Usability & User Interface in the Kaiser Permanente PHR system

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Executive Summary:

This report provides a deconstruction and analysis of Kaiser Permanente’s personal health record (PHR) system known as my health manager. The analysis focuses on the usability and user interface of the PHR system. Results of the investigation suggests that although convenient the system itself is not easily navigated through and may be more confusing than helpful to some users.

In recent years, patients have become more empowered with the introduction of such technologies as personal health records or PHR. Unlike electronic health records (EHR), a PHR allows the patient to be in control with full access to their health records from the comfort of their own home. Personal health records (PHR) can be defined as “an electronic application through which individuals can access, manage and share their health information, and that of others for whom they are authorized, in a private, secure, and confidential environment”(Tang, 2006).

The U.S. Secretary of Health and Human Services and the Centers for Medicare and Medicaid Services see the potential of PHR as a safe and effective way to streamline care. These government entities view integration of PHRs into the healthcare system as a top priority so to add a level of safety and convenience to the consumer (Tang, 2006). According to a recent study, use of
PHRs have increased from 3% to 10% usage while 40% of the respondents to the survey expressed interest in having or using a PHR (Taha, 2013).

With the increased integration of EHR into our health system over the last 5 years, the use of PHR is anticipated to rise. A PHR can be created through an application online using a stand alone system (where the patient can input his/her own information without connection to a healthcare system) or use of a system attached to the managed care system providing health coverage to the patient. In certain systems access to personal health records allow the patient the freedom to make medical appointments, email doctors, request refills of medications while having free access to all their personal healthcare information (Taha, 2013). In some PHR systems there is even a corresponding app that can be accessed through a smartphone allowing for even more convenience.

Kaiser is a perfect example of a managed care system that has been at the forefront in the creation of their own version of PHR, known as my health manager. This system, launched in 2005, reached a momentous milestone in 2009 being the first PHR system to have 3 million active users. Kaisers health manager system not only allows patients access to their own health records (visit summaries, lab results, medications, and the like) but also creates the freedom to communicate with their doctors, make medical appointments, request refills of medications as well. Despite the wide range of capabilities this
electronic PHR may possess, this system lacks the friendly user interface that
makes it usable to the consumer.

The introduction page at https://healthy.kaiserpermanente.org/health/care/signon is the easiest portion of this overwhelming website. The portal page invites the patient to sign on using the user name and password determined by the
user (see Appendix A). After signing in the user is then directed to the my
health manager, an introduction page which allows the patient to decide what function they would like to view on their PHR. This is the first glimpse of the
double toolbars that, although consistent throughout the website it appears to cause more confusion than direction. While there are six wide, easy to read tab options on the bottom of the page to choose from, the double toolbar lingering on the top with the same six options above making it difficult navigating through (see Appendix B).

As the user maneuvers into their personal health record they will find the introduction of yet another series of options that appear on the left side of the screen (see Appendix C). This page should be simple and easy to operate through but it takes an average user extra time to determine what to do with all the options on the screen. Once a tab is chosen on the left, the corresponding information appears in the center of the page. One nice feature of this PHR is in this depth of this interface which allows it to become more self evident with use. Take for example the screenshot from Appendix D, if you
want to view your immunization record you click on the immunization tab on the left. If a patient wants to schedule or alter an appointment from the immunization screen you have to use the second tool bar running horizontally across the screen. Once the tab “Appointment Center” is clicked a new list appears on the left, the options to choose from include “past visit information”, “schedule appointment”, or “view, cancel, or change appointment”. The choice of language is not effective and only adds confusion. If schedule appointment tab is selected a 4 step process which is explained in detail and easily maneuvered through (See Appendix E). The final screen in Appendix F demonstrates how to send for pharmacy refill requests. Ordering prescriptions is fairly straightforward with no excessive clicks, but the list on the left is not cohesive and presents a mix of random unconnected options.

The most useful feature is that the system allows communication with both the pharmacy and the patients primary care provider. If I could make one change to the portal it would be related to the design features of the website, by reducing the amount of options and busyness on the screen the my health manager may be more useable. Although convenient, the Kaiser PHR system is not easily navigated through and may be difficult especially for those with computer illiteracy or cognitive impairments.
Appendix A
Appendix B
Appendix C
Appendix D

[Immunizations table]

<table>
<thead>
<tr>
<th>Immunization</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumovax® (Pneumococcal vaccine)</td>
<td>10/22/2009</td>
</tr>
<tr>
<td>PPS-AC®-DS standard dose (Influenza vaccine, influenza A and B)</td>
<td>10/22/2009</td>
</tr>
<tr>
<td>PPS-AC®-DS standard dose (Influenza vaccine, influenza B)</td>
<td>10/22/2009</td>
</tr>
<tr>
<td>PFS-AC®-DS standard dose (Influenza vaccine, influenza A)</td>
<td>10/22/2009</td>
</tr>
</tbody>
</table>
Appendix E

Schedule appointments

Help with scheduling appointments:

We care about your health and helping you make wise care decisions. Understanding what kind of care you need is important.

Important: If you think you have a medical or psychiatric emergency, call 911 or go to the nearest hospital. Do not attempt to access emergency care through this website.


Don't use your browser's back button. It will cancel this process.

Is this appointment for:
- Yourself
- Someone else

Continue
Appendix F
REFERENCE

Kaiser Personal Health Record. The Henry J. Kaiser Family Foundation.
