, por favor de una explicación breve***

2b. Por favor, ordene las siguientes opciones en el orden de mayor a menor uso (1 = más utilizada, 4 = menos utilizada)

- \_\_\_\_\_ Inscribirse con multiple clinicas
- \_\_\_\_\_ Solicitud, o cancelar la cita
- \_\_\_\_\_ Completar, submitir y revisar documentos
- \_\_\_\_\_ Recibir y revisar material de educación

3. **Solo conteste esta pregunta si contest “no” a la pregunta 2**

Categorize las opciones del Portal al Paciente de mas importante para usted, a menos importante usando del 1 a 8. (1 = mas iportante, 8 = menos importante)

- \_\_\_\_\_ Solicitud de renovación de medicamentos
- \_\_\_\_\_ Enviar y recibir mensajes seguros hacia y desde su proveedor de
- \_\_\_\_\_ Completar, submitir y revisar documentos
- \_\_\_\_\_ Completar, submitir y revisar documentos historial medico
- \_\_\_\_\_ Solicitar su historial de Salud

- Actualización de información de su cuenta
- Ver declaraciones
- Hacer pagos