

Iowa Health Information Network (IHIN)



A collaboration to
provide better information
for better care.

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Executive Director, Iowa e-Health**

Integrated Healthcare Models and Multi-Payer Delivery Systems Study Committee
November 20, 2013



Three main IHN Services

1. Directed Exchange

- From Provider to Provider for referral
- From Provider to Registry for reporting
- Between Provider & Patient for PHR

2. Query-based Exchange

- Snapshot of the patient's history
- Continuity of Care Document (CCD)
- Demographics, Allergies, Medications, Results, Immunization History, Family History, Procedures, etc.

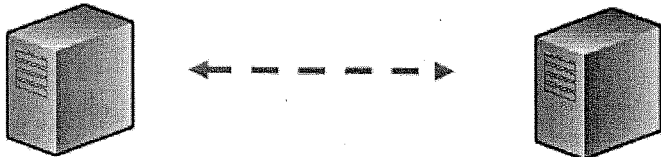
3. State Reporting Exchange

1. Directed Exchange

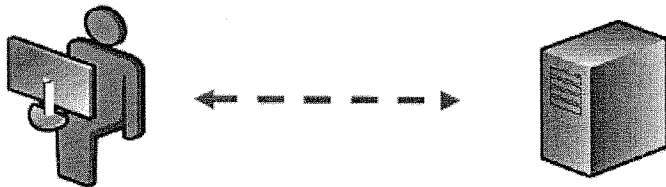
Communication Pathways



Between People



Between Machines



Between People & Machines

onc-puttingl-pptsubpage2.jpg

Communication Content

I've attached the study of Mr. Author. Thanks for seeing him.

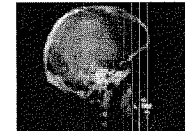


Readable by People

```
EVN|A28|20060501140008|||000338475^Author^Arthur^^^^ ^Regional
MPI&2.16.840.1.113883.19.201&ISO^L|20060501140008<cr>
PID|||000197245^^NationalPN&2.16.840.1.113883.19.3&ISO^PN~4532^^
```

Readable by Machines

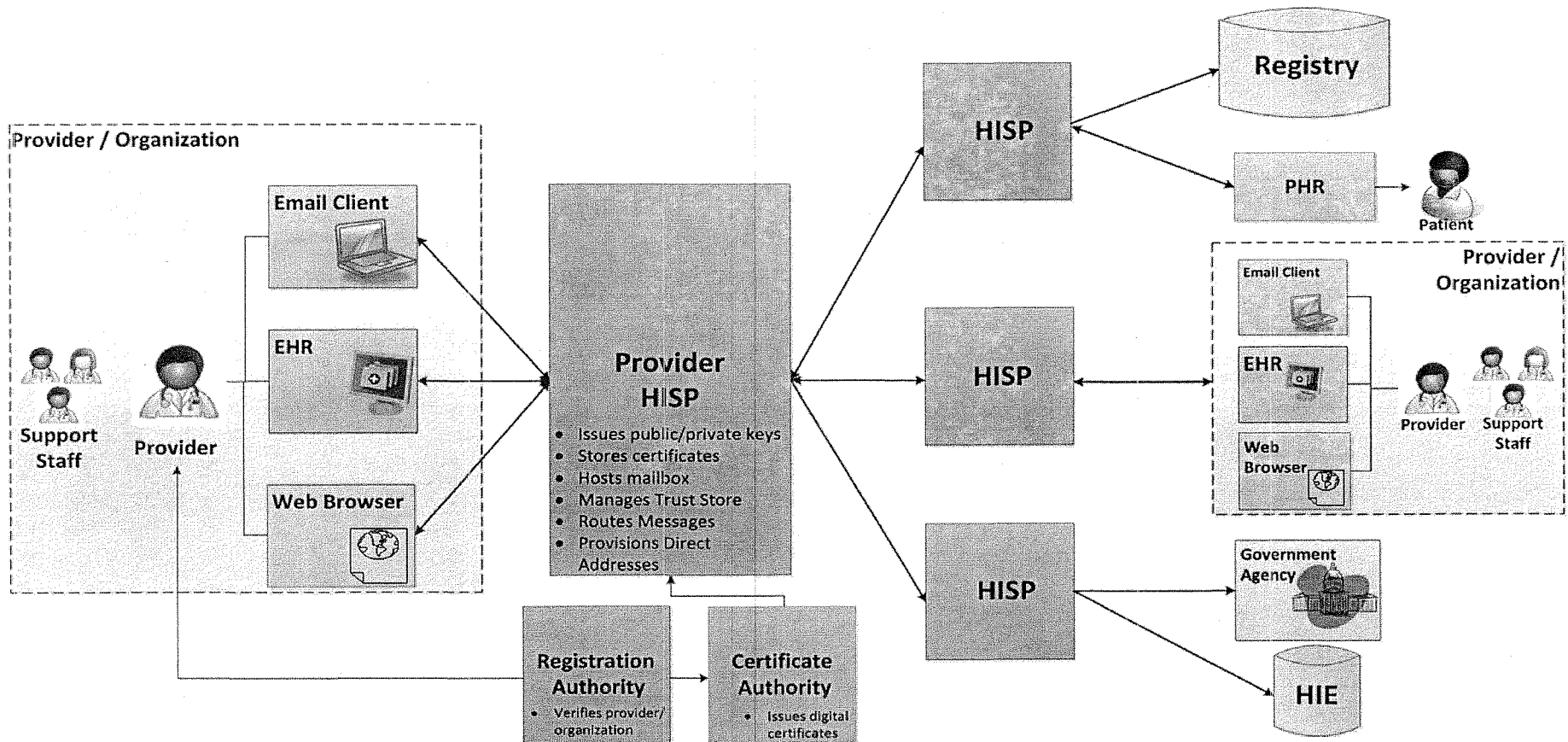
I've attached an x-ray and electronic record for Mr. Author.



```
EVN|A28|20060501140008|||000338
475^Author^Arthur^^^^
^RegionalMPI&2.16.840.1.113883.19.
201&ISO^L|20060501140008<cr>
```

Readable by People and/or Machines

Directed Exchange – cont.



- **Provider vs. Provider Organization:** Certificates either associated to the hostname part of an address (organizational certificates) @direct.practice.com or to a specific user bob@direct.practice.com
- **Registration Authority:** Collects information for the purpose of verifying the identity of an individual or organization (i.e., identity proofing)

- **Certificate Authority:** Digitally signs certificate requests from the Registration Authority and issues digital certificate that ties a public key to the gathered attributes
- **Digital Certificates:** Electronic document that certifies that the subject (person or entity) has been issued a pair of encryption keys that are related in such a way that if one key is used to encrypt something (e.g., file, message, data stream), it can be decrypted only by someone holding the other key

2. Query Based Exchange

- Queries the IHN for all documents for a given patient
- Those documents are typically Clinical Document Architecture (CDA) summary documents
- Where patients have closer relationships with care teams, new HIE alerting functionality is being tested which notifies providers if triggers are met.

3. State Reporting

Automated support for receiving structured data to the following systems:

- Iowa Decease Surveillance System (IDSS)
- Immunization Registry Information System (IRIS)
- State Cancer Registry
- IME Health Home payment program

Two other important Exchange elements

- Patient access to their own information via Patient Portal and Personal Health Record (PHR)
 - Better ownership and understanding of their own health. Integrated with consumer apps and devices which collect data focused on wellness & prevention.
 - Numerous states are investing in establishing PHRs for specific populations or statewide. KY, KS, RI, etc.
- Increased data elements for many Quality Measures now established in the EHRs, shared through HIEs to data repositories such as a Data Warehouse.



Member Access Center [Edit]



Edit Member Summary Layout

Change what sections appear on this members summary screen.



Member Review

Go through a step by step medical review for Test.



Access Privileges

Manage access to your PHR information.



Print Summary

View and print a summary of this member.



Share my PHR information with others

Share your PHR information with your physicians and other providers.



Print NMC911 Card

View and print an NMC911.com card for this member.



Import data from pickup code

Click here to use a pickup code from a provider or other institution to import documents into your profile.



Test's Registration Information [Edit]



Test Patient
123 1st Street
Des Moines, IA 50309
Age: 63, Birthdate: 01-01-1950

CLICK TO ADD PHOTO



cc:Me

Populate your PHR with cc:Me

cc:Me makes it easy to get medical information from doctors and hospitals into your personal health record.



Insurance [Edit]



Current Medications [Edit]

- None Entered

Previously taken medications:

- None entered.



Current Illnesses [Edit] [Conditions R]

- None entered

Past Illnesses [Edit]

- None entered



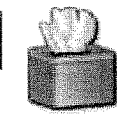
Surgeries/Procedures [Edit]

- No Procedure History



Immunizations [Edit]

- None.



Allergies [Edit]

- No allergies entered



Family Medical History [Edit]

- No family history entered



Social History [Edit]

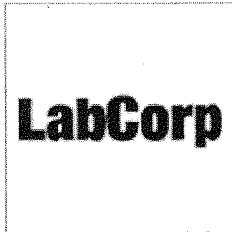
Marital Status: Married

Apps (127)

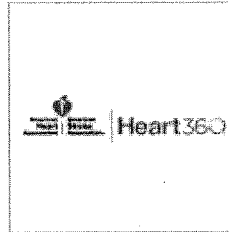
Devices (215)

United States

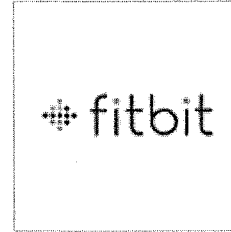
☼ Recommended for Kim (WI)



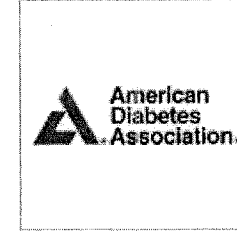
Laboratory Corporation of America®
LEARN MORE



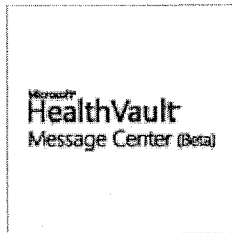
Heart360 Cardiovascular Wellness Center
LEARN MORE



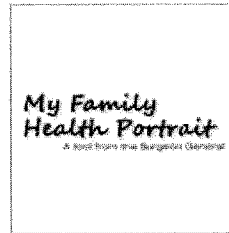
Fitbit
LEARN MORE



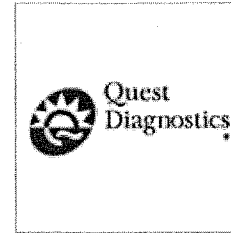
Diabetes 24/7
LEARN MORE



Microsoft HealthVault Message Center
LEARN MORE



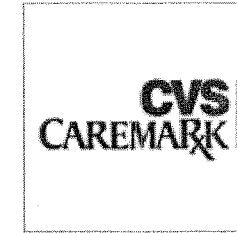
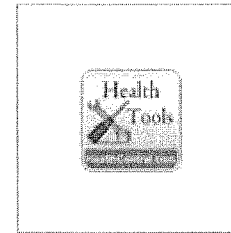
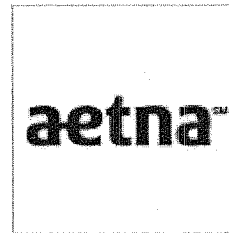
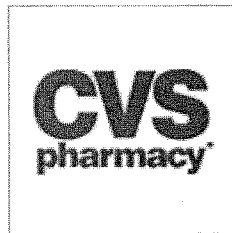
My Family Health Portrait
LEARN MORE



Import your lab test results
LEARN MORE



MaxEmail
LEARN MORE

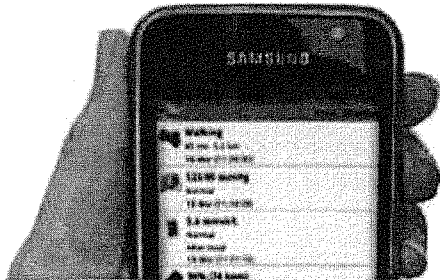


Watch Video

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Purchase full version

Personalize



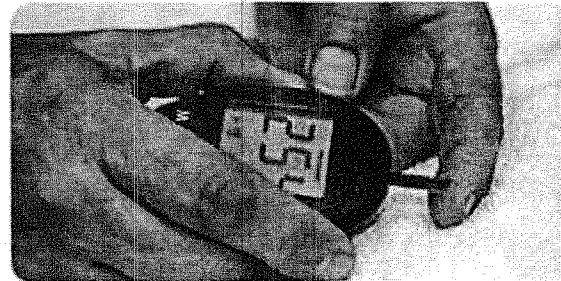
Set **instructions** and **voice feedback** in your own language (English, Mandarin, Spanish, Portuguese, French, Dutch, German, Italian, Brazilian, Russian, Korean, Japanese and more scheduled).

Adjust **thresholds** and targets for each sensor to suit your particular condition.

Get **reminded** to take your measurements.

Manage the health and fitness of **several persons** in one application.

Track



Choose popular **Bluetooth sensors** (FDA/CE approved) to collect your biometric measurements or enter **manually** measurements, targets and log information.

Track your **Exercises** using build-in GPS and Bluetooth sensors for vital signs monitoring.

Get **real-time** feedback after each measurement.

Keep **track** of your progress on easy to read graphs.

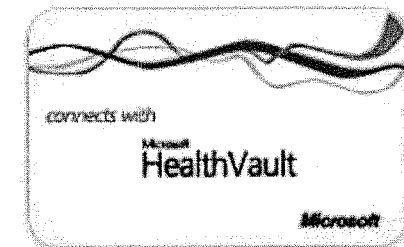
Share



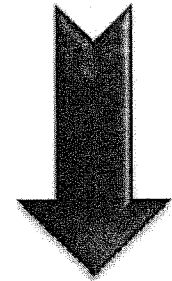
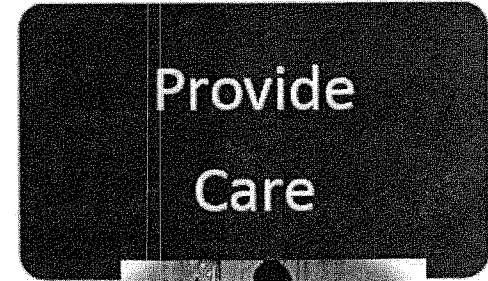
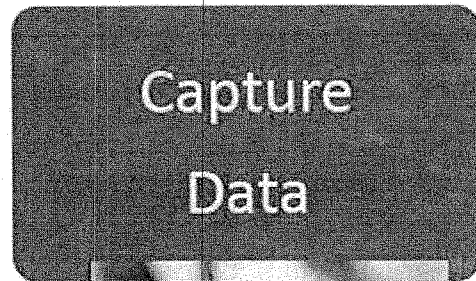
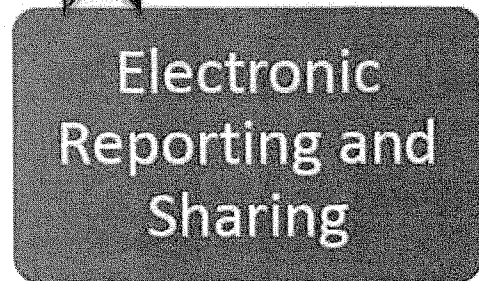
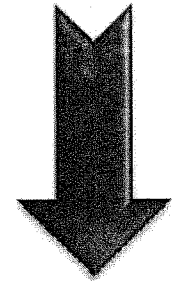
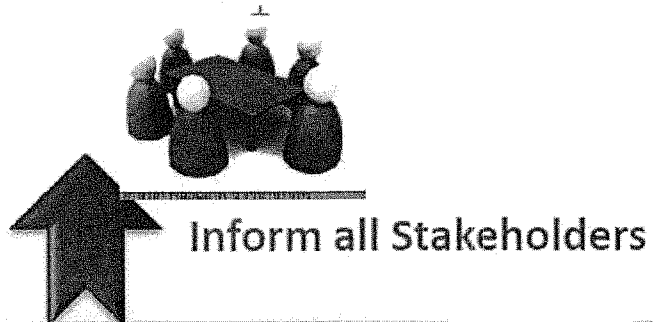
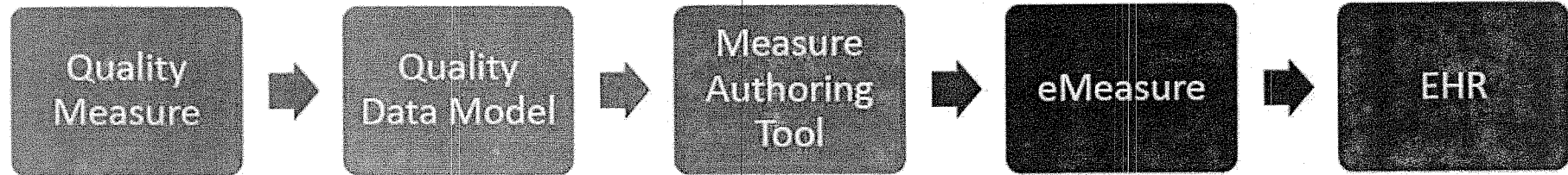
Manage the **health** and **fitness** of people you care for on your phone.

Upload your biometric measurements to **Microsoft® HealthVault®** for more detailed graphs and report creation.

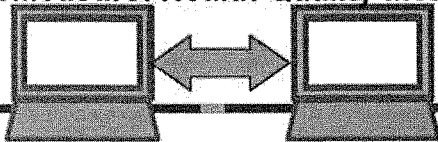
Share the information collected with your health professional, friends or carer.



Quality Measures in the Clinical Realm



eMeasure: Health Quality Measure Format



Thank You

Kim Norby

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Top facts to know about the Iowa Health Information Network (IHIN):

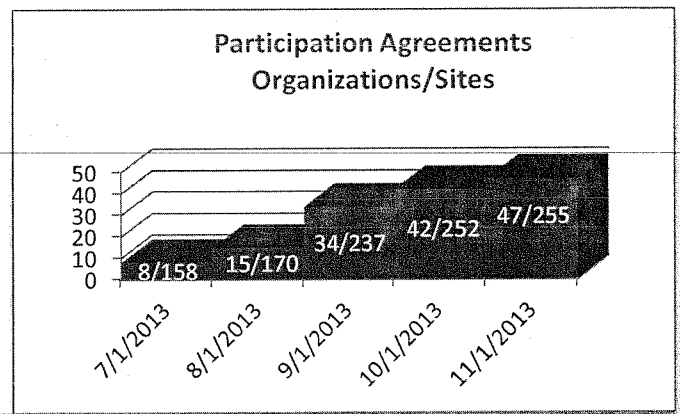
- 1.) The IHIN is based on emerging national standards
 - 2.) These simplify the exchange and collection of health data
 - 3.) Mass participation is the key to its value and therefore success
 - 4.) Encourages communication directly to/with the patient
- IHIN Services:** Directed Exchange, Query Based Exchange, State Reporting

Key considerations for the future:

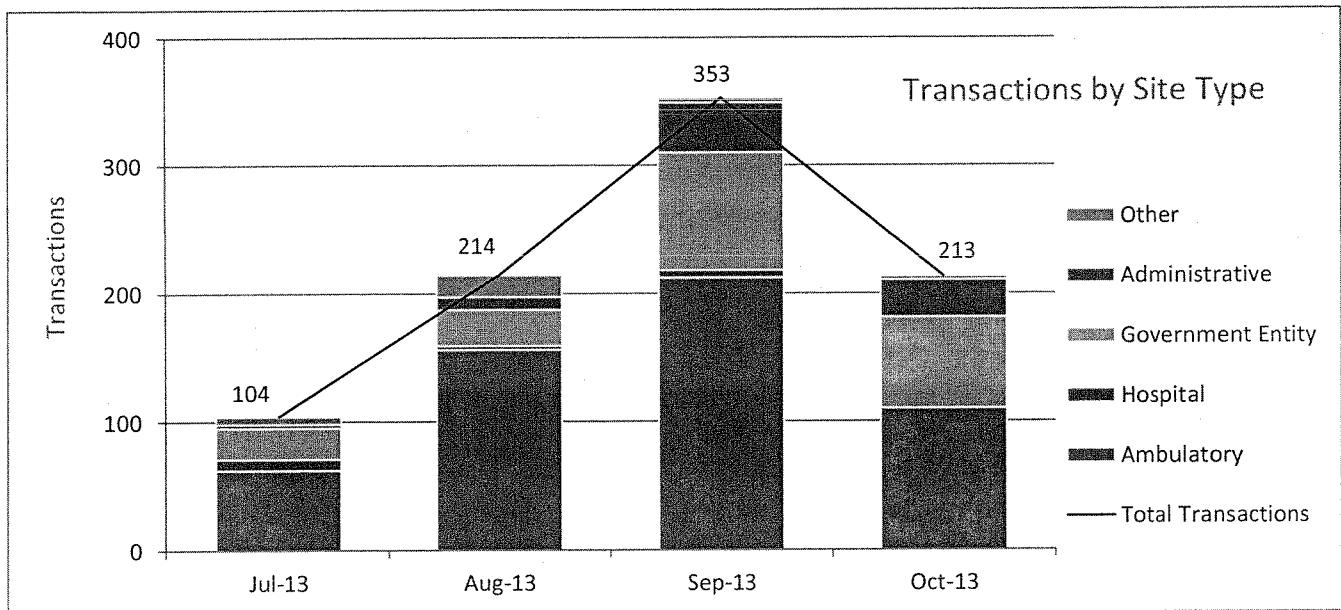
- 1.) Iowa's HIE does not have a central repository however many smaller repositories or registries do exist.
- 2.) Direct messaging establishes the next generation of e-referral replacing the fax for sending data with the referral and receiving structured data back as care steps are completed.
- 3.) Patients are able to receive electronic copies of all of their healthcare data.
- 4.) A Medical Home provider has access to more patient information using Query Based Exchange.
- 5.) Triggers and alerts become possible across disparate organizations and at the time of care.

IHIN Adoption:

IHIN adoption is just beginning and as of November 1, a total of 47 healthcare organizations with 255 unique sites have signed participation agreements on file with Iowa e-Health. Currently participating organizations represent \$411k in annual revenues however self-sustainability of the IHIN is not projected until 2016 – 2017. See www.iowahealth.org for a list of current subscribers



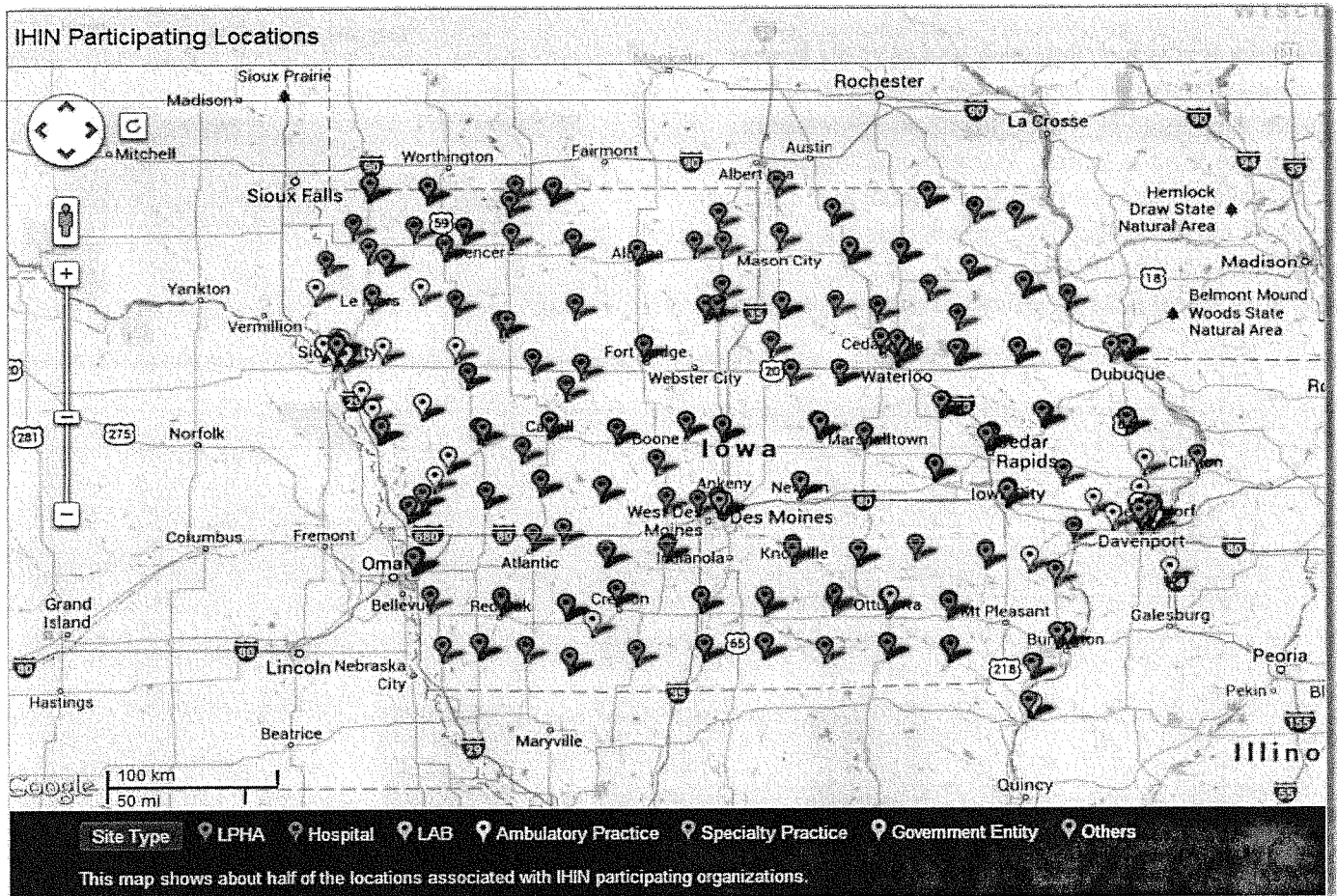
Which sites are using IHIN Direct Secure Messaging?



Who are the top users by type utilizing the IHIN?

Registered Nurses are currently the largest group with 113 users, and when combined with Licensed Practical Nurses and Advanced Registered Nurse Practitioners, make up 27% of the total user number and 18% of the transactions this fiscal year. IME operations has begun supporting and requiring the use of Direct messaging.

Users	User Profession Role Code	Transactions SFY 14
54	Iowa Medicaid - All User Types	220
91	Office Support Staff	195
45	Billing Office Staff	123
37	Advanced Registered Nurse Practitioner	104
113	Registered Nurse	44
51	Clinical Support Staff	23
27	Certified Medical Assistant	12
36	Licensed Practical Nurse	8
43	Doctor of Medicine	4
3	Radiology Technician	4



IMPORTANT: It is critical that healthcare organizations of all types begin participating over the next 12 – 24 months. All dealing with personally identifiable health information in any way should be encouraged to utilize the Direct messaging.