## Patient Portals

### NCIOM Task Force on Patient and Family Engagement

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July 24, 2014



## • • Patient Portals

"A patient portal is a secure online website that gives patients convenient 24-hour access to personal health information."

(Office of the National Coordinator for Health Information Technology)

#### Common Features:

- Schedule appointments
- Access health records
- View lab results
- Order prescription refills
- Send secure emails to providers



Figure 1. Drivers, Benefits, and Barriers to Patient Portal Implementation

#### BENEFITS

#### **Patients**

- Conveniently view personal health information
- Request/schedule appointments
- Communicate securely with providers
- Access credible info

#### Health Centers / Providers

- Administrative efficiencies (fewer calls)
- Routine tasks given to care team
- More time for critical patients

#### DRIVERS

#### Meaningful Use

 Electronic access to health records

#### Medical Home

 Patient-centered health IT and analytic tools

#### Health Reform

 Strategic differentiator for patient engagement

#### BARRIERS

#### **Patients**

- "Digital divide"
- Literacy
- Language
- Privacy concerns

#### Providers

- Potential for added work
- Lack of reimbursement
- Inappropriate use by patients
- Liability for security breaches



# What do we know about patient portals?

- Those most likely to use patient portals:
  - Younger (Shaw and Ferranti, 2011) (Van der Vaart, 2014)
  - Higher education and higher SES (Ancker et al., 2014) (Emont, 2011)
  - More frequent internet use and greater self-perceived internet skills (Van der Vaart, 2014) (Ancker, 2014)
  - Patients with chronic conditions (Emont, 2011) (Ancker et al., 2011)
  - Patients who report greater trust and better communication with providers (Lyles et al., 2013)
- o Portal features most commonly used:
  - Filling prescriptions (Adler, 2006) (Sarkar et al., 2014)
  - Secure messaging with providers (Adler, 2006) (Ammenwerth et al., 2012) (Lyles et al., 2013)

# What do we know about patient portals?

- Portals impact patient experience and satisfaction
  - Positive: portals are easy to use, useful, improve communication with providers, and enhance the quality of appointments (Van der Vaart, 2014) (Wade-Venturo et al., 2013) (Schnipper et al., 2008)
  - Negative: portals hinder communication with providers, are difficult to use (Emont, 2011) (Zarcadoolas et al., 2013)
- Portals can increase patient engagement
  - 44% of users reported feeling more involved in their treatment and 37% felt they had more knowledge about their treatment (Van der Vaart, 2014) (Emont, 2011)
- Users felt like a "team member" in their own care and more connected to their providers (Emont, 2011)

# What do we know about patient portals?

- Portals can increases operational efficiency and reduce health care costs
  - Fewer office visits and phone calls per patient (Emont, 2011) (Ammenwerth et al., 2012)
  - Enhanced efficiency during office visits (Wade-Venturo et al., 2013)
  - Hospitals and providers report savings in lab result delivery costs and appointment scheduling costs (Emont, 2011)
- Use of portals improves patient adherence to treatment (Sarkar et al., 2014) (Ammenwerth et al., 2012)
- Portal use increases preventive care
  - Screening rates for colorectal, breast, and cervical cancer increase with portal use (AHRQ, 2012)
- Use of portals improves disease management
- Diabetes management, cholesterol control (Shaw and Ferranti, 2011) (Sarkar et al., 2014) (Wade-Venturo

## Unique Opportunities

- Connection with community and statewide HIEs/connection with integrated care systems
  - Must prioritize portal functionality over convenience; as of yet, most health systems go with the convenient option of using the patient portal aligned with the existing EMR/EHR (KLAS, 2012) (latric Systems)
- Potential for more patient engagement in quality and safety improvement
  - Some portals allow patients to view and modify lists of their medications and allergies, give feedback on side-effects and other medication-related problems, and view and approve provider notes after appointments (Schnipper et al., 2008) (Delbanco et al., 2012)
- Room for innovation in portal design to attract and sustain more users
  - Special populations

### References

- HealthIT.gov. What is a patient portal? <a href="http://www.healthit.gov/providers-professionals/faqs/what-patient-portal">http://www.healthit.gov/providers-professionals/faqs/what-patient-portal</a>
- 2. Kaiser Permanente. Press Release: Personal Health Record Associated with Improved Medication Adherence. 2014. <a href="http://share.kaiserpermanente.org/article/personal-health-record-associated-with-improved-medication-adherence/">http://share.kaiserpermanente.org/article/personal-health-record-associated-with-improved-medication-adherence/</a>
- 3. California HealthCare Foundation. Patient Portals in the Safety Net. 2013. <a href="http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/20PatientPortalPlanning.pdf">http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF%20PatientPortalPlanning.pdf</a>
- 4. Centers for Medicare & Medicaid Services. 2014 Definition Stage 1 of Meaningful Use. 2014. <a href="http://www.cms.gov/Regulations-and-dudance/Legislation/EHRIncentivePrograms/Meaningful Use.html">http://www.cms.gov/Regulations-and-dudance/Legislation/EHRIncentivePrograms/Meaningful Use.html</a>
- Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. March 2001. <a href="http://www.iom.edu/~/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf">http://www.iom.edu/~/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf</a>
- 6. Adler K. Web Portals in Primary Care: An Evaluation of Patient Readiness and Willingness to Pay for Online Services. 2006. J Med Internet Res, 8(4):26.
- 8. Shaw RJ & Ferranti J. (2011). Patient-Provider Internet Portals Patient Outcomes and Use. <a href="http://www.ncbi.nlm.nih.gov/pubmed/21697705">http://www.ncbi.nlm.nih.gov/pubmed/21697705</a>
- 9. Van der Vaart R, et al. (2014). Impact of patient-accessible electronic medical records in rheumatology: use, satisfaction and effects on empowerment among patients. <a href="http://www.biomedcentral.com/1471-2474/15/102">http://www.biomedcentral.com/1471-2474/15/102</a>
- Ancker JS, et al. (2014). Patient activation and use of an electronic patient portal. <a href="http://informahealthcare.com/doi/abs/10.3109/17538157.2014.908200">http://informahealthcare.com/doi/abs/10.3109/17538157.2014.908200</a>
- Emont S. (2011). Measuring the Impact of Patient Portals: What the Literature Tells Us. <a href="http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/M/PDF%20MeasuringImpactPatientPortals.pdf">http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/M/PDF%20MeasuringImpactPatientPortals.pdf</a>
- Ancker JS, et al. (2011). Use of an electronic patient portal among disadvantaged populations. <a href="http://www.ncbi.nlm.nih.gov/pubmed/21647748">http://www.ncbi.nlm.nih.gov/pubmed/21647748</a>
- Lyles CR, et al. (2013). Patient-provider communication and trust in relation to use of an online patient portal among diabetes patients: The Diabetes and Aging Study. <a href="http://www.ncbi.nlm.nih.gov/pubmed/23676243">http://www.ncbi.nlm.nih.gov/pubmed/23676243</a>.
- Sarkar U, et al. Use of the Refill Function Through an Online Patient Portal is Associated with Improved Adherence to Statins in an Integrated Health System. March 2014. Medical Care, 52(3):194-201.
- Ammenwerth E, et al. (2012). The Impact of Electronic Patient Portals on Patient Care: A Systematic Review of Controlled Trials. <a href="http://www.jmir.org/2012/6/e162/">http://www.jmir.org/2012/6/e162/</a>
- Wade-Venturo AE, et al. (2013). Secure messaging and diabetes management: experiences and perspectives of patient portal users. http://www.ncbi.nlm.nih.gov/pubmed/23242764
- Schnipper J, et al. Design and implementation of a web-based patient portal linked to an electronic health record designed to improve medication safety. 2008. Informatics in Primary Care, 16(2):147-155.
- Zarcadoolas C, et al. (2013). Consumers' perceptions of patient-accessible electronic medical records. <a href="http://www.ncbi.nlm.nih.gov/pubmed/23978618">http://www.ncbi.nlm.nih.gov/pubmed/23978618</a>
- AHRQ. Healthcare Innovations Exchange. Primary Care Patients Use Interactive Preventive Health Record Integrated With Electronic Health Record, Leading to Enhanced Provision of Preventive Services. 2008. <a href="http://www.innovations.ahrq.gov/content.aspx?id=3743">http://www.innovations.ahrq.gov/content.aspx?id=3743</a>
- 20. KLAS. Patient Portals: The Path of Least Resistance. November 2012. www.KLASresearch.com
- latric Systems. Integrated Health Systems Will Require Integrated Patient Portals. <a href="http://www.iatric.com/images/Public/Documents/IntegratedPatientPortals.pdf">http://www.iatric.com/images/Public/Documents/IntegratedPatientPortals.pdf</a>
  Delbanco T, et al. Inviting Patients to Read Their Doctors' Notes: A Quasi-experimental Study and a Look Ahead. 2012. Ann Intern Med, 157(7):461-470.

### **Discussion**

What are the benefits and challenges of patient portals?

- Patient perspective
- Provider perspective
- Health system perspective

