Health Record Banks: New Approaches to Consumer Controlled Health Information

MEBI 590

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Patient-Focused Health Care

- "Enable the transformation to higher quality, more cost- efficient, patient-focused health care through electronic health information access and use by care providers, and by patients and their designees."

Federal Health IT Strategic Plan (ONC): 2008-2012

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Solution

Combines a newly developed INHS HRB as a data source with Google Health as the consumer-friendly front end.

Focus

Initial data set is medications and allergies.

Rationale

Relatively quick method to test the HRB model using a variety of external data sources and a diverse consumer/physician population.

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INHS HRB Pilot Partners

- **Google Health**
  - Name Recognition, Ubiquitous Use for Internet Search

- **Rockwood Clinic**
  - Multi-specialty Clinic, > 190 providers

- **Physicians Clinic of Spokane**
  - Internal Medicine and Specialists >20 providers

- **Heart Clinics Northwest**
  - Single Specialty (Cardiology) Physician Group > 30 Providers

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Two Patient Populations

1. Associated with independent physician practices which have a referral relationship; high percentage of older adults and individuals with cardiac conditions.

2. Associated with a large multispecialty clinic system which has a system-wide EMR; representative of general population.

Provider and Consumer Advisory Committees

–   Providing guidance on policies and practices, marketing, enrollment and education.

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Google Health

- User Interface
  - View
  - Import
  - Annotate
  - Delete
  - Print
- Mechanism to import a variety of health data from external sources – Retail Pharmacies, Reference Laboratories
- Health information web searches

INHS HRB
Overview and Architecture

INHS HRB

- One of the imports available from Google Health

- Consent management, authentication, privacy and security through the INHS HRB

- A new and separate database on the INHS system specifically designed for the HRB

- Receives data from physician clinics, which contain clinical information across the continuum of care.

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INHS HRB

Hospitals

Physician Clinics

Google Health BETA

| Rockwood Clinic |
| Physicians Clinic of Spokane |
| Heart Clinics Northwest |

- Patient Authentication
- Consent Management
- Privacy & Security
- Authorization for Encounters

INHS HRB

From Google Health, the user is routed to the 1HealthRecordBank login page.

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User Login

1HealthRecord allows you to securely link your medical record to your Google Health Account to better manage your health information.

Existing Users:

* Email [   ]

* Password [   ]

Forgot your password?

New Users:

Not registered? **Register Here!**

Registration with 1HealthRecord is limited to individuals who are 18 years of age and over.

Log In | Clear

Footnotes:
Email: INHS network users can enter a network username instead of an email address.
Password: INHS network users can enter a corresponding network password.

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VeriSign Secured
VERIFY»

New users go to the registration page.

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Login

Registration

* Registration PIN		Given to you by your care provider I do not have a PIN
* Repeat Registration PIN		
* Email		
* Repeat Email		
* Password		(8 - 25 characters including 2 numbers)
* Repeat Password		(8 - 25 characters including 2 numbers)
* First Name		Must match your patient record
* Last Name		Must match your patient record
* Gender	○ Male ○ Female	Must match your patient record
* Date of Birth		(mm/dd/yyyy) Must match your patient record
* Last 4 Digits of SSN		Must match your patient record

☐ By checking the checkbox to the left you acknowledge that you have read, understand and accept the Terms of Use and Privacy Protection.

Register | Clear | Back to Login

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VeriSign Secured

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Home Profile **Privacy**

Manage Privacy

1HealthRecord will continue to periodically and automatically send data to your Google Health Account based on any updates to your medical record within your physician's office and these privacy settings.

Select all medical record data providers and categories that you authorize 1HealthRecord to send to your Google Health Account.

Data Providers: ☐ All   ⊕ **Add Data Provider**

⊟ **Requested Data Providers:** 1 requests found

| Provider	Status	Updated	Req Details
Heart Clinics Northwest	Pending Clinic Approval	7/14/2009 3:43:05 PM	Male 12/12/1934 1199 132 4567

Data Categories: ☑ All

☑ Allergies

☑ Medications

You may be directed to Google Health to confirm linking to 1HealthRecord. Login may be required on Google Health.

Authorize & Save | Reset

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VeriSign Secured

Providers get basic information on the patient requests and can filter or sort the requests.

Search Results: 6 patient requests found

	Provider	Status	Type	Req First	Req Last	Req Details	User Details
✓ Approve	✗ Deny	Heart Clinics Northwest	Pending Clinic Approval	Existing User - Add Data Provider	Kadie	Kopf-Nay	Female 2/7/1979 More Info...	Female 2/7/1979 Kadie Nay
✓ Approve	✗ Deny	Heart Clinics Northwest	Pending Clinic Approval	Existing User - Add Data Provider	Tracey	Hart	Female 5/10/1980 4321 More Info...	Female 5/10/1980 4321 Tracey Hart
✓ Approve	✗ Deny	Heart Clinics Northwest	Pending Clinic Approval	New Registration - Add Data Provider	john	smith	Male 12/12/1970 0099 More Info...	Male 12/12/1970 0099 john smith
✓ Approve	✗ Deny	Physicians Clinic of Spokane	Pending Clinic Approval	Existing User - Add Data Provider	Tracey	Hart	Female 5/10/1980 4321 More Info...	Female 5/10/1980 4321 Tracey Hart
✓ Approve	✗ Deny	Physicians Clinic of Spokane	Pending Clinic Approval	New Registration - Add Data Provider	Tom	Clark	Male 1/1/1958 1234 More Info...	Male 1/1/1958 1234 Tom Clark

1 2

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🏠 Home   👤 Profile   💬 Patient Requests
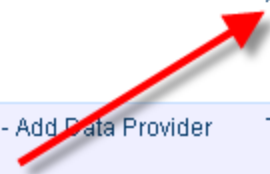
✓/✗ Approve or Deny Patient Request

User & Patient Request Details:

User Details	
Email:	john.k.smith@msn.com
Name:	john smith
Gender:	Male
Date of Birth:	12/12/1970
Last 4 Digits of SSN:	0099

Request Details	
Data Provider:	Heart Clinics Northwest
Name:	john smith
Gender:	Male
Date of Birth:	12/12/1970
Last 4 Digits of SSN:	0099
Registration PIN:	132 123456 789012 12345

Justification:

Reason for Decision

[   ]

| **Approve Request** | or | **Deny Request** | | Reset | Back to Patient Requests |

Key Stages of Development

- Formation of Physician and Consumer Advisory Committees

- Reaching agreement on registration and authentication processes

- Developing technical processes for extracting data from EMRs

- Defining privacy and security policies and documentation

- Conducting security audits

- Testing systems and training clinic staff

Project Status

- System live in March, 2009
- Initial enrollment focused on INHS and clinic staff
  - Dedicated staff focused on enrollment
  - Toll-free number to answer questions and assist with enrollment
  - Periodic visits to participating physician offices to assist with enrollment
- Marketing
  - Reports in local media
  - Materials placed in clinics
  - Letters mailed to clinic patients

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Consumer Engagement

- ## Marketing Approaches

  - ### Broad Community Campaign
    - Advertising, web, media coverage, etc.

  - ### Direct marketing through physician offices
    - Part of the office visit

  - ### Enrollment "fairs"
    - Well-advertised opportunities for people to get information and sign up
    - In the community
    - In the participating physician offices

What Enrollees "Look Like"

% of female enrollees	67.6%
% of 26-35 YO	7.8%
36-45 YO	13.7%
46-55 YO	27.5%
56-65 YO	33.30%
66 and Up	15.7%

What Enrollees are Telling Us

How they heard about it – physician office or communication	78.2%
% of people that said the enrollment process was easy or very easy	91.1%
% of respondents that requested the entire enrollment process be done online (a few have requested "face-to-face" enrollment process)	96%
% of respondents who were the manager of their health	100.00%

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Clinic Perspective – Goals of HRB Participation

- Offer patients electronic access to the health information contained in their electronic health record

- Promote patient engagement in their health care

- Participate in a community pilot of health information exchange

- Work toward the meaningful use requirements for electronic communication with patients

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Clinic Perspective – Experience with HRB

- This type of project is challenging to implement in a large health care organization

- Outreach to engage patients is difficult

- Providers need to understand the goals and value of personal health records

- Some patients expressed concerns about privacy/security of their information

- Some patients were disappointed that a greater amount of their information wasn't available online

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Key Issues

- Authentication and registration process
  - Clinics needed to be comfortable with the process
  - Decision to mirror process and documents used for release of paper records
  - Decision to give clinics final control over releasing information from the EMR to Google Health

- Security audit
  - Needed to assure that project was not creating privacy or security risks from hackers
  - Independent consulting firm engaged to test both the marketing and registration web sites
  - Minor vulnerabilities found and corrected before Go Live

Key Issues

- Patient control over health information
  - Physicians expressed concern over relying on information that may have been modified by the patient
  - Google Health shows source of data and whether it has been revised

- Clinic liability
  - Clinics expressed concern over potential liability issues should health information be misused
  - Recognized that this concern is present whether information is electronic or on paper
  - All documents clearly state limits of clinics' responsibility

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Key Issues

- Differences in how EMR is used
    - All three participating clinics are using same EMR, but there are differences between clinics (and between physicians) in how information is entered into EMR
    - How data is captured in the EMR influences the interface to Google Health and also potentially how the data is displayed to the patient
    - This issue becomes more significant as the project moves beyond medications and allergies to other data elements
    - The knowledge that patients may be seeing the information may influence what physicians record in the EMR

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Key Issues

- Changes in Workflow
  - Most health care organizations ask patients a series of common questions upon registration for an encounter
  - How can information contained in a health record bank be incorporated into this workflow?
  - Front office staff need to be trained in using this information
  - Health care organizations need to be willing to accept information from a health record bank

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Key Issues

- Consumer Engagement
  - System has to be actively and aggressively promoted in order to get consumers to sign on
  - Some consumers have privacy concerns about storing their personal health information on line
  - How much information is enough to create value? Medications and allergies do not seem sufficient
  - Consumer education is critical -- many people don't understand why it is important to track their own health information

Questions?

Thank You!

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