Company Overview

• Delivering IT services in the federal sector
  ─ Incorporated in 2005
  ─ Service Disabled Business – CIO-SP3, T4
  ─ Fastest Growing 500, Inc. Magazine- Second Year in a row
  ─ Headquartered in Reston, VA

• Our Clients include
  ─ DoD/DHA
  ─ AF (AMC)
  ─ VA/VHA
  ─ DHS

• Business areas: Health Solutions and National Security Solutions
We provide a full-spectrum of IT program support, from software engineering and systems integration, information assurance and infrastructure management to program management and administrative support.

Core Practices

- Enterprise Mobile Solutions
- Analytics and Decision Support
- Cyber
- Telehealth
- Infrastructure
- Software Development
- Open Source Solutions
Agenda

- Approaches in Innovation in Healthcare IT
- Examples of Innovations
  - Garfield
  - Vanderbilt
  - HIMSS (Cleveland Clinic)
- Collaborative Platform: Architecture
  - Healthcare Services Platform Consortium
- LongView’s Health IT Innovation Center Visions and Announcement
Reinventing Health Care Delivery: Innovation and Improvement Behind the Scenes

• Hospitals and Health Systems are creating new entities to explore and exploit non-traditional solutions to a wide range of systemic health care delivery challenges. Known as innovation centers, the organizations are modeled on similar entities from non-health care sectors and focus largely on quality, access, and cost issues.

• Hamstrung by an increasingly complex, costly, and disorganized system of care, health care organizations are following the lead of the corporate world and embracing innovation as a way to overcome the seemingly intractable problems that have undermined U.S. health care delivery for decades.

• Today’s innovation centers—most of which are affiliated with large hospitals or health systems — range in scope from modest internal programs to large, formalized organizations with dedicated physical space, sizable staffs, and external clients. Key areas of emphasis include facility design, operational efficiency, optimized information technologies, improvements in the patient experience, and care quality.

The California HealthCare Foundation interviewed leaders at health care innovation organizations nationwide to learn more about how the centers operate, the objectives they are pursuing, and some of the challenges they face.
Innovation in Healthcare
Dr Lyle Berkowitz

• Like the story of the blind men touching different sides of an elephant and each describing something separate, you will hear a wide variety of answers to this question based on whom you ask.

• Should the focus of innovation be on innovative information technologies, devices, workflow processes, care models or business models? Obviously, it can be any or all of the above. But, in a world changing to value-based reimbursement, we are seeing that process and care model innovations will likely be leading the charge, with information technology being an enabler of those innovations.

• An improvement project is done to improve something, while an innovation project is done to blow up the current process or tool and create a new one. A classic example of this is polio: improvement experts would focus on designing a better iron lung, while innovation experts would consider how they might create a vaccine to stop this disease in the first place.
Innovation in Healthcare

• Is there a science or methodology to doing innovation well? The world of innovation relies on the concept of “Design Thinking” which has a different set of methodologies. The typical innovation project involves three main phases: discovery, incubation and acceleration. In the discovery phase, a problem is studied and observed and then various brainstorming techniques are used to create potential solutions. In the incubation stage, rapid cycle prototyping and piloting are done to quickly and cheaply find what fails and what works. In the acceleration phase, the successful pilot is spread using a variety of educational and other techniques.

• What helps make up a successful healthcare innovation?
  ─ First, it always starts with a passion for making something better plus some time and resources to focus on the project.
  ─ Second, it needs to have a real-world business model to keep the innovation sustainable.
  ─ Third, the innovation needs to be well integrated into information technologies and clinical workflows so that it can be easily spread. Not surprisingly, it is this last part which is always one of the hardest and yet most important pieces. And it is why this intersection of information technology and innovation remains critical to the success of evolving our healthcare system to meet its potential.
Garfield Innovation Center

• Converting ideas into working solutions—particularly in the area of facility design—was and remains the central goal behind Kaiser Permanente’s Sidney R. Garfield Health Care Innovation Center. Kaiser launched the sprawling, 37,000-square-foot warehouse-like facility in an industrial district near Oakland, California, in 2006.

• The center initially was developed to optimize technologies and design configurations in support of a massive, $30 billion hospital construction investment and system-wide deployment of an electronic health record.

• Staffed by six, full-time equivalents and equipped with a range of simulated care environments, including an entire mocked-up medical-surgical unit, the Garfield Center today continues to serve as a test bed for workflow improvements, floor plan designs, and new technologies.
Vanderbilt Center for Better Health

- Stimulated by 1999 and 2001 Institutes of Medicine Reports, To Err is Human and Crossing the Quality Chasm. The studies, which deconstructed the myth of U.S. health care supremacy and advocated a fundamental transformation in the care process, prompted the Nashville-based medical center to create the Vanderbilt Center for Better Health in 2002.

- Vanderbilt’s pioneering adoption in the early 1990s of an electronic medical record and physician order entry system — both now supported by evidence-based clinical guidelines—helped jumpstart the center.

- In the years since its formation, the center has evolved into a large, multi-faceted organization operating two, 18,000-square foot facilities and employing 15 people. The center provides a range of tools and capabilities for developing, testing, and implementing new health care methodologies, systems and strategies.

- About half the work is done for the medical center and medical school; the rest is done for external clients, including other health systems, payers, government agencies and life science companies. Given Vanderbilt’s information technology track record, IT continues to be a primary focus of the work, Osborn says.

- One of the central lessons learned at the center has been that while developing new technologies is important, the real challenge lies in adapting them to human behavior— and vice versa—in order to maximize the technology’s potential. Too often, Osborn says, organizations invest “a ton of money” into IT systems and not only don’t see a return, but actually witness a diminution in productivity.
Vanderbilt Center for Better Health: Examples

• One recent example of the type of tasks the center tackles: Technology currently exists to implant wireless micro-devices in the chest walls of at-risk cardiac patients to provide early warning of potential heart attacks.

• The hard part, Osborn says, is figuring out who is responsible for monitoring the device. Is it the primary care physician, the cardiologist, or both? And is the monitoring a stand-alone service or part of a larger care continuum? And what are the responsibilities of the patient? Excessive drinking or drug use likely would trigger false positives. What would happen then?

• “It’s a good example of how the technological hurdle can be pretty small compared to hurdles that need to be overcome in terms of human behavior and the business processes necessary to operationalize the technology.”
HIMSS Innovation Center

- HIMSS Innovation Center established as part of the Global Center for Health Innovation, in downtown Cleveland. The 30,000-square-foot Innovation Center includes a Health IT Simulation Center testing health IT interoperability, and a Healthcare Technology Showcase demonstrating the value of IT and information exchange to patient care, clinician and patient satisfaction, population health, and the bottom line.

- “The HIMSS Innovation Center is a milestone in our mission to improve health through the best use of information technology. As a permanent facility capable of hosting virtual and in-person experiences, clinicians, health professionals, consumers, and policy-makers can see how the secure and appropriate exchange of health information improves the outcomes, safety, cost-effectiveness, and access to care.

- It is an interactive setting where, with our collaborators, HIMSS enables testing of interoperable IT products, and provides knowledge and firsthand demonstrations of the value of health IT for patient care,”

- Carla Smith, MA, CNM, FHIMSS, Executive Vice President, HIMSS.

HIMSS Innovation Center

- The Health IT Simulation Center is a fully operational, multi-care environment populated with simulated patient demographic, clinical and financial data. By being either physically in the Innovation Center or virtually through the cloud, members of the health and healthcare communities can interact in real-time to both test and demonstrate scenarios that elicit a specific product’s interoperability and other capabilities to improve quality and patient outcomes, cost-effective care coordination, secure data exchange and better business performance.

- Within the Healthcare Technology Showcase, stakeholders view rolling exhibitions on information exchange, mobile health, consumer-driven health, and more. The year-round exhibition space will further validate functionality for new and emerging products using standards and customized testing in both a physical and virtual demonstration environment.

- HIMSS Collaborators play a key role at the Innovation Center with their health IT solutions in place as ongoing demonstrations for healthcare providers to review and test products for their respective hospitals and clinical practices. This side-by-side comparison provides a unique and beneficial option for providers ready to invest in and upgrade health IT systems for use in their organizations.
Healthcare Services Platform Consortium

**When:** Tuesday, May 21, 2013 (1:00-3:30pm, MDT)

**Where:** Intermountain Healthcare’s Central Offices*
36 South State Street
Salt Lake City, Utah 84105
*Conference call and WEBEX will be available

Stan Huff, MD
Chief Medical Informatics Officer
Intermountain Healthcare

Chris Wood, MD
IS Medical Director
Intermountain Healthcare

Vishal Agrawal, MD
President
Harris Health Care Solutions

Oscar Diaz
VP, General Manager
Harris Health Care Solutions
Current State of the Industry

Industry Observations
- 1200+ vendors on the floor in a highly fragmented industry
- 30% net new companies

HIMSS 2013 FLOOR

- Epic
- Allscripts
- Cerner
- McKesson
- Meditech
- GE

The Center Isle Syndrome

- Continue to develop in 30-40 year old architectures
- Large gap in the ability to adjust to major and rapid shifts in clinical workflows.

- Built to facilitate generation of the bill
- Rip and replace strategy with minimal net gain
Seamless Service Orientation with BPM and SOA…

- Services are building blocks
- Reuse of existing assets
- Flexibility to change
- Utilizes both Technical & Business Services

**Business Model**

- Patient Referral Summary
  - CHCs
- Referral List
  - Referral Coordinators
- Schedule Visit
  - Specialty Clinic
- Report back to Referring Physician

**External**

- Obtain Authorization
- Validate Insurance

**Process**

- Schedule Visit

**Workflows**

- User Interface (Portal)
- Process Management
- Application & Data Webservices

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**LongView**
Dr. Yan Chow: Director of Kaiser Permanente (KP) Information Technology’s Innovation & Advanced Technology Joins LongView

• Dr. Yan Chow is the Director of Kaiser Permanente (KP) Information Technology’s Innovation & Advanced Technology Group (IAT). IAT identifies, assesses, and makes internal recommendations on new and emerging clinical information technologies that will impact health care in the next 2 to 5 years. IAT is affiliated with KP’s Sidney R. Garfield Center for Health Care Innovation, an advanced 37,000-sf laboratory for care delivery simulation.

• Dr. Chow has had a successful clinical practice at KP for 26 years. For 10 of those years, he was also involved in regional IT management. Dr. Chow has founded and advised a number of start ups in the Internet, health care technology, storage, and database spaces. In 2004 he was awarded 3 U.S. patents for co-inventing a network storage architecture 2 orders of magnitude faster than competitive designs. He also developed commercial database software that accelerated very large database (VLB) processing 240-fold. He has been an author and invited speaker at industry conferences.

• Dr. Chow earned his A.B. with honors from Harvard University and his M.D. from the University of California at San Diego. In 2005 he received his MBA from the University of California at Berkeley’s Haas School of Business, where he graduated as valedictorian.
LongView Vision: HIT Innovation Center for Federal Sector

• A Center of Excellence for HIT
• A physical facility similar to the Garfield Center or HIMSS Innovation Center that would house health technologies and EHRs (VistA, AHLTA, Commercial)

• Functions/Capabilities:
  ━ Demonstration of new technologies in a given environment
  ━ Integration and Testing Environment for HIT (mobile, consumer focused, devices, etc)
  ━ Test Workflow and assess the operational impact
  ━ Consultative:
    ▶ Assess value and impact of innovation
    ▶ Federalization Services for commercial companies
Expected Value

• Government
  — To access and internalize IT innovation that is problem focused
  — Ability to test and compare various products in such a lab
  — Lower risk by being able to assess potential impact of technologies into their environment

• Industry Partners
  — Access to federal IT environment for new/existing products
  — Lower barrier to entry into DoD/VA market
  — Improve product and exposure
Q & A