



Report to
Idaho Health Quality Planning
Commission

June, 2014

Background

The Idaho Health Data Exchange (IHDE) is a 501(c)(6) not for profit corporation, charged with the development and implementation of a statewide health information exchange in Idaho. Governor C.L. "Butch" Otter identified IHDE as the State designated entity to receive funds under Section 3013 of ARRA.

The IHDE is the work product of Idaho's Health Quality Planning Commission (HQPC), which was created by Idaho's Legislature in 2006. The HQPC was tasked with *promoting improved quality of care and health outcomes through investment in health information technology in the state of Idaho*. The HQPC was tasked with the creation of a plan for statewide health information exchange (HIE) in Idaho to facilitate improved quality and coordination of care by making more complete patient information available at the point of care. It was the priority of the HQPC to build a framework for consistent, secure, statewide HIE – within the broader national context – to rapidly build capacity for connectivity between and among health care providers.

Members of the newly formed HQPC included three major hospitals, a critical access hospital, a federally qualified health care center, physicians, a consumer, employer representation, a pharmacist and payers. The HQPC worked over a two year period to develop a comprehensive plan. As part of the planning process, the HQPC identified obstacles to the success of a statewide system including: developing a sustainable business model, defining the value that accrues to users, addressing privacy and confidentiality issues, accurately linking patient data and addressing organizational and governance issues.

The HQPC's plan was released for public comment and the final plan submitted to Governor Otter in June 2008. IHDE was established to develop and implement the plan. IHDE is an independent, legally established entity, who is responsible to a Board of Directors whose members come from a broad base of stakeholders that will help ensure that its primary commitment is to the common good. The Idaho Health Data Exchange model offers significant short and long-term benefits to serve the public interest. The IHDE moves toward the HHS goal of developing a nationwide interoperable health information technology infrastructure to support significant and measurable improvements in population health through a transformed health care delivery system.

Since May, 2011, IHDE board membership has changed its composition according to a pre-arranged design by the original board membership. Nearly half of the original board members have served their terms and newly elected board members continue a level of voluntary support necessary for IHDE's future success. The Board includes representation from both the public and private sectors, including health care providers, hospitals, public health and payers. The IHDE has developed articles of incorporation and bylaws that govern the business of the IHDE. The day-to-day operations of the Corporation are the responsibility of an Executive Director who reports monthly to the Board of Directors. For guidance between Board meetings, the Executive Director consults with the members of the Executive Committee of the Board of Directors. The Executive Committee is comprised of the Chairman, Vice-Chair and Secretary/Treasurer of the Board of Directors.

To date, the IHDE has provided a solution for a statewide, interoperable HIE which can help hospitals and providers achieve meaningful use. IHDE provides the necessary technical support to enable consistent and secure statewide HIE across health care provider systems. It protects a patient's right to privacy and security of their health information while making healthcare safer, more effective and efficient. It helps support hospitals and providers in Idaho and the surrounding region with meeting meaningful use of electronic health records.

Progress to Date

Sustainable Plan

Since the last annual report, the grant funding awarded to the IHDE in 2010 under the American Recovery and Reinvestment Act (ARRA) has concluded. This grant was intended to support the implementation of a statewide HIE in Idaho. This \$5.9 million award was meant to assist the IHDE to accelerate its strategic plan and to electronically connect Idaho providers, hospitals and ancillary service providers across the state. To date, the IHDE has successfully drawn down the full award amount in this pursuit and demonstrated that it was a responsible steward.

A significant portion of the remaining grant balance was applied toward transitioning to a new vendor. During 2014, the IHDE will be transitioning to Orion Health which will replace its current vendor. By transitioning to Orion's HIE platform, it will not only enable the IHDE a greater sustainable planning opportunity but also migrate to a more flexible and dynamic technology solution. More importantly, this solution brings immediate value to its customer base with enhanced capabilities as well as HIE solutions that are not currently offered.

With a successful transition in 2014, the growth of its revenues over the last five years, proper management of its expenses and the contract with Orion, the IHDE has positioned itself for a sustainable plan beginning in 2015. This plan enables a greater ability to further the adoption of health information exchange in Idaho.

Adoption Activity

The IHDE has enrolled several new hospital and provider organizations. The current participant enrollment and/or connections consist of hospitals (16), laboratories (6), payers (3), providers (400+) and system access for 2,400+ provider group users (see full participation list on Exhibit A). Several participating providers have their EMRs connected to receive results delivery through the IHDE and are using the exchange to communicate on consultations. Adoption and use of the system has notably increased (see Charts #1 and #2).

Chart #1

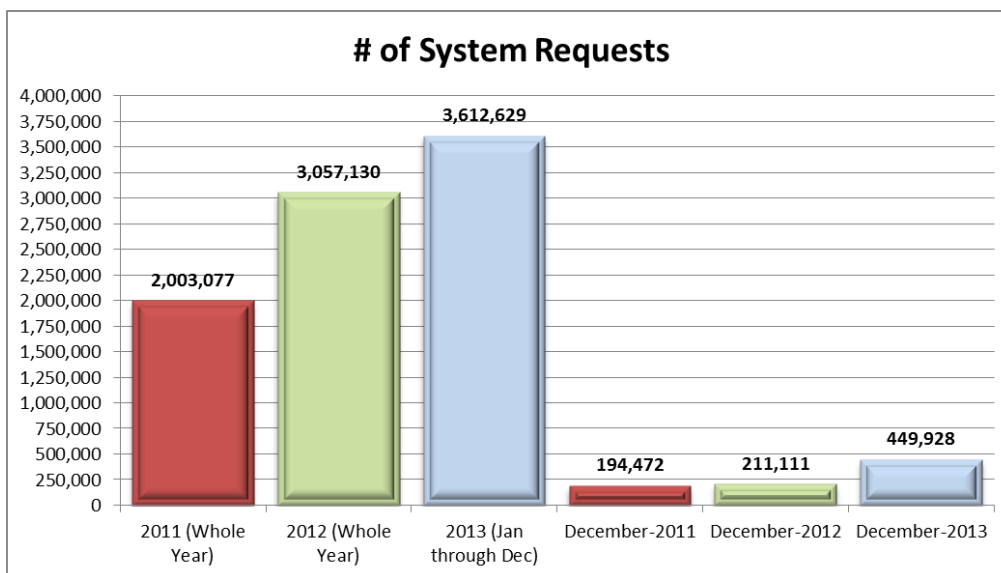
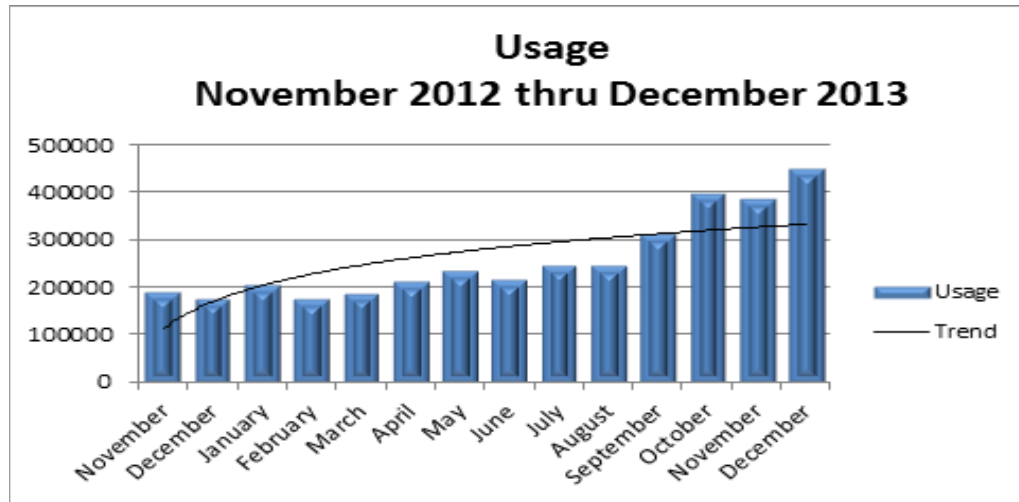


Chart #2



Supporting HealthIT Solutions

Not only is the IHDE supplying a viable solution for small provider practices to be “connected”, but the IHDE has been much more involved with several state health system initiatives. Examples of this are continued support of the Patient Centered Medical Home project, and more recently the Telehealth Task Force and Time-Sensitive Emergency (TSE) projects. Most notably, however, is the work involved with the State Health Innovation Plan (SHIP).

More hospital groups signed on with image exchange capabilities (totaling six) which enable their radiological images to be viewed by IHDE users for the treatment and coordination of care. This feature helps reduce the excess time/cost to deliver PACS images to providers that have been traditionally been burned onto a CD and couriered to the specific locations.

Client Utilization

Rate of Test Ordering

As a condition of our ARRA grant award, the IHDE has conducted an Evaluation Plan to identify the benefits offered to Idaho healthcare professionals. The IHDE engaged the College of Health Sciences-Research group at Boise State University to assist with this work. Their study reflects four evaluation components: 1) assessment of the usability of the virtual health record (VHR), 2) measurement of the positive and negative impact of the use of the VHR, 3) measurement of the impact of the VHR use on the prevalence of ordering of duplicate lab and radiology tests, 4) measurement of the impact of the VHR use on Emergency Department costs.

For the first two measures, these results were captured in last year’s IHDE annual report. The last two measures were studied by the BSU research team. Based on these results, a few summary highlights are presented:

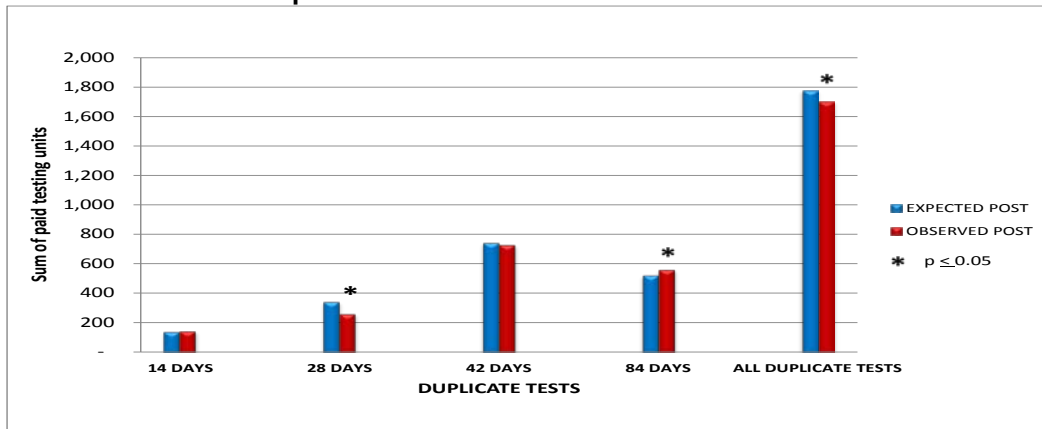
Chart #3

- Summarize the results of the analyses of the laboratory and imaging tests for 10 providers identified as top users of IHDE before and after starting to use the data exchange. The

sample was divided according to whether a given test was performed within the time period deemed too early for repeating that test according to clinical guidelines (duplicate test), or, the test was performed in a time period outside the deadline for that test (non-duplicate test). Patterns of testing were examined in four incremental blocks (14 days, 28 days, 42 days and 84 days).

- The number of duplicate tests decreased from pre IHDE clinician registration to post IHDE clinician registration up to 28 days. There was a statistically significant association ($p < .01$) between pre-post IHDE enrollment and duplicate test versus non duplicate tests for the 15-28 day block. Fewer duplicate tests were done post IHDE enrollment in this time period. Conversely, this pattern of duplicate versus non duplicate tests reversed itself in the 43-84 day block ($p < .01$).

(Chart #3) Observed versus Expected Number of Duplicate High Stability Tests by Testing Period run Post IHDE Implementation

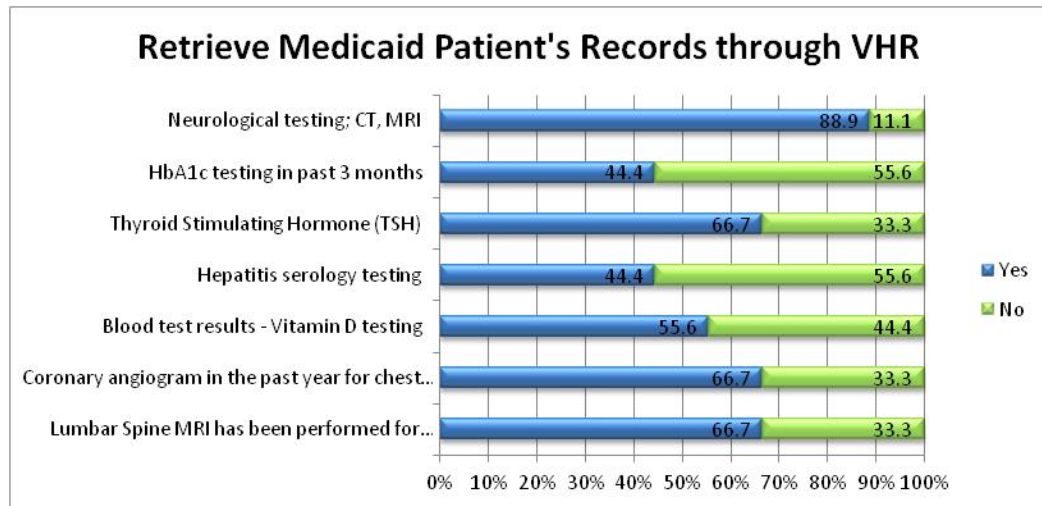


Clinical Use of VHR Survey

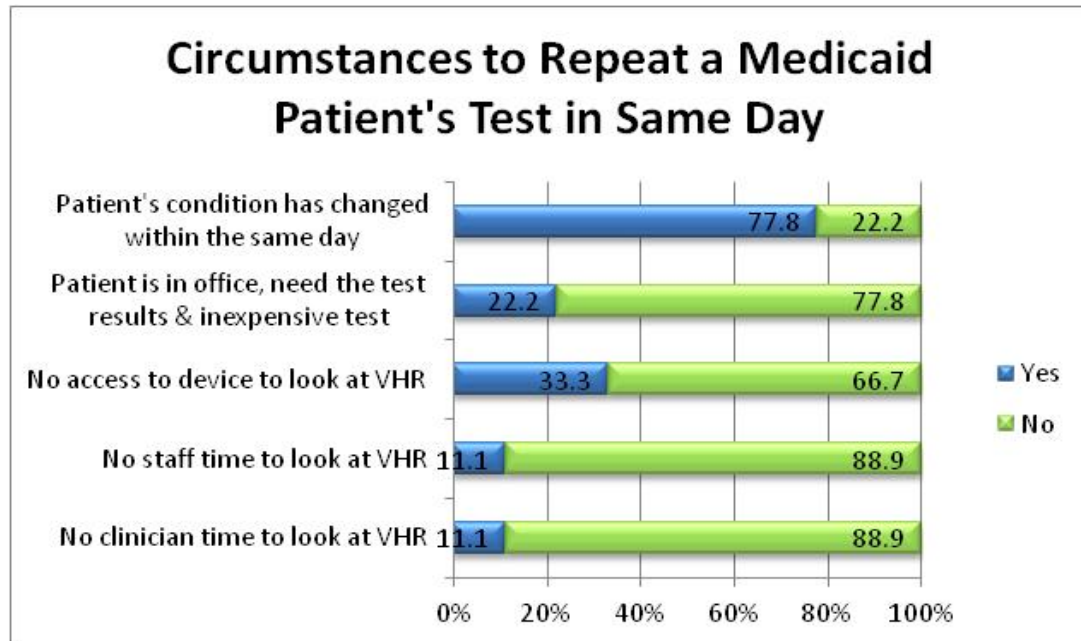
In order to further understand how clinicians might be using the VHR, a summary of all codes for high stability tests was produced for these tests run in the 18-month pre and post IHDE implementation. Information on specific tests was further categorized using the rubric of ordered too soon, (duplicate test), ordered beyond specified re-testing period (non-duplicate test), ordered same day as a duplicate test (SameDayRpt), first test ordered for a given patient (First). The sum of this information was used to develop a short survey inquiring about specific use of the Data Exchange's VHR.

A list of the top 20 clinical users of the VHR for 2013 was used. These individuals were contacted and provided a clinical usage survey to gain perspective of different ways clinicians are using patient information via the VHR to plan patient care for Medicaid patients (See Charts #4, #5).

Chart#4



Chart#5



Strategic/Operational Plans

In parallel with the market review project that resulted in the selection of Orion Health, the IHDE also revised its Strategic and Operational Plans. Contrary to the original plans which were developed around ARRA grant funding requirements, the revised plans are more customized to Idaho-specific healthcare initiatives.

One emphasis that the IHDE has incorporated into its strategy and operations is furthering its development of protecting the privacy and securing patient data. With recent cyber-attacks serving as evidence that the protection of sensitive data can be marginalized, the IHDE is committed to pursuing advanced technology and continual refinement of its policies and practices to help avoid

such future threats. One example of this pursuit is the IHDE has engaged an outside security consulting firm to perform a security audit and assessment of both its internal (Part 1) and external operations and connections (Part 2). Part 1, which involves checking the IHDE internal privacy and security policies, practices and connection vulnerabilities, has begun and is set to be concluded in June. Findings from this evaluation will be reviewed by both the IHDE Privacy & Security and Board governance levels with recommended changes to be followed. Part 2, which is set to begin after the transition to Orion Health is complete, will focus on the connection with Orion Health. The same protocol for review at the governance levels will be followed. Additionally, this audit and assessment is intended to act as a baseline study of the IHDE. The IHDE is committed to continue such assessments on a regular basis to maintain its goal of keeping current with privacy and security practices.

Upon completion of the transition to Orion Health, there are a few short-term initiatives that are being pursued. For example, migrating over the image exchange capability, previously deployed two years ago, will be pursued. To date, six hospital-based radiology systems are connected to the IHDE.

Another project underway during the transition to Orion Health is to complete a connection to the state's immunization registry (IRIS). This intrastate connection type can enhance the needs of the healthcare community to reduce the number of interface connections (point to point) to IRIS. It may also serve as an interest to some providers who currently do not have a connection with IRIS.

Another important initiative the IHDE is pursuing is support of Idaho's State Health Innovation Plan (SHIP)(<http://healthandwelfare.idaho.gov/Medical/StateHealthcareInnovationPlan/tabid/2282/Default.aspx>). The Idaho SHIP will be focused on connecting several provider practices over the 3-year grant period. Seven Regional Centers (RCs) will aim to be structured in a Patient Centered Medical Home (PCMH) environments that support treatment for their patient population following the Triple Aim (<http://www.ihl.org/Engage/Initiatives/TripleAim/Pages/default.aspx>) initiatives. The IHDE has been identified as an already-existing Idaho-based organization that can enable the use of clinical data from current connected data sources to support this treatment protocol. Additionally, with its new vendor relationship (i.e., Orion Health), additional features and functionality (e.g., patient portal, "Direct" secure e-mail, business intelligence reporting) will be reviewed and assessed to determine if these additional features can lend to the further development of SHIP goals/objectives.

While our current focus is to continue developing an Idaho statewide exchange, we are committed to working with our sister states including Utah, Oregon, Washington, Wyoming, and Montana to discuss and explore opportunities of sharing clinical and administrative information. An example of this was the successful completion of a connection to the Washington-based Beacon Community (INHS/Spokane). This connection supported the efforts by the Beacon Community to prepare a diabetes management study by means of leveraging already existing IHDE lab connections to gain access to necessary lab data. As HIEs are undergoing transitional changes now that ARRA grant funding has expired, there may be more partnership opportunities available to pursue with the regionalization of HIE.

At the federal level, another component of interconnectivity that the IHDE has is the connection with the VA hospital system Virtual Lifetime Electronic Record (VLER). Through this connection and the voluntary enrollment by U.S. veterans, it enables VA physicians to access veterans' health records in as well as outside of the VA system. Additionally, it provides non-VA hospitals and physicians access to VA medical records. The ultimate goal is to create access to a unified health data exchange for use in the betterment of a veteran's complete health record. Secondly, it can enable the health data information exchange where other regional VA facilities reside (e.g., Spokane, Salt Lake City, Salmon, ID, etc.). Finally, this project will require IHDE to follow prescribed national standards for data use (i.e., through a DURSA agreement).

To date, the IHDE/VLER adoption of use has been low. However, the IHDE will continue its marketing efforts with the VA facilities to promote this program to get more veterans enrolled. What has historically taken weeks to obtain veterans' medical records from the VA is now available in minutes from the IHDE, thus enabling non-VA hospitals and providers to make more informed decisions about a veteran's care.

Next Steps

Follow strategic plan initiatives for 2014 - 2015:

- Finalize contract with Orion Health
- Finish transition to Orion Health
- Build Immunization Gateway, complete connection to IRIS, connect 10 + health systems and provider clinic sites
- Support statewide health project initiatives (e.g., Statewide Health Innovation Plan (SHIP), Patient-Centered Medical Home, Telehealth Task Force, Statewide Trauma System)
- Assess market capabilities in the HIE landscape to pursue (Idaho Cancer Registry, Public Health, support Meaningful Use #2, eastern Idaho, interstate)
- Achieve sustainable plan status in 2015

IHDE Testimonials

"For me, having that data available at my fingertips, without waiting hours or the next day to get records, so I know I'm getting the correct study or lab requested, is great. Just having access to the records is great. I remember a patient being admitted for a hip fracture who had never been admitted to Saint Alphonsus before. You have to risk stratify them for cardiac events before they go to the OR. As I was going through his history with him, he told me "I had a little bit of heart trouble a few years ago and I'm fine." But then I saw in the IHDE that he had quadruple bypass surgery and multiple heart catheterizations, with stents placed within the last year, and you realize it's a little bit different than "a little heart trouble." So, it's really helpful to have that information. Another time I had a patient who was undergoing chemotherapy with a lot of questions about the treatment, and he couldn't remember his oncologist's name. I was able to find out who his oncologist was in the Virtual Health Record (VHR), get on the phone, call the oncologist and get all the questions answered. I once worked with a dermatologist who didn't know how to leave a note in our EMR, but he told me that he dictated a note in the IHDE and that I could find it there. So that was helpful too."

*Lisa M. Nelson, MD, Hospitalist
Saint Alphonsus Regional Medical Center*

"When information is needed for a patient's chart, clinic staff wants a fast turnaround when they call medical records, but they don't realize the complexities often going on behind the scenes that can create delays. With some requests, especially those that go back 8-10 years, a considerable amount of detective work has to be done to obtain the right

information. Being a trauma center, you can imagine the amount of records that can quickly accumulate after a patient has been here (at SARMC) for several weeks. So while we would like to improve our turnaround time for clinics that need records quickly, sometimes other factors can cause a delay. The beauty of the Idaho Health Data Exchange is clinic staff can quickly log onto the site and get the records they need within minutes.”

“There are offices whose workflow is to call medical records departments and some of their requests are upwards of 35-40 times a month. Even though we’ve let these high users know that they can get their medical records through the IHDE, their standard workflow is to continue calling medical records. It will only take logging in to the IDHE once or twice before they convert to the easier process.”

*Eric White, Physician Relations Executive
Saint Alphonsus Regional Medical Center*

“I was active in Health Information Exchange (HIE) back in New York. Coming out to a rural state like Idaho you can make the argument that HIE is even more critical because care is done in many different environments from the rural clinic to a critical access hospital to a medical center. And then some physician specialists only come out to these facilities maybe once or twice a month. So the ability to have a centralized hub of data that complements what SL is doing with Epic is invaluable. I don’t look at HIE as antagonistic - I look at it as complementary. And together, we are going to do what we need to improve care and reduce costs. I see that there is going to be a role for the individual person who chooses not to have a doctor or a bunch of doctors in one area. I also see the value of offering health IT to clinicians who aren’t employed by a health system. There are so many different touch points and I think that as health IT matures and as we digitize healthcare, we are going to position ourselves in the proper way to help the patients in our community. We all have to work together. The IHDE is well positioned for a state-wide audience. For population health, we will be able to take care of a population and the IHDE will be able to add in data to help us to improve patient care and drive down healthcare costs.”

*Marc Chasin, M.D., MMM, CPE, CHCIO
System Vice President, Chief Medical Information Officer & CIO
St. Luke’s Health System*

“Connection to an HIE is part of our long term strategy at Tri-State Memorial Hospital and Medical Clinics. We researched what options we had for an HIE. We were impressed with the IHDE’s structure and especially the friendly, end-user experience. Based on our shared border with Idaho we believe that the IHDE will provide TSMH with the best fit with surrounding medical facilities in the care of our patients.”

*Patty Schneider, BSN
Clinical Informatics Specialist
Tri-State Memorial Hospital
Clarkston, WA*

“Being able to leverage the IHDE for the image exchange and the whole patient record itself, without having to build that connectivity to all of the other sites is quite a cost savings for us. The cost I would have to pay for network administrators to maintain the connections with all of the other practices over the last ten years would far surpass the cost to connect to the IHDE.”

*Curtis Fryer, CIO
Clearwater Valley Hospital, Orofino and
St. Mary’s Hospital, Cottonwood*

Exhibit A



Idaho Health Data Exchange

Participants as of April 29, 2014

Provider Practice EMR Connections

APB Medical • Boise Kidney & Hypertension • Boise Valley Asthma & Allergy • Boundary RCHC (Kaniksu Health Services)
Clearwater Medical Clinic • Coeur d'Alene Arthritis Association • Coeur d'Alene Pediatrics • Comprehensive Dermatology of Idaho
Davis Family Medicine • Deer Point Family Practice • Digestive Health Clinic • Eagle's View Family Medicine
Erik S. Jones, D.O. • Family Health Center • Family Health Services • Family Medicine Residency of Idaho
Glenn's Ferry Health Center • Health West • Idaho Arthritis Center • Idaho Gastroenterology Associates • Idaho Hand Center
Idaho Nephrology Associates • Idaho Physical Medicine and Rehabilitation • Imaging Center of Idaho • Ironwood Family Practice
Interventional Pain Consultants • Moscow Medical PA • Neurosurgery & Spine NW • OB/GYN Associates • Orthopedic Associates
Oster Medical Group • Primary Health Medical Group • Sandpoint Pediatrics • Shoshone Family Medical Center
Terry Reilly Health Services • Treasure Valley Cardiology • Treasure Valley Endocrinology • Treasure Valley Gastroenterology
Valley Medical Center

Virtual Health Record (View) Only

Advanced Family Medicine • Avamere Transitional Rehab (Boise Operations) • Blue Mountain Family Health
Boise Family Medicine Center • Boise VA Medical Center • Bryan J. Anderson, M.D. (ID Surgical Associates)
Cancer Center of Idaho • Center for Colorectal Care • Community Health (DBA Lewis & Clark Center) • DeMeyere Clinic
Dermatology Clinic of Idaho • Eagle Family Health • Elks Rehabilitation Hospital, Boise • Emergency Medicine of Idaho
Emmett Medical Center • Family Health Care • Family Home Health & Hospice • First Choice Home, Health & Hospice
Genesis Health Care • Hailey Orthopedics & Sports Medicine • Idaho Sports Medicine Institute • Idaho Urologic Institute
Initial Point Family Medicine • Intermountain Medical Imaging • Johnny B. Green, M.D. - Idaho Surgical Associates
Treasure Valley Colon and Rectal Surgery • Kari Peterson, M.D. • Lawrence Garges, M.D. (Allergy & Asthma Tri-State Clinic)
Lewiston Orthopedic Associates • Life Care Center of Valley View • Locust Grove Women's Health • Magic Valley Surgery Clinic
Meridian Pain Center • Mountain States Hand Clinic • North Canyon Medical Center • Pain Care Boise • Phoenix Radiology
Progressive Nursing Services • Sawtooth Infectious Diseases • Shauna T. Williams, M.D. - Idaho Surgical Associates
Southwest Idaho Advanced Care Hospital • St. Joseph Medical Group Gastroenterology & Endoscopy Center • Stark Medical Group
Star Medical • Syringa Surgical Center • The Center for Pain Care • Treasure Valley Surgery Center • Unity Health Center
West Idaho Orthopedics & Sports Medicine

Lab EMR Connections

Boise Pathology Group
Interpath Lab
LabCorp
PAML
Treasure Valley Lab

Payors

Blue Cross of Idaho
Idaho Department of Health & Welfare
Regence Blue Shield of Idaho

Hospital EMR Connections

- Bonner General Hospital
- Boundary Community Hospital
- Clearwater Valley Hospital
- Gritman Medical Center
- Kootenai Health System
- Pullman Regional Hospital
- Saint Alphonsus Health System - Boise, Nampa, Ontario, Baker City
- St. Joseph Regional Medical Center
- St. Luke's Health System - Boise, Magic Valley, Meridian, Wood River
- St. Mary's Hospital
- Tri-State Memorial Hospital
- Treasure Valley Hospital
- West Valley Medical Center
- Weiser Memorial Hospital
- Whitman Hospital & Medical Center