



Iowa Research Online
The University of Iowa's Institutional Repository

Health Policy

11-1-2010

Health Information Technology use in Iowa Radiology Facilities: A Study for Iowa e-Health

Damiano C. Peter
University of Iowa

Ki Park
University of Iowa

Kristi Law
University of Iowa

Copyright © 2010 Public Policy Center, The University of Iowa

Hosted by Iowa Research Online. For more information please contact: lib-ir@uiowa.edu.

November 2010

Health Information Technology use in Iowa Radiology Facilities

A study for Iowa e-Health

Background

Iowa e-Health is a public and private collaboration that seeks to improve health care quality, safety and efficiency through the use of health information technology (HIT). This includes electronic health records (EHRs) to collect and store patient health information, and a statewide health information exchange (HIE) to share health records across the boundaries of individual care settings.

To better understand HIT use by a variety of health care provider types, Iowa e-Health, in collaboration with the University of Iowa Public Policy Center (UI PPC), conducted an assessment of HIT issues

facing health care providers in Iowa.

The current effort included five health provider settings: 1) home health, 2) long-term care, 3) pharmacies, 4) laboratories, and 5) radiology centers. This Brief presents information about the Radiology Facility Assessment.

The assessments gathered information about a range of HIT topics including: 1) provider health IT capabilities and preparedness to participate in a statewide HIE; 2) preferences for types of high value clinical data exchange or HIE services; and 3) benefits and barriers to HIT adoption.

Less than half of radiology facilities sent either reports or images to other providers electronically

Methodology

An on-line survey assessment was used to evaluate the use of HIT in Iowa radiology facilities. The survey instrument was developed in collaboration with radiology content experts from the e-Health Assessment Subcommittee then pilot tested with several Iowa radiology facilities. A comprehensive list of Iowa radiology facilities was compiled based on lists from the IDAS and American College of Radiologists. On-line resources were then used to identify contact information for the radiology facilities and to obtain the email address for the person most knowledgeable about HIT in the facility.

The on-line survey process itself included:

- 1) An e-vite from IDPH Director Tom Newton requesting participation in the assessment survey (including a link to the website for completion of the survey),

- 2) A follow-up email from UI PPC requesting participation

- 3) Telephone follow-up calls to non-respondents from the UI Social Science Research Center to identify that the email reached the most appropriate person,

- 4) Closing of the survey process after about 6 weeks. The data were then cleaned and the analyses began

Participation Rates

Of the 125 radiology facilities identified in Iowa, 34 completed a usable survey, for a 27% participation rate. While the participating facilities were well distributed around the state, they are likely to be biased toward those more interested in the topic of HIT (not necessarily more likely to have electronic systems). Thus, we suggest the results from this assessment be used to evaluate potential trends rather than focusing on the exact percentages for any particular questions.



Storage of new reports by radiology facilities

Radiology facilities could store their reports in multiple ways: using a Radiology Information System (RIS), an Electronic Health Record (EHR), a Hospital Information System (HIS) and/or a Picture Archiving and Communication Systems (PACS). The system used for storing new reports is shown in Table 1. Some facilities used multiple systems.

Table 1. System used for storing new reports

| | Frequency | Percent |
|------|-----------|---------|
| RIS | 15 | 50% |
| HER | 15 | 50% |
| HIS | 23 | 77% |
| PACS | 26 | 87% |

Radiology facilities store information in multiple ways, including RIS, EHR, HIS and/or PACS

Sending reports to providers by radiology facilities

The most common way for radiology facilities to send reports to providers is via fax. Less than half sent reports electronically (Table 2). 87% of those that did send them electronically used HL7.

Table 2. Format for sending radiology reports to providers

| | Frequency | Percent |
|--|-----------|---------|
| Paper copy | 17 | 50% |
| Fax | 28 | 82% |
| Electronic report sent to provider to be downloaded into EHR, HIS or RIS | 15 | 44% |
| Electronic report available through web-based portal | 12 | 35% |
| Other | 0 | — |

Radiology results, images and orders, along with lab results and eligibility verification were among the types of information deemed most valuable for sharing by radiology facilities

Sending images to providers by radiology facilities

The most common way for radiology facilities to send images to providers is either through a CD/external media or a physician portal. Physicians were the most frequent provider to whom they were sending images (Table 3).

Table 3. Format for sending radiology images to providers

| | Frequency | Percent |
|----------------------------------|-----------|---------|
| Hard copy or print film/images | 3 | 20% |
| CD or other external media | 14 | 93% |
| Electronically inserted into EHR | 1 | 7% |
| Physician portal | 12 | 80% |
| Other | 0 | — |

Sending and receiving radiology orders electronically

Very few radiology facilities received orders electronically from providers

A few more received reports/images from providers electronically:

- Labs
- Physicians
- Hospitals

Three of seven radiology facilities without a RIS/EHR were planning to invest in one in the next two years

Perceived benefits of electronic systems

Storing and sharing reports:

- Timely availability of test data
- Less staff time to process test orders
- Accuracy of test orders and results
- Facility efficiency

Storing and sharing images:

- Timely availability of test data
- Less staff time to process test orders
- Accuracy of test orders and results
- Facility efficiency

Most valuable information for sharing electronically:

- Radiology results
- Radiology images
- Radiology image orders
- Clinical history
- Allergies or contraindications
- Lab results
- Eligibility verification

Future uses of a HIT in radiology facilities

Among those without a RIS/EHR

- 3 of the 7 without a RIS/EHR were planning to invest in one in the next two years
- The main concerns were:
 - Initial cost of installation
 - Ongoing operational cost

Among those with an EHR

- 2/3rds were 'very likely' to invest in their system in next two years
 - Cost was the main concern

Barriers to installing a electronic system included initial cost of installation and ongoing operational costs

HIE and Iowa radiology facilities

Interest in participating in a Health Information Exchange (HIE)

- 88% were *very interested* (47%) or *somewhat interested* (41%) in participating in a HIE (Table 4)

Table 4. Radiology facilities' interest in participating in a HIE

| | Frequency | Valid percent |
|-----------------------|-----------|---------------|
| Very interested | 16 | 47% |
| Somewhat interested | 14 | 41% |
| Not at all interested | 2 | 6% |
| Don't know yet | 2 | 6% |
| Total | 34 | 100% |

Major concerns with participating in a HIE

- Initial cost of product/installation
- Potential liability
- Client privacy

Summary

Text here

The e-Health Report

The e-Health Report is the result of collaboration between the University of Iowa Public Policy Center, the Iowa Medicaid Enterprise, and the Iowa e-Health Executive Committee & Advisory Council.

For more information, contact:

Iowa e-Health

Email: ehealth@idph.state.ia.us

Website: www.iowaehHealth.org

Toll-Free Number: 866-924-4636

Iowa Department of Public Health, Office of Health IT

About these policy briefs

The University of Iowa's Public Policy Center's **Policy Briefs** are designed to provide our research findings in a succinct and accessible format. The nature of the Briefs does not allow for extensive explanation regarding the methods used in our research. More information about specific methodologies used in any particular study can be obtained by contacting researchers at the Center and/or by downloading reports from our website. We hope you find these policy briefs helpful to your discourse on some of the most challenging societal issues.

About the Public Policy Center

The University of Iowa's Public Policy Center's mission is to provide policymakers with information that can make our lives and communities thrive in sustainable ways through academic research. The vibrant Center that brings together researchers from a variety of fields and disciplines to impact policy at the local, state and national level through sound academic scholarship.

For more information on this topic contact:

Peter C. Damiano
 Director
 University of Iowa Public Policy Center
 209 South Quadrangle
 Iowa City, IA 52242
peter-damiano@uiowa.edu
 Phone: 319.335.6800
 Fax: 319.335.6801

Other research reports are available for download on our Website:

<http://ppc.uiowa.edu>