

HIMSS11 Interoperability Showcase™

Use Case Tour Descriptions

*The color block on the left of each use case represents the Community of Care that the use case tour is shown in.

	<p># 17 Biosurveillance Monitoring and Detection – ILI</p> <p>Meaningful Use: Improving Population & Public Health</p> <p>Description: The use case demonstrates how clinical data, including laboratory results, are exchanged and analyzed by public health agencies to support population health monitoring. The scenario also features public health biosurveillance monitoring.</p> <p><i>Participating in this use case are, 4Medica, Healthland, and University of Washington.</i></p>
	<p># 18 Immunization Registry Updating and Utilization</p> <p>Meaningful Use: Improving Population & Public Health</p> <p>Description: The use case follows a child through several visits to his/her pediatrician for well-child checks and immunizations. Using the HIE’s infrastructure, PHR and EHR systems are able to access and update the same data on the child’s immunization history. The State’s Immunization Information System is receiving updates from provider EHRs and because of this; public health can easily track population immunization rates and trends.</p> <p><i>Participating in this use case are Alert, Atlas, Care Evolution, Greenway, MIE, Orion, Software Partners, and SuccessEHS,.</i></p>
	<p># 20 Early Hearing Screening and Guidance for Newborns</p> <p>Meaningful Use: Improving Population & Public Health</p> <p>Description: This Use Case represents the newborn hearing screening process flows conducted at a birthing facility and as part of a state-based public health Early Hearing Detection and Intervention (EHDI) program. Hospital-based hearing screening results from the screening device and/or from the birthing facility EHR are transmitted electronically to the state EHDI program that is responsible for creating the Early Hearing Care Plan (EHCP). The EHCP generated from the state EHDI Information System (EHDI-IS) communicates an individual child’s birth screening outcome, jurisdictional specific newborn hearing screening guidelines and quality assessment reports through the Health Information Exchange (HIE) to the birthing facility EHR and the Primary Care Provider (PCP) EHR. As an optional flow, parent may upload EHCP into their Personal Health Record (PHR) from the Health Information Exchange (HIE).</p> <p><i>Participating in this use case are Epic, GE, Greenway, OZ Systems, and Success EHS.</i></p>
	<p># 21 Patient Privacy Protection with Emergency Response Events</p> <p>Meaningful Use: Security & Privacy</p> <p>Description: This use case demonstrates consent management within an HIE. The scenario also shows how a patient can opt-in to a policy where certain data cannot be accessed without authorized consent.</p> <p><i>Participating in this use case Care Evolution, Forcare, IBM, MIE, SuccessEHS</i></p>

22 Newborn Screening Quality Monitoring

Meaningful Use: Quality

Description: EHDI Quality electronic measures have been generated to enable the monitoring of conformance to Early Hearing Screening and Intervention conventions. These electronic measures are made available to clinicians, public health authorities and others involved quality reporting measures as a Quality Electronic Measures. The patient presents to the Pediatrician with hearing screening results that indicate hearing loss. The patient is referred for assessment for follow-up diagnosis and treatment recommendations. At discharge, a medical summary and/or quality metric summary is provided to public health or to the HIE which provides quality measurement and reporting as a value added service on behalf of the HIE participants. Comparative quality reports are developed and distributed to the clinical stakeholders.

Participating in this use case are GE, OZ Systems, and Siemens.

23 Ambulatory Quality eMeasure Reporting

Meaningful Use: Quality

Description: The use case demonstrates how an HIE can query an XDS Registry for documents which are analyzed to see if they can allow data capture and generation of standard public health reporting measures for quality, surveillance monitoring, chronic disease tracking. The scenario also demonstrates the analysis of other quality measures such as Notifiable Disease Identification data that can be provided to state and local public health entities.

Participating in this use case are Epic, Ingenix, and Outcome.

26 Integrated Reporting for Clinical Research Participation

Meaningful Use: Improving Population & Public Health

Description: The use case demonstrates the conduct of a clinical research study by a Research Sponsor and its exchange of information with a Site Investigators' site where patient data is gathered, as a collaborative workflow process executed in a highly automated and secure manner. The information so gathered is authenticated at the trial site before being forwarded to the sponsor and archived in the site clinical trial document vault as part of the permanent source record of the trial.

Participating in this use case are Epic, GE, Nextrials, and Outcome.

31 Vital Records_Update at Point of Delivery

Meaningful Use: Improving Population & Public Health

Description: The expectant mother sees the OB/GYN for routine pre-natal visits. When she arrives at the birthing facility, her pre-natal clinical data is available to the care team. The antepartum care information is incorporated into the labor and delivery record along with the clinical details from the birth, and initial post-partum period. The Vital Records forms are surfaced from within the EHR pre-populated with information available from the clinical data in the EHR. The individual responsible for submitting the certificate request reviews the information in the form, enters information required to be entered by the responsible party, and submits the form. The birth certificate information is received by CDC's Vital Records department. Vital records submits state summary vital statistics information for assessments of national and regional population birth statistics.

Participating in this use case are the CDC, GE, Greenway, Epic, Outcome, Oz Systems, and SuccessEH.

	<p>#11 Clinical Event Notification</p> <p>Albert Smith, a 50 year old man with a history of heart disease, has an implanted cardioverter-defibrillator. Today he fell off a ladder, breaking his arm. Upon arrival in the ER he was connected to a VSM, was then connected to additional medical devices in the ER. He will undergo surgery and be transferred to the ICU. A variety of patient and device alarms occur throughout his stay. Throughout, electronic communication of patient physiologic data, alarms, and infusion pump medication management is immediately available to all who need the information, contributing to improved patient care, increased safety, accuracy and efficiency.</p> <p><i>Participating in this use case are ,Amcom, Baxter, B Braun, Capsule ,Care Fusion,Cerner, GE, Hospira, Mindray, PatientKeeper, Phillips, Polycom, and Surgical Information Systems.</i></p>
	<p>#12 Device Support for Inpatient Continuity</p> <p>Mother-to-Be, is involved in a traumatic event. Demonstrations illustrate the electronic communication of patient physiologic data, alarms, and infusion pump medication management immediately to all who need the information: The patient’s prior medical record is available when she arrives. Assessment reveals infant is in distress. Patient undergoes C-Section, and then is transferred to the ICU. Baby is cared for and undergoes hearing screening test. Hearing test results, like the other data are available in the hospital EMR. The screening results are also sent to a public health agency. Upon discharge, records are available to the OB and pediatrician. <i>Participating in this use case are Amcom, Baxter, B Braun, Capsule, Carefusion, Epic, GE, Hospira, iSirona,Mindray, Nuvon, Oz Systems, Philips, Polycom, Surgical Information Systems, and Welch Allyn.</i></p>
	<p>#13 Medication Administration Safety</p> <p>A patient arrives at the hospital with possible acute lung injury from an accident. In the ED he is placed on monitors and possible cardiac complications are noted along with more labored breathing. He is transferred to the ICU and placed on a ventilator. Medications are delivered by infusion pumps with the assistance of the PCD PIV profile’s electronic messages supporting the 5 rights of medication safety. Throughout, electronic communication of patient physiologic data, alarms (e.g., occlusion, door open), and infusion pump medication management is immediately available to all who need the information, contributing to improved patient care, increased safety, accuracy and efficiency.</p> <p><i>Participating in this use case are Alert, Amcom, Baxter, B Braun, Carefusion, Cerner, GE, Hospira, Nuvon, Philips, Polycom, and Welch Allyn.</i></p>
	<p>#14 Patient Care Devices and Meaningful Use</p> <p>This tour describes how interoperable electronic communication of medical device data contributes to patient care, safety, efficiency and effectiveness while reducing costs and permitting selection and installation of “best of breed” devices and systems from multiple vendors. The PCD describes technical documents currently available and those under development, their relationships to clinical functions and meaningful use. IHE PCD standards-based communications are useful in care as well as acute care settings.</p> <p><i>Participating in this use case are Patient Care Device Standards-based Solutions in Support of Meaningful Use.</i></p>
	<p># 1 Baby Delivery Coordination</p> <p>Meaningful Use: Care Coordination</p> <p>Description: This use case features a woman presenting at the hospital Labor & Delivery (L&D) dept for delivery of her baby and demonstrates the ability to provide efficient and accurate maternal health care and formally close the episode of care with the patient’s obstetrician. The use case will also show the interoperability of patient data between the MD office and the hospital L&D department as well as the sharing of pertinent documents and photos of the birthing event.</p> <p><i>Participating in this use case are eMDS, GE, Greenway, MedAllies, and NextGen.</i></p>

3 Sharing Emergency Encounter Results

Meaningful Use: Care Coordination

Description: This use case features a patient arriving in the emergency room that required medical imaging. The image was later reviewed by the patient's care provider within their own EMR as well as by the patient within their PHR. The scenario demonstrates ability to share patient information across multiple care provider systems. And using both HIE services and point-to-point HISP services to complete the healthcare info exchanges.

Participating in this use case are Allscripts, Aware, Forecare, GE, Infinitt, MedAllies, Siemens, and T-System.

7 Dermatology Referral with Pathology Report

Meaningful Use: Care Coordination

Description: This use case features a patient being referred from their PCP to a Dermatologist to investigate a suspicious growth on the patient's shoulder. The lab specimen is transferred to the lab with the order information. The scenario also demonstrates the ability for providers to refer patients to a specialist and then have all care givers have access to encounter summaries and associated lab reports.

Participating in this use case are Alert, Allscripts, eCW, MIE, Perceptive Software, and Sunquest.

24 Hospital Quality eMeasure Reporting BMI

Meaningful Use: Quality

Description: This use case features advanced quality measurement where electronic measures are used to provide routine Quality Measurement to assess clinical process measures for Emergency Department throughput and Stroke (-3 Anticoagulation for A-fib/flutter). The scenario demonstrates the ability to provide efficient and accurate quality measurement using eMeasures to assemble quality source data from Electronic Health Record sources.

Participating in this use case are CPSI, Ingenix, and SAIC.

27 Clinical Decision Support for Stroke Care

Meaningful Use: Improving Quality, Safety, Efficiency & Health Disparities, Care Coordination

Description: Sixty-four year old male with known history of atrial fibrillation is admitted to the ED with right-sided weakness. The ED physician diagnoses a ischemic stroke and orders thrombolytic therapy to begin. Patient is transferred to ICU for 24 hours of close monitoring; transferring to a medical unit. The stay on the medical unit is for the patient to become medically stable before transferring to the Rehabilitation unit.

Participating in this use case are Alert, GE, Elsevier, and Perceptive Software.

28 Informed Care at a Vacation Community

Meaningful Use: Care Coordination

Description: The use case demonstrates how a patient can receive quality care at a destination that is not a frequent location where the patient receives care, e.g. at a vacation community. Special needs and medical conditions are made readily available to all care delivery organizations independent of geographic location with minimal exchange of an individual's clinical information.

Participating in this use case are Care Evolution, EClinicalworks, and Epic.

	<p># 29 Supporting the Medical Home Model of Primary Care</p> <p>Meaningful Use: Care Coordination; Engaging Patients & Family</p> <p>Description: This use case presents a model of a “medical home” deployment leveraging the electronic information exchange to facilitate care delivery coordination of a chronically ill patient by the primary care physician. The Provider is able to check the patient’s overall insurance eligibility as part of the treatment planning process. Engagement by the patient in the overall care plan via a PHR information exchange and economic support from the patient’s health plan provider will also be highlighted.</p> <p><i>Participating in this use case are Allscripts, CPSI, FIS, GE, and Ingenix.</i></p>
	<p># 10 Urologist Referral with Lab Specimen Report</p> <p>Meaningful Use: Care Coordination</p> <p>Description: This use case features a patient being referred from his PCP to a urologist to investigate an above average PSA test. A tissue biopsy specimen is sent to the lab. The scenario also demonstrates the ability for providers to refer patients to a specialist and then have all care givers have access to encounter summaries and associated lab reports.</p> <p><i>Participating in this use case are e-MDS, MCS, the Social Security Administration, and Sunquest.</i></p>
	<p># 15 Adverse Event Reporting</p> <p>Meaningful Use: Improving Population & Public Health</p> <p>Description: This use case demonstrates how drug utilization and adverse reaction information are exchanged and used to expediently trigger action by the Food and Drug Administration (FDA) to support drug safety in the industry. The demonstration will use IHE Profiles and HITSP constructs to demonstrate expedient drug safety reporting from the hospital to the FDA.</p> <p><i>Participating in this use case are Cerner, the FDA, MCS, and Nextrials.</i></p>
	<p># 16 Physician Cancer Registry Updating and Utilization</p> <p>Meaningful Use: Improving Population & Public Health</p> <p>Description: The use case follows a patient through a visit to his/her Family Practice Provider and Dermatologist for diagnosis of cancer. It demonstrates how clinic/physician office systems can share information with one another and submit a Cancer Event Report to a Public Health State Cancer Registry. The scenario shows how public health reporting is performed for all patients diagnosed with a reportable cancer.</p> <p><i>Participating in this use case are Allscripts, e-MDS, Outcome, and the CDC.</i></p>
	<p># 19 Lab Cancer Registry Updating</p> <p>Meaningful Use: Improving Population & Public Health</p> <p>Description: The use case follows a patient through a visit to his/her Primary Care Provider and diagnosis of cancer. It demonstrates how local pathology laboratory systems can submit a Cancer Event Report to a Public Health State Cancer Registry. The scenario shows how public health reporting is performed for all patients diagnosed with a reportable cancer.</p> <p><i>Participating in this use case are Sunquest and the CDC.</i></p>
	<p># 30 Enhancing Care Coordination via Transcription Services</p> <p>Meaningful Use: Care Coordination</p> <p>Description: This Use Case demonstrates the use of a typical transcription service assisting in the creation and exchange of medical summaries from a non-EHR equipped physician office to one that uses an EHR for its encounter management. This EHR- equipped Specialist then shares its encounter information with a 2nd specialist via a secure email facilitated by its HISP association.</p> <p><i>Participating in this use case are GSI Health, MedAllies, NextGen, and Verizon.</i></p>

	<p># 32 Medication Management in Inpatient Setting</p> <p>Meaningful Use: Improving Quality, Safety, Efficiency & Health Disparities</p> <p>Description: This use case demonstrates the management of medication administration in an acute care or inpatient setting. It highlights the automated interaction of the multiple systems typically deployed in this care setting including the utilization of an automated dispensing system to ensure the safe and efficient distribution of the medication itself.</p> <p><i>Participating in this use case are Epic, Interfaceware, and Omnicell.</i></p>
	<p># 33 Improving Care Follow-up After GI Endoscopy Procedure</p> <p>Meaningful Use: Care Coordination</p> <p>Description: This use case features a patient presenting at a GI Outpatient clinic for a colonoscopy procedure. The patient's primary care physician forwards a referral medical summary to the GI specialist ahead of the procedure. During the procedure images are captured and forwarded to imaging services. Following the procedure an op-note and a nursing summary of the pt's recovery is shared with the pt's PCP along with the images from the procedure for effective follow-up care.</p> <p><i>Participating in this use case are Apixio, Endosoft, e-MDS, NextGen, and Philips.</i></p>
	<p># 2 Improving Emergency Care Efficiency</p> <p>Meaningful Use: Care Coordination</p> <p>Description: This use case features a patient arriving in the emergency department with symptoms requiring a cervical spine digital radiograph. Image is taken and is available for viewing by the patient's physician in the ED who is able to see results from the imaging department including the images and the report. ED encounter summary and images are made available for viewing by the patient's primary care physician.</p> <p><i>Participating in this use case are Allscripts, Canon, Fuji, GE, Healthland, Infinitt, Insite One, Philips, Picis, and Sage.</i></p>
	<p># 4 Improving Endocrinology Referrals</p> <p>Meaningful Use: Care Coordination</p> <p>Description: This use case features a patient with a PHR being referred from their PCP to an endocrinologist to investigate an enlarged Thyroid gland. The scenario also demonstrates the ability to share patient information and relevant care documents and/or photos across multiple care provider systems and then provide the information from the care events to the patient.</p> <p><i>Participating in this use case are Allscripts, eClinicalworks, Epic, MCS, MIE Sage, and No More Clipboard.</i></p>
	<p># 5 Remote Monitoring for Hypertension Care</p> <p>Meaningful Use: Engaging Patients & Family</p> <p>Description: This use case features a remote monitoring device providing patient updates to their PCP. The PCP uses their EMR to prescribe medications for the patient to pick up at pharmacy as well as referenced within the patient's PHR. The scenario demonstrates the ability for providers to proactively and efficiently manage a patient's well being through the use of home care devices and electronic medication prescribing.</p> <p><i>Participating in this use case are Continua, FIS, and MIE.</i></p>

41 The Virtual Lifetime Electronic Record (VLER)

Department of Defense, Department of Veterans Affairs, Kaiser Permanente, and MedVirginia

President Barack Obama, along with Defense Secretary Robert M. Gates and VA Secretary Eric Shinseki, announced the Virtual Lifetime Electronic Record (VLER) initiative in April 2009 to enhance the continuity of care for our Service men and women by ensuring that electronic records will transition along with them and remain with them forever. VLER will result in increased information available to clinicians and healthcare organizations, which will in turn improve the continuity of services and care for our Service Members and Veterans. Initially, VLER will permit authorized users to share health information and eventually enable sharing of electronic health, benefits and administrative information for Service Members and Veterans. This demonstration will highlight progress being made toward achieving interoperability within the VLER initiative.

42 Authorized Release of Information to a Trusted Entity

Kaiser Permanente, MedVirginia and Social Security Administration

The demonstration will show how the Social Security Administration requests information from medical providers (Kaiser Permanente and MedVirginia) based on authorization to release information and receives the information using the Nationwide Health Information Network. The information flow is seamless and does not require any human intervention. This exchange of information dramatically reduces the time required for the exchange compared to the traditional process.

43 Direct Project Tour

During this tour, attendees will see a variety of uses for the Direct Project, an initiative created by the Office of the National Coordinator for Health IT (ONC). Launched in March 2010 as a part of the Nationwide Health Information Network, the Direct Project was created to specify a simple, secure, scalable, standards-based way for participants to send authenticated, encrypted health information directly to known, trusted recipients over the Internet.

Care Collaboration: Connecting the Hospital, Physicians, and Patients *Medical Professional Services, Inc.*

Consultation, Referral and Result Exchange through Direct Messaging *Department of Veterans Affairs and CareSpark*

Direct Exchange Using Certificate Authority Supporting Medical Home *MedVirginia*

Direct Project and CONNECT Working together In California HIE *Redwood MedNet*

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Immunization Submission *The Direct Project*

Hudson Valley Direct Project Supporting Care Coordination *Albany Medical Center, Asthma and Allergy Associates of Westchester, Community*

Traveling Wilburys – Continuous Care DIRECT from Wine Country *HealthBridge*

Wisconsin HIE Secure Messaging and Directory Services *Wisconsin Statewide Health Information Network, Inc., Wisconsin Health Information Exchange, and Wisconsin Department of Health Services*

45 CONNECT EHR Interoperability Special Interest Group Tour

To support secure and easy-to-implement health information exchange among physicians, patients, labs and pharmacies, the Federal Health Architecture's CONNECT open source software program created the Electronic Health Record Interoperability Special Interest Group (EHRI SIG). The EHRI SIG is working to ensure the interoperability requirements for EHR and related solutions are successfully incorporated into CONNECT as it continues to evolve to focus on the end-user experience. This tour's demonstrations will illustrate the work currently underway through the EHRI SIG.

Positive Impact of Multiple Input Devices for EHR Adoption *Department of Veterans Affairs*

Continuity of Care in the Emergency Department *WakeMed Hospitals*

Open Source Behavioral Health Information Technology Architecture (OBHITA) *Substance Abuse and Mental Health Services Administration (SAMHSA)*

Interoperable PHR CONNECTs Cancer Patients, Providers and Payers *Rocky Mountain Health Plans (RMHP) and Denver Health Medical Center (DH)*

46 U.S. Army TATRC Tour #1

The U.S. Army Telemedicine and Advanced Technology Research Center has partnered with organizations in the public and private sector to advance health information exchange to improve patient care while protecting patient information and identity. This tour includes demonstrations highlighting TATRC and its partners' collaborative work.

Integrating Patient Demographics Using an Extensible EMPI; Visualization of Medical Resources for Emergency Decision Support; Provider-to-Provider Interoperability through a Health Information Services Exchange

47 U.S. Army TATRC Tour #2

The U.S. Army Telemedicine and Advanced Technology Research Center and its partner organizations in the public and private sector are participating in demonstrations to illustrate their work in advancing health information exchange to improve patient care.

Health Information Exchange with Federal Partners Through NHIN *Conemaugh Health System, U.S. Army Medical Research and Material Command; (USAMRMC), Telemedicine and Advanced Technology Research Center (TATRC)*

Distributed Decision Support Services and Knowledge Management Repository *Naval Health Research Center and the U.S. Army Medical Research and Material Command (USAMRMC), Telemedicine and Advanced Technology Research Center (TATRC)*

Patient Education Via HL7 Infobutton Request Over NHIN *U.S. Army Medical Research and Material Command (USAMRMC), Telemedicine and Advanced Technology Research Center (TATRC)*

48 Nationwide Health Information Network Tour for Organizations of All Sized in the Public and Private Sector

A broad range of organizations have implemented Nationwide Health Information Network standards in order to achieve health IT interoperability. This tour will highlight organizations in the public and private sectors – from very small organizations such as a 19 bed hospital in Nebraska, to large organizations such as the Centers for Medicare & Medicaid Services.

Nebraska College Student's Life Saved Using CONNECT Gateway *Thayer County Health Services* Leveraging EHRs to Improve Quality of Member Care *AmeriHealth Mercy and Independence Blue Cross*

Enhancing Tribal Care Coordination *Indian Health Service*

Electronic Submission of Medical Documentation to Medicare *Centers for Medicare & Medicaid Services*

For more information about the HIMSS Interoperability Showcase™, please visit our website at <http://www.himssconference.org/showcase> or email us at interoperabilityshowcase@himss.org.