Patient Portals: A Streamlined Approach to Engaging Patients

TMF Health Quality Institute

April 2017
# Table of Contents

Introduction ........................................................................................................................................................................ 3

The Evolution and Effect of Patient Portals ........................................................................................................................ 3

Patient Portals and the Quality Payment Program ............................................................................................................. 4

Effective Use of Patient Portals .......................................................................................................................................... 4

Streamlined Portal Planning and Launch (or Re-launch) ..................................................................................................... 5

Promoting and Engaging Patients to Use Portals ............................................................................................................... 7

Optimizing Patient Portals .................................................................................................................................................. 8

Virtual Office Visits via Patient Portals ............................................................................................................................... 9

Future Directions for Patient Portals ................................................................................................................................ 10

References ........................................................................................................................................................................ 11

---

# Authors

Russell Kohl, MD, FAAFP, Medical Director, TMF Health Quality Institute  
Kris Calderon, PhD, CHES, Senior Innovative Strategist/Researcher, TMF Health Quality Institute  
Suzie Daly, MHA, Senior Innovative Strategist/Researcher, TMF Health Quality Institute
Patient Portals: A Streamlined Approach to Engaging Patients

Introduction

More and more, physician practices are using patient portals to better engage patients in their care. However, for those practices that have just gained access to a patient portal or have a portal and are unsure how to maximize its use, involving patients in a patient portal can be overwhelming. The following research is a snapshot of streamlined approaches to better engage patients using a patient portal.

The Evolution and Effect of Patient Portals

Patient Portal Evolution

“In the late 1990s and early 2000s, the earliest adopters of patient portals began offering electronic tools for patient-centered communication, often ‘tethered’ to their integrated electronic health record system” (Garrido, Raymond & Wheatley, 2016). Some of these early portal adopters included Kaiser Permanente, the Veterans Health Administration, Geisinger Clinic, Beth Israel Deaconess Medical Center, Palo Alto Medical Foundation and Children’s Hospital Boston (Garrido et al., 2016).

As an example of portal usage growth, Kaiser Permanente reported essentially no physician-patient emails via their My Health Manager portal in 2003. According to the summary given by Garrido et al., “in the first half of 2015, secure emails represented 33 percent of all primary care physician-patient encounters...There were a total of 23 million secure emails between patients and all levels of providers in 2015” (see Figure 1).

Figure 1. Kaiser Permanente Primary Care Encounters

Additionally, the medium for patient portal access has grown. Beyond desktop computers, health care organizations are leveraging patient portals for mobile use, and patients are responding. According to a recent Healthcare Information and Management Systems Society (HIMSS) survey released during its 2016 conference, 58 percent of health care professionals connect with their patients via mobile-optimized patient portals (2016 Connected Health Survey, 2016). This popularity is for a good reason. While it is true that not all patient portals have the same features, these tools do hold power as patient engagement and satisfaction drivers. Through a deep understanding of all that patient portals can do, providers can leverage these tools to help boost patient engagement and keep serving their clients’ needs outside of the practice walls.
Effect of Patient Portals

In a 2012 review of patient portal studies (Ammenwerth, Schnell-Inderst & Hoerbst, 2012), the use of the patient portal was rarely linked to improved outcomes. However, in 2015, Kruse et al. summarized study results on the effect of patient portals on quality and chronic condition outcomes (defined by the Agency for Healthcare Research and Quality), and found that 37 percent (10/27) of studies reported improvements in outcomes. Specifically, improvements were seen in medication adherence, disease awareness and self-management of disease. Additionally, there was a decrease in office visits, an increase in preventative medicine and an increase in extended office visits at the patient’s request for additional information (Kruse, Bolton & Freriks, 2015).

Patient portals hold several other benefits in addition to clinical outcomes. For instance, the 2015 meta-analysis shows an increase in quality in terms of patient satisfaction and customer retention. Portals are major drivers of patient loyalty. Because portal features like secure messaging facilitate strong bonds between patients and providers, these tools make patients want to return to a certain provider. When a provider can regularly check in with their chronically ill patient, they can ensure that proper follow-up measures are made for the patient to come to the office when necessary.

In a 2013 study from the Portland Veterans Affairs Medical Center, researchers found that patients who were able to access their health information on the U.S. Department of Veterans Affairs (VA) My HealtheVet patient portal, reported better control over their health. The following are findings from the study:

Patients’ perspectives provide insight into how shared notes can foster active patient participation in their care. In all focus groups, participants put knowledge from their records to use by learning more about their health issues, gaining more knowledge about their providers’ views, and advocating for themselves in discussions about their care. Reading health information in an unpressured manner allowed patients time to contemplate its content and meaning (Woods, et al., 2013).

Patient Portals and the Quality Payment Program

With the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) Final Rule and establishment of the Quality Payment Program (QPP), the Centers for Medicare & Medicaid Services and other payers are driving patient access to information with the goal of empowering patients and improving outcomes. Under the QPP Advancing Care Information (ACI) category, patient engagement is a major area of focus. Specifically, eligible clinicians will need to offer patients access to health data and participate in care coordination with other providers, which includes meeting the following requirements:

- Allow each patient to view, download and transmit their health data
- Grant each patient access to their health data via an application programming interface (API)
- Supply patient-specific educational materials
- Allow each patient to view, download and transmit their health data to a third-party provider
- Send or answer at least one secure message with each patient
- Collect patient-generated health data from each patient
- Send or receive a summary of care from a third-party provider for each patient

The QPP places high value on communicating with patients outside traditional telephone methods, emphasizing patient consumerism and improving the accessibility of clinical data to patients. Gaining economies of scale from using available technology more globally across physician practices could save front office staff time and result in more satisfied, engaged patients (Heath, 2016).

Effective Use of Patient Portals

It is clear that the patient portal is becoming a mainstay in practices and health care systems, and its positive effect on patient communication and engagement has resulted in early reports of improved health outcomes. Moreover, providers are highly motivated via the QPP and other value-based care models to enhance and improve patient engagement.
Given these factors, providers are faced with the task of optimizing a patient portal within the time constraints of their busy practices. Understanding which patients are the most likely to use the portal is important in developing the planning and launch of the portal. A recent study found patients with comorbidities were more likely to use a patient portal, while African Americans and Latinos, regardless of comorbidity status, were less likely. Older patients were more likely to use the portal, but when adjusting for comorbidities, age was not a determining factor (Krist, et al., 2014). Patients who visit a practice more frequently are more likely to use a patient portal, as they are scheduling more appointments, have more questions, require more clinical decision-making support (self-management support) and are paying more bills. In planning for the launch (or re-launch) of the practice’s portal, analyzing a practice’s patient population and drawing some hypotheses around the patient populations that will use the portal may be helpful.

The following sections offer key strategies for launching patient portals and engaging patients effectively and efficiently.

Streamlined Portal Planning and Launch (or Re-launch)

*Establish a vision for portal use.* The vision for how a portal should be used to best support a practice’s patient engagement and operational strategy varies greatly, and will more than likely evolve over time. The following are some common goals in when using a portal:

- Engage patients to be actively involved in their care
- Streamline front and back office functions
- Improve communication between providers and patients
- Implement virtual office visits through the portal

These goals can be accomplished by using a portal in various ways. Practices may decide that the portal should be used primarily to communicate with the patient unilaterally, providing information such as medical records, lab reports, test results, screening reminders and/or patient education resources. Information is pushed out to patients, with any follow-up or questions handled through telephonic encounters. Additionally, practices can use the portal for patients to push information directly to the practice, including scheduling or changing appointments or requesting medication refills or medical records.

Going one step further, practices can use a portal for bilateral data exchange, which facilitates two-way communication between the patient and the provider or staff. In this case, the patient can access all of the information available, then email the provider or staff directly and securely with questions or follow-up. Finally, practices are beginning to use their portals to further engage patients and potentially increase practice revenues through virtual visits.

**Figure 2. Portal Utilization: A Communication Continuum**

<table>
<thead>
<tr>
<th>Unilateral Data Exchange</th>
<th>Bilateral Data Exchange</th>
<th>Virtual Visits</th>
</tr>
</thead>
</table>
| • Practice to patient: medical records, lab reports, test results, screening reminders, patient education resources  
• Patient to practice: scheduling, medication refill requests, records requests |
| • Secure messaging between patient and provider(s) or staff (depending on practice-specific workflow) |
| • Connect with the patient to diagnose and treat non-complex medical conditions |

**GET PATIENT FEEDBACK**

Obtaining feedback from patients and their families through a Patient and Family Advisory Council, patient surveys or a patient-led focus group can provide valuable insight as to what will engage patients and their families in the portal. This is often an overlooked step in developing the vision for portal use in the practice.
Some practices opt to begin using the portal with a unilateral exchange of information, choosing one or two key features that will be important to patients. Then, practices progress to a bilateral exchange of information and possibly virtual visits.

**Obtain internal provider and staff buy in.** Identifying key providers and staff members to be involved in the process, while ensuring that all staff members fully embrace the vision of the portal, is a critical step. Introduce the portal technology to all staff members, illustrating how to use the portal and emphasizing ways in which using the portal will save staff time and resources by improving the patient’s experience and flow of the practice. To obtain provider and staff buy in, ensure everyone is comfortable with the technology and understands its utility. Staff who embrace portal use practice-wide are more effective at engaging patients (Krist, et al., 2014).

**Establish a portal implementation team.** Identify one physician champion and one administrative champion to take ownership of the effort. Add portal utilization as a standing agenda item to internal team meetings. If possible, consider piloting the use of new aspects of the portal with one provider or location before implementing across the organization.

**Excite staff about engaging patients.** When the entire team is involved in engaging the patient, results are more positive (Krist, et al., 2014). By developing a vision and integrating the portal into the daily workflow of the practice, patients are driven to use the technology. Involving the entire staff in portal engagement is the key to its success. Excite staff about this new technology by emphasizing the benefits of having the portal. These benefits may include the following:

- Less time on the phone to coordinate scheduling
- A lower no-show rate
- Less time going back and forth between providers to get questions answered
- Streamlined billing
- Fewer requests for test results
- Happier, more engaged patients who are receiving better care

**Set goals, benchmarks and performance standards.** Providers must understand all of the competing priorities in a busy practice and develop a plan that includes steps to take to use the portal effectively. Table 1 provides a sample plan for portal implementation.

<table>
<thead>
<tr>
<th>Implementation Step</th>
<th>Measurable Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop and share portal vision practice-wide.</td>
<td>Share vision at team meetings and repeat frequently.</td>
</tr>
<tr>
<td>Develop a customized approach based on the practice’s culture. Identify two to three key elements that will encourage patients to join.</td>
<td>Highlight areas where the portal will save staff time and frustration, which could include fewer returned calls, streamlined scheduling, less back and forth communication between providers and staff, etc.</td>
</tr>
<tr>
<td>Develop a portal implementation team.</td>
<td>Hold an initial implementation meeting (one hour), and add portal engagement as a standing agenda item to team meetings.</td>
</tr>
<tr>
<td>Share practice vision, introduce technology to providers and staff and identify an implementation team to include physician and administrative champions. Make it FUN!</td>
<td>Consider sharing a staff win at each meeting.</td>
</tr>
<tr>
<td>Develop an implementation plan to include unidirectional information pushes, bidirectional information pushes and/or virtual office visits.</td>
<td>If implementing key functionalities of the portal in succession, establish timeline targets for each.</td>
</tr>
<tr>
<td>Allot time to test each implementation with one</td>
<td>Consider holding off on promotions and engagement until key elements are in place.</td>
</tr>
</tbody>
</table>

**TABLE 1: Sample Portal Implementation Plan**

**PROVIDE STAFF TRAINING**

Providing thorough training to ensure that everyone is comfortable with the technology and the workflow to support the technology before going live is a critical step in implementation. Staff will support a system that makes their lives easier. Staff will not promote or encourage engagement of patients in a system that is frustrating to use, causes patients to complain or creates more work for them.
Promote the portal.

Although this is an important first step in introducing the technology to patients, this will result in the engagement of few patients.

Promotion ideas:
- Staff member guides patient through sign-up and provides education on use
- Hang signs in the office
- Add a recording to the message on voicemail
- Develop a card to be given at checkout
- Announce on the website
- Send a promotional email to patients
- Add information to billing statements

Engage patients.

This is the most important step to successfully implementing a patient portal. See Table 2 for specific strategies.

Report the percentage of engaged patients.

Because staff buy in is critical, report progress of the percent of engaged patients in an engaging format (e.g., thermometer on the wall, trending chart). Consider providing staff incentives for reaching goals (e.g., pizza party, gift cards).

Implement improvements based on patient and staff feedback.

Big-picture benefits of patient portals are undoubtedly empowering patients and giving them ownership in their own care.

Promoting and Engaging Patients to Use Portals

The First Step: Promotion

Although promoting the portal is an important first step to raise awareness, promotion activities alone will most likely result in minimal patient engagement. As illustrated in Table 1, the key to a successful promotion strategy is to incorporate a message about the existence of the portal in many ways. Messaging should focus on the positives, including what the patient can gain from registering for the portal like a faster registration process, access to reserved scheduling times for portal users, 24/7 access to health data (including testing and lab results), sharing data with other providers or, if applicable, virtual visits.

The Next and Most Important Step: Engaging the Patients

The key to successfully engaging patients in the portal is to fully integrate it into the daily workflow of the practice. A recent study in The Annals of Family Medicine found patient use of portals increased when the entire office promoted the patient portal throughout the patient’s visit (Krist et al., 2014). Mapping a patient’s interactions with the practice may help to identify key interface points where the patient can be encouraged to use the portal. If the practice is considering a mapping approach, identify key point(s)
where patient engagement should begin. Table 2 contains examples of patient interaction strategies. Consider implementing two or three of these strategies for best results.

Table 2: Patient Interaction and Engagement Strategies

<table>
<thead>
<tr>
<th>Patient Interaction</th>
<th>Engagement Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The patient calls to make a well visit appointment.</td>
<td>Staff offers to send email with a link that will give the patient access to an exciting new tool.</td>
</tr>
<tr>
<td>Avoid discussing new technology with ill patients or those attending the office with an ill family member.</td>
<td>The staff member emphasizes that this tool will help the patient easily make changes to his or her appointment and complete paperwork before he or she arrives to minimize waiting time.</td>
</tr>
<tr>
<td>The patient presents at the office for well visit.</td>
<td>If the patient has accessed the portal and logged in, a staff member provides the patient with a handout on how to access lab and test results, request prescription refills, email the provider and, if applicable, access virtual visits.</td>
</tr>
<tr>
<td></td>
<td>If the patient has not accessed the portal and logged in, a staff member helps the patient log in for the first time on a handheld device, providing information on how to use the portal and answering any questions.</td>
</tr>
<tr>
<td>The patient sees the medical assistant (MA) or nurse while waiting for the provider.</td>
<td>The MA or nurse tells the patient that he or she can access test results after the visit using the patient portal.</td>
</tr>
<tr>
<td></td>
<td>The MA or nurse confirms the patient has a login. If the patient did not receive information from the front desk, the MA or nurse provides that information in the room.</td>
</tr>
<tr>
<td>The provider mentions the portal and tells the patient to ask the experts at check out if he or she needs any more information.</td>
<td>The provider highlights the availability of test results, medical records, bidirectional interactions (secure email) and virtual visits, if applicable, in the portal.</td>
</tr>
<tr>
<td></td>
<td>“Once you obtain the results from your lab today from our portal, please feel free to email me with any questions.”</td>
</tr>
<tr>
<td>The patient’s test results come back from the well visit.</td>
<td>An email is sent to the patient with the link to the portal for the patient to access the information electronically.</td>
</tr>
<tr>
<td></td>
<td>If the office has incorporated bidirectional secure messaging, the patient can ask questions directly to his or her provider.</td>
</tr>
</tbody>
</table>

**Optimizing Patient Portals**

There are many ways to optimize patient portals, whether for unidirectional or bidirectional communication. Table 3 highlights ways in which portals can be optimized for both forms of communication.

**IN-OFFICE PORTAL ACCESS**

Use a computer or handheld device in the office to help patients navigate to the site, log in and identify where they will see test results, message their provider or access e-visits. This is a highly effective way to engage patients and minimize technological questions when the patient gets home.

Although this effort requires more staff time initially, some practices report up to a 75 percent decrease in telephone calls as a result of high portal utilization. Ultimately, empowered and satisfied patients are more engaged patients, and they are more likely to follow care plans and pay their bills.
Table 3. Patient Portal Optimization

<table>
<thead>
<tr>
<th>Portal Communication</th>
<th>Optimization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unidirectional Communication</strong></td>
<td>• Use the portal for the following tasks:</td>
</tr>
<tr>
<td><em>Making health data available, scheduling appointments, accessing lab and test results</em></td>
<td>• Implement an option for patients to self-schedule, and even set aside limited appointments for patients using the portal</td>
</tr>
<tr>
<td>Example: A patient accesses the portal to request a medication refill. The refill is reviewed, filled and electronically forwarded to the pharmacy. The patient receives an email notification that the prescription is being filled at the requested pharmacy.</td>
<td>• Remind patients of important screenings and preventive services</td>
</tr>
<tr>
<td>• Distribute well-developed patient education, shared decision making and self-management support materials</td>
<td></td>
</tr>
<tr>
<td>• Facilitate medication refill requests</td>
<td></td>
</tr>
<tr>
<td>• Electronic payments (<em>when considering a payment process vendor, ensure they are PCI Level 1 compliant (use bank-level security/privacy measures)</em>)</td>
<td></td>
</tr>
<tr>
<td><strong>Bidirectional Communication</strong></td>
<td>• The process for using direct messaging is as follows:</td>
</tr>
<tr>
<td><em>Giving patients the ability to communicate directly with practice staff or providers via secure web messaging or email</em></td>
<td>• Test the workflow and secure messaging capabilities with a few providers first</td>
</tr>
<tr>
<td>Example: A patient visits the provider and is placed on new medicine. The patient follows up with the provider via secure messaging and/or has labs drawn. The doctor reviews them and has a virtual visit.</td>
<td>• Route the incoming email to a central point of contact (MA, nurse, nurse manager), then assign to a specific provider if his or her input is needed to facilitate team-based care</td>
</tr>
<tr>
<td>Example: A patient with a chronic condition has the ability to record home test results (blood sugar, blood pressure, weight) and ask questions related to the results quickly and easily.</td>
<td>• Ensure emails are easily visible to the staff and providers in the EHR's inbox</td>
</tr>
<tr>
<td></td>
<td>• Set a timeframe for staff or provider response</td>
</tr>
<tr>
<td></td>
<td>• Determine whether an office manager or other administrator provides oversight in a case where the provider is out</td>
</tr>
<tr>
<td></td>
<td>• Consider a tracking system of incoming emails and outgoing responses</td>
</tr>
<tr>
<td></td>
<td>• Consider adding a double-check to ensure all emails receive responses within the workflow</td>
</tr>
</tbody>
</table>

**Virtual Office Visits via Patient Portals**

A growing number of health care organizations, including health systems, urgent care facilities and payers, are partnering with telehealth services such as American Well, MDLIVE, Teladoc and Doctors on Demand to provide virtual office visits (VOV) for patients seeking urgent but low acuity care. The availability of VOVs for low-acuity diagnoses such as treating allergies, bladder/urinary tract infections, bronchitis, cough/cold, diarrhea, migraine/headaches and upper respiratory infections are increasing in many markets. This is an area for primary care providers to potentially step above the competition or increase a potential revenue source. VOVs can also provide outreach to those patients in rural areas, saving them an often long trip to their primary care or specialist office. Moreover, patients with limited or no transportation can take advantage of a VOV offering as well.

Staff should consider many elements when determining if VOVs are right for the organization:

1. There are many VOV communication options. A couple of the most popular mechanisms include the following:
a. An asynchronous two-way secure email communication involving the patient portal
b. A scheduled video conferencing visit

2. Determine the technology that makes the most sense for the practice in providing virtual visits. Some primary care offices use a web-based form on their EHR portal to provide this service. Consider the technology available through the EHR, including what templates and other forms the practice will need to develop. A well-developed form allows patient responses to be pulled into the encounter note in the EHR and has the ability to publish the completed note back to the patient. Other providers contract with companies that provide videoconferencing or live streaming capabilities for the exams.

3. Determine what that providers in the office are comfortable with. Most practices limit access to virtual office visits for established, active patients and for common medical problems that can be handled without the benefit of a physical exam.

4. Establish the pre-set questions that patients will complete when they are seeking treatment.

5. Consider prescribing parameters. Controlled substances are rarely prescribed or administered in a VOV.

6. If the practice is using an EHR for the visit, work with a vendor to develop custom forms for the virtual visit. Include required discrete response checkboxes for all critical elements.

7. Determine and map out a workflow for the practice. Using a centralized point of contact (i.e., a nurse manager) may be helpful to track responses. Determine a practice-wide expectation for response time. Many practices target responding on the same day or within 24 hours.

8. Implement and test workflows and processes with one provider before expanding to all providers (see Table 3).

**Figure 3. Sample Virtual Office Visit Workflow Using Asynchronous Bidirectional Interface**

![Figure 3. Sample Virtual Office Visit Workflow Using Asynchronous Bidirectional Interface](image)

**Future Directions for Patient Portals**

As the advancement of telemonitoring for chronic conditions continue to grow, so will the need for streamlined asynchronous communication between providers and patients. This demand for asynchronous communication will push advancements in the use of patient portals. With indications from the health care market that investment in mobile health apps and telemedicine companies remains strong, the pace of adoption of patient portal-anchored technologies will be rapid. How these new technologies interface with a provider’s EHR and the role they play in the evolution of the patient portal remains to be seen. Embracing a streamlined asynchronous communication platform will be critical for the future of practices and the continuation of patient engagement.
References


About TMF

TMF Health Quality Institute focuses on improving lives by improving the quality of health care through contracts with federal, state and local governments, as well as private organizations. For more than 40 years, TMF has helped health care providers and practitioners in a variety of settings improve care for their patients. For more information about TMF, go to www.tmf.org.