Patient Engagement and Health IT

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Office of Information Technology
Patient Engagement

- “A concept that combines a patient's knowledge, skills, ability and willingness to manage his own health and care with interventions designed to increase activation and promote positive patient behavior"

How we engage patients

Patient education
Skill building
Referrals to experts
Guidance
Adult Learning Theory

- Are self-directed
- Encourage collaboration
- Utilize personal knowledge and life experiences
- Slower learning but more integrative knowledge
- Less open-minded, resistant to change
- Highlight practicality
- Are goal oriented
- Are relevancy oriented
TECHNOLOGY ADOPTION LIFE CYCLE

- Innovators: 2.5%
  - More risk-oriented
  - Open to new ideas

- Early Adopters: 13.5%
  - More conservative but open to new ideas

- Early Majority: 34%
  - Fairly conservative
  - Late Majority
  - Change-averse

- Laggards: 16%
• 4.7 billion: daily Google searches
  • 1 in 20 (235 million) Google searches is for health-related information
• 80 percent of Internet users seek online health information
• 77 percent of patients used a search prior to booking an appointment
• 66 percent of Internet users look online for information about a specific disease or medical problem
• 44 percent of Internet users look online for information about doctors or other health professionals
Telephone
Digital Divide

More Information
Greater Access
Awareness
More Control
Easier

Learning Curve
Cost
Security and Privacy
Internet Access
Patient Engagement Initiatives:

- Social networks, used by 44 percent of respondents
- Patient portals, used by 79 percent of respondents at scale or on a pilot basis
- Secure email, used by 68 percent of respondents
- Online/mobile scheduling (including reminders), used by 49 percent of respondents
- Patient-generated data, such as within an EHR, used by 47 percent of respondents

Social Media

Amy Pisani, Exec Dir @EveryChildBy2 - Apr 22
Thanks to all those who showed support for vaccines in today's MarchforScience & for everyone who participated in our VaxChart challenge!

"Vaccines deserve a big high five for helping to keep us all alive! #VaxChallenger #4thPhotoPrev #NH3D

United Nations India @UNIndia - Apr 28
Immunization is a successful & cost-effective mean to help children grow into healthy adults! @WHO @UNICEFIndia VaccinesWork

CDC Global Health @CDCGlobal - May 1
Since the introduction of the rotavirus vaccine, hospitalizations & emergency visits for rotavirus have dropped dramatically. VaccinesWork

#VACCINESWORK TO SAVE LIVES
In estimated 2.3 million deaths are prevented every year.

- Vaccines protect against 26 diseases.
- And help limit the spread of antibiotic resistance by preventing diseases in the first place.
- Increasing immunization globally could save an additional 1.5 million people every year.
Social Media
Media: Commercials

Happy person with chronic disease

Talk honestly with your doctor and make a plan that works for you.

“Medications don’t work for people who won’t take them.” - C. Everett Koop

May cause nausea, vomiting, diarrhea, vertigo, hallucinations, seizure, coma, never-ending pain, and death.
Media: Commercials

The fine print

May cause nausea, vomiting, diarrhea, vertigo, hallucinations, seizure, coma, never-ending pain, and death
### Patient Portals

**Clinical Summary from Anytown Indian Health Clinic Clinic Printed 03/07/2013**

**Reason for Visit**
- Head cold.
- Follow-up with studies for breast mass.
- Diabetes check.

**Problems/Encounter Diagnoses**
- Active:
  - Diabetes Type 2 control.
  - Mild Intermediates within.
  - Hypertension.
  - Breast mass.
  - Upper respiratory infection.
  - Asthma.
  - PRs: 2 times in 2 y

**Medications**
- Given during visit:
  - Atorvastatin 40 mg (lost form).
  - Tetracycline HCl.

**Outpatient Medications**
- Clarithromycin 500 mg Oral Tab.
- Metformin Tartrate 25 mg Oral Tab.
- H pylori treatment: H pylori Car.

**Outside Medications**
- Advil 325 mg Oral Tablet, by m.
- Ativan as needed.

**Allergies, Adverse Reactions, Alergics**
- Active allergies:
  - Penicillin – nives.
  - Aspergillus.
  - Codeine – nausea, itching.

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**Personal Health Record**

**PHR Login**
- Username: [Insert]
- Password: [Insert]

**PHR Maintenance**
- *The PHR is updated on Thursday's between 10 am and 11 am.*
- *Please check this information and update it accordingly.*
- *You may not be able to use your PHR during these times.*

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**Patient Portals**

- **Weight** is a good measure of health — and it depends on:
  - **Height and pounds**.
  - **Your last weight was 230 pounds on Sep 21, 2011.**
  - **Your Target weight is 200 pounds.**

**Blood Pressure** is a good measure of health.
- **Your last blood pressure was 120/82 on Oct 01.**

**Allergies**:
- *We have listed all the allergies that we know. If anything is wrong or missing, please let your provider know.*
Definitions

• **Personal Health Record (PHR):** an electronic application through which patients can maintain and manage their health information (and that of others for whom they are authorized) in a private, secure, and confidential environment.

• **Patient Portal:** an internet application that allows patients to access their electronic health records and permits two-way communication between patients and their healthcare providers.
• Developed with the assistance of over 75 subject matter experts.

• Designed to meet the requirements of:
  
  • Meaningful Use / EHR Certification
  
  • Privacy/HIPAA
  
  • Security
  
  • Patient Preferences
PHR Patient Web Portal

- Location: https://phr.ihs.gov/
What is the Personal Health Record?
You can use the Indian Health Service Personal Health Record (PHR) to view your health information. You can track medications, lab results, and other health information from the privacy of your personal computer or mobile device.

Who can use the Personal Health Record?
Only an Indian Health Service patient who registers to use the Personal Health Record and verifies their identity at an Indian Health Service, Tribal, or urban health care facility can view their medical records.

How to Register
To begin using the Personal Health Record, click the link below to create an account and apply to view your Indian Health Service medical record.

Register to use PHR
Step 1 - Create PHR Account

• Create Account
Step 2 – Security Questions

- Security Questions and Answers
Step 3 – Personal Information

- Enter Demographic Information
IHS Privacy Policy

• Read and Accept IHS Privacy Policy
PHR Terms and Conditions

• Read and Accept PHR Terms and Conditions
PHR Registration Confirmation

- Verify Registration Information and Register
Registration Complete

- Registration Complete – The Next Steps

![Indian Health Service Personal Health Record](#)

**The Next Steps**

Before you can see your medical records in PHR, you must verify your identity in person. To do this, please follow the steps below:

**Step 1:** Visit your local Indian Health Service facility.

**Step 2:** Bring one form of identification with you (see examples below).

**Step 3:** Show identification to the PHR Registration Clerk at the Indian Health Service facility.

**Example Forms of Identification:**
- Driver’s License
- Tribal identification card
- Employment Identification Card/ID
- Military identification card
- Passport

If you have questions about this process, please contact your Indian Health Service facility.

[Link to login page](#)
Landing Page
Benefits of Using a PHR
Verify Information

MARY GRANT

My health information from: 2013 DEMO HOSPITAL: Last Updated: June 20, 2014, 13:26:10, CST

Hello Mary Grant

The information on this page is from your IHS medical record at this facility. You can update this information by completing the Request for Correction/Amendment of Protected Health Information (PHI) Form. Note that any changes you request will only be made to your record at this facility and not to any other facilities where you may receive medical care.

About Me

Birthday: March 21, 1987
Age: 27

Race: American Indian or Alaska Native, Asian, White
Ethnicity: Not Hispanic or Latino
Preferred Language: English
Gender: Female

Contact Information

Address: 456 ANYWHERE AVE
PORTLAND, OR 97005

Preferred Email: GRANT.MARY@FREEMAIL.NET
Preferred Phone: Tel: 1-555-555-1000
Preferred Method of Contact: e-mail

Smoking Status

Never smoker (Never Smoked)
MARY GRANT
My health information from: 2013 DEMO HOSPITAL; Last Updated: March 25, 2015, 11:47:43, CST

Upcoming Tests

<table>
<thead>
<tr>
<th>Date</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/8/2015</td>
<td>URINALYSIS-OIT</td>
</tr>
<tr>
<td>6/8/2015</td>
<td>LIPID PANEL - OIT [24331-1]</td>
</tr>
<tr>
<td>6/8/2015</td>
<td>HAIc wieAG</td>
</tr>
<tr>
<td>6/8/2015</td>
<td>GLUCOSE [2339-0]</td>
</tr>
<tr>
<td>5/29/2015</td>
<td>CBC W/AUTO DIFF - OIT [57021-8]</td>
</tr>
</tbody>
</table>

Upcoming Appointments

<table>
<thead>
<tr>
<th>Visit Date and Time</th>
<th>Specialist</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/15/2015</td>
<td>SEVEN. HENRY L MD</td>
<td>96001 1ST AVE, WASHINGTON, DISTRICT OF COLUMBIA 20000</td>
</tr>
<tr>
<td>4/2/2015</td>
<td>SEVEN. HENRY L MD</td>
<td>96001 1ST AVE, WASHINGTON, DISTRICT OF COLUMBIA 20000</td>
</tr>
</tbody>
</table>

Past and Future Referrals

<table>
<thead>
<tr>
<th>Date Time</th>
<th>Specialist</th>
<th>Location and Reason for Referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/2/2015</td>
<td>2013 DEMO CLINIC</td>
<td>201 Demo Ave NE, Albuquerque, NM 87109, (505)555-5555; Depressive disorder</td>
</tr>
<tr>
<td>12/5/2014</td>
<td>JONES.BARNEY</td>
<td>3522 N. 3RD AVENUE, PHOENIX, AZ 85013, 602-266-9463; Hypothyroidism</td>
</tr>
<tr>
<td>6/30/2014</td>
<td>ALBUQUERQUE HOSPITAL</td>
<td>801 Vassar Drive NE, Albuquerque, NM 87106, (505)248-4066; Cardiac chest pain</td>
</tr>
</tbody>
</table>
Manage Medications

The information below contains a list of the medications that you are currently taking. Click on the Medication History tab to view a historical record. Use the My Messages page to send a secure message to request a Medication refill.

### Medications

The information below contains a list of the medications that you are currently taking. Click on the Medication History tab to view a historical record. Use the My Messages page to send a secure message to request a Medication refill.

<table>
<thead>
<tr>
<th>Medication Name</th>
<th>Prescription Number</th>
<th>Dose</th>
<th>Refills</th>
<th>Status</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM BICARBONATE 650MG TAB</td>
<td>7374</td>
<td>650</td>
<td>0</td>
<td>active</td>
<td></td>
</tr>
<tr>
<td>FINASTERIDE 5MG TAB</td>
<td>7371</td>
<td>10</td>
<td>0</td>
<td>active</td>
<td></td>
</tr>
<tr>
<td>FLUOXETINE 20MG CAP*</td>
<td>990</td>
<td>20</td>
<td>3</td>
<td>active</td>
<td></td>
</tr>
</tbody>
</table>

Click once on a medication from the list below for instructions about how to use that medication (if available). Click again to make the drop box disappear, or click on the more info link for more information, such as possible side effects.

**SODIUM BICARBONATE 650MG TAB**
- **Dose**: 650 mg
- **Refills**: 0
- **Status**: Active

**FINASTERIDE 5MG TAB**
- **Dose**: 10 mg
- **Refills**: 0
- **Status**: Active

**FLUOXETINE 20MG CAP**
- **Dose**: 20 mg
- **Refills**: 3
- **Status**: Active
Learn about Health Problems

My Health Issues

Health issues that have been identified during your visit(s) to this facility are listed below.

Click here to get additional information about the health issues displayed.

For more information about your health issues, click on an issue in the list below and then click on the more info link.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>More Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sinus headache</td>
<td>Sinus Headache</td>
<td>06/19/2014</td>
</tr>
<tr>
<td>Cardiac chest pain</td>
<td></td>
<td>05/14/2014</td>
</tr>
<tr>
<td>Diabetic retinopathy</td>
<td>Diabetic retinopathy</td>
<td>04/29/2014</td>
</tr>
<tr>
<td>Neoplasm of accessory sinus</td>
<td></td>
<td>10/02/2012</td>
</tr>
<tr>
<td>Left maxillary sinus mass</td>
<td></td>
<td>10/02/2012</td>
</tr>
<tr>
<td>Sinusitis</td>
<td></td>
<td>09/20/2012</td>
</tr>
</tbody>
</table>

Goals: Walk 15 minutes a day and lose 15 pounds. Plan of Care: Change diet, quit drinking alcohol, exercise daily, and lose weight.
Trusted Sources of Information

- EHR/PHR
  - Problem, medication, or lab code-based request
  - Consumer health information targeted response

- MedlinePlus Connect

Patient portal

Clinical system
Glyburide
pronounced as (gly’ byoor-ide)

Why is this medication prescribed?
How should this medicine be used?
Other uses for this medication
What special precautions should I follow?
What special dietary instructions should I follow?
What should I do if I forget a dose?

Glyburide is used along with diet and exercise to control blood sugar in people whose bodies produce insulin naturally but cannot produce enough insulin to maintain normal blood sugar levels.

Over time, people who have diabetes and high blood sugar levels are at risk for serious complications, such as heart disease, stroke, kidney problems, nerve damage, eye problems, and numbness or tingling in the hands or feet. Lifestyle changes may help prevent or delay problems such as nerve damage, eye problems, or kidney problems. But people with diabetes need to take medicine to control their blood sugar. Glyburide may help lower blood sugar in people whose bodies produce insulin naturally but cannot produce enough insulin to maintain normal blood sugar levels.

Creatinine blood test
The creatinine blood test measures the level of creatinine in the blood. This test is done to see how well your kidneys are working.

Creatinine can also be measured with a urine test.

How the Test is Performed
A blood sample is needed.

How to Prepare for the Test
The health care provider may tell you to temporarily stop taking certain medicines that can affect the test. These medicines include:

- Cimetidine, famotidine, and ranitidine
- Certain antibiotics, such as trimethoprim

Tell your provider about all the medicines you take.

How the Test will Feel

Summary
Diabetes means your blood glucose, or blood sugar, is too high. It is the most common type, and your body does not make enough insulin to control the amount of sugar in your blood. Over time, high blood sugar can cause health problems such as nerve damage, eye problems, or kidney problems.

You have a higher risk of type 2 diabetes if you are older or overweight, or if you have or have had high blood pressure or high cholesterol levels.
Access Info when You Need It

<table>
<thead>
<tr>
<th>Immunization Record</th>
<th>Date and Time</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tdap</td>
<td>06/25/2010, 12:04 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>HEP A, ADULT</td>
<td>03/28/2005, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>IPV</td>
<td>09/14/2004, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>HEP A, ADULT</td>
<td>09/14/2004, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>POLIO, NOS</td>
<td>08/14/2004, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>TD (ADULT)</td>
<td>03/31/2000, 09 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>HEP B, ADULT</td>
<td>02/27/1997, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>HEP B, ADULT</td>
<td>01/14/1992, 12, EST</td>
<td>Completed</td>
</tr>
<tr>
<td>MMR</td>
<td>05/17/1983, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>POLIO, NOS</td>
<td>04/01/1976, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>POLIO, NOS</td>
<td>11/01/1975, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>POLIO, NOS</td>
<td>01/14/1972, 12, EST</td>
<td>Completed</td>
</tr>
<tr>
<td>MMR</td>
<td>01/14/1972, 12, EST</td>
<td>Completed</td>
</tr>
<tr>
<td>POLIO, NOS</td>
<td>07/09/1971, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>POLIO, NOS</td>
<td>05/28/1971, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>POLIO, NOS</td>
<td>04/23/1971, 12 -0400</td>
<td>Completed</td>
</tr>
<tr>
<td>INFLUENZA [TIV], SEASONAL, INJ</td>
<td>Due</td>
<td></td>
</tr>
</tbody>
</table>
## Hospital Admissions

<table>
<thead>
<tr>
<th>Admission Date</th>
<th>Discharge Date</th>
<th>Admission Diagnosis</th>
<th>Discharge Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/14/2014</td>
<td>05/16/2014</td>
<td>CHEST PAIN NOS</td>
<td>CHEST PAIN NOS</td>
</tr>
</tbody>
</table>

### Discharge Instructions:

You were admitted to Local Community Hospital on 05/14/2014 with chest pain and a diagnosis of Heart Disease. You were discharged from Local Community Hospital on 05/16/2014 with instructions to follow up with Dr. Rodriguez. Should you have any questions prior to discharge, please contact a member of your healthcare team. If you have left the hospital and have any questions, please contact your primary care physician.

Instructions:
1. No heavy lifting, straining, or nose blowing
2. If you experience any of the following symptoms, call your primary care physician or return to the Emergency Room:
   - Chest Pain
   - Shortness of breath
   - Dizziness or light-headedness
   - Intractable nausea or vomiting
   - High fever
   - Uncontrollable bleeding
   - Pain or redness at the site of any previous intravenous catheter
   - Any other unusual symptoms
3. Schedule a follow up appointment with your primary care physician in one week.
Blue Button
Effective Communication

- The Joint Commission acknowledges communication breakdowns, between care providers and between providers and their patients is the crux of nearly 3,000 events reported to the Joint Commission and the high-ranking as an underlying medical malpractice cause. Effective communication is the foundation of patient safety and communication must be improved to clarify patient’s literacy levels and their personal expectations.

Promote Health Communication

The study and use of communication practices to inform and influence individual decisions that enhance health.
Secure Messaging (DIRECT)
Telehealth Visits

• 52% of Kaiser appointments were conducted online
Access to Services

- Appointment scheduling
- Medication refill requests
Remote Monitoring
Health IT