

Shared Health, Tennessee a Case Study in Health Information Exchange

Improvements

- Costs: 17%
- Child Screening: 10%
- Flu Vaccination: 13%
- Colon Screening: 8%
- Mammography: 5%

Case Study Summary

- Three Million Patients
- 8000 Clinicians
- Self-development
- Multiple vendors
- Cost Reduction
- Quality Improvement
- CCD, HITSP and NHIN

Shared Health supplies patient care information support for three million patients to over 8000 clinicians. The results of this support, in a longitudinal study of 102 practices, included a 17% reduction in costs, mostly related to pharmacy, lab, imaging, and facility charges. In addition, comparison studies with non-Shared Health supported practices included improved child wellness screening (10.3%), flu vaccination rates (13.2%), colon cancer screening (7.7%), and mammography screening (5.1%).

Case Study Abstract

Shared Health supplies patient care information support for three million patients to over 8000 clinicians. In order to provide this patient care support to clinicians, Shared Health utilizes software self-development initiatives in addition to products from multiple vendors. The results of this support, in a longitudinal study of 102 practices, included a 17% reduction in costs, mostly related to pharmacy, lab, imaging, and facility charges. In addition, comparison studies with non-Shared Health supported practices included improved Child Wellness Screening (10.3%), Flu Vaccination Rates (13.2%), Colon Cancer Screening (7.7%), and Mammography Screening (5.1%). Shared Health is now introducing additional initiatives based on HITSP standards and NHIN communications, specifically in the area of CCD support and CMS Quality Oracle Marketing now requires that you make it easy for search engines to list your brief document in search results, by identifying the likely words or phrases a customer might enter as a search term. Follow the guidelines below to identify keywords and optimize your white paper for search engines.

Shared Health, the Organization

The mission of Shared Health is to help improve the quality of health care by securely connecting medical information across a patient's network of clinicians, and empowering patients with access to their own health information.

Oracle at Shared Health

Oracle Fusion products provide the glue that enables multiple vendors to participate in the Shared Health HIE solution.

- Oracle SOA Suite provides adaptive business process support to Shared Health and is key to transformation and communication of source system data into HITSP standard formats
- Oracle Identity Manager manages user authentication and privileges that enable the implementation of HIPAA controls
- Oracle Healthcare Transaction Base data repository is a SOA service endpoint application that provides persistence and HITSP standards support to clinical and administrative data from diverse source systems
- Oracle technology provides the foundation for the Shared Health solution including business process support, identity management, clinical data semantic transformation and HITSP standards support.

Shared Health Governance

Shared Health, Inc. operates as a subsidiary of BlueCross BlueShield of Tennessee, Inc. (BCBST) and operational support is received from multiple payers including BCBST, Tennessee Medicaid (TennCare), and payers in other states. Privacy and security of patient data are managed through a set of strong, HIPAA-compliant policies, contracts, and technology-based protections permeating the Shared Health organization, Shared Health business partners, and the healthcare providers where care is delivered. Shared Health utilizes data centers in both Ohio and Tennessee for this business.

Shared Health Technology Partner

Through self-development and system integration tooling provided by Oracle, Shared Health leverages software and services from multiple vendors in order to support provider patient care activities. These vendors include:

- Allscripts for electronic prescribing
- Initiate for master patient index (MPI)
- MEDai for evidence-based compliance and gap analysis
- Oracle for fusing disparate vendors into an integrated and interoperable solution (see sidebar)
- Orion Health for portal displays
- IBM for data center hosting services

In addition, a key focus of evolving Shared Health information delivery technology includes supplying longitudinal clinical summary information, including Alerts and Care Opportunities both in a provider portal and from within the native EHR used by clinician customers. This effort expands the number of vendors that Shared Health is able to support in a tightly integrated manner for their provider customer base. In order to supply longitudinal clinical summary information, Shared Health generates the HL7 Continuity of Care Document (CCD) in ways that can be viewed by their customer clinicians, depending on the local EHR capabilities present. Specifically, the US HITSP version of the CCD, called the C32 by HITSP, is the electronic document type generated by Oracle HTB for this effort.

Shared Health, Lowered Costs and Improved Patient Screening

Shared Health's goal has always been to provide physicians at the point of care with a panoramic view of actionable information from the entire delivery system in order to transform care. In a study using Episode Treatment Groups (ETGs) to examine care in 102 high-user practices, Shared Health compared costs treating chronic conditions the year prior to introducing Shared Health support to clinicians with the year after introduction of Shared Health support. Results demonstrated a 17 percent efficiency improvement (lower cost) in the Shared Health year (Figure 1). Savings were attributed to lower costs in ancillary (lab and imaging), pharmacy and facility (Figure 2).

More recently, in 2007 Shared Health followed treatment patterns in several case study practices using the Shared Health HIE and applications. Our analysts compared patients treated with the assistance of Shared Health with those who were not. Our results were very encouraging on several quality and cost functions (Table 1):

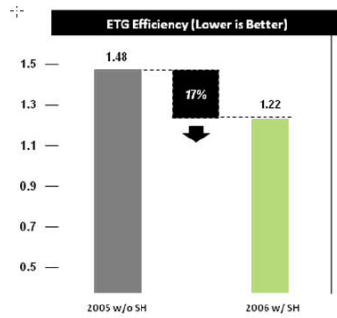


Figure 1

17% improvement in efficiency with Shared Health CHR

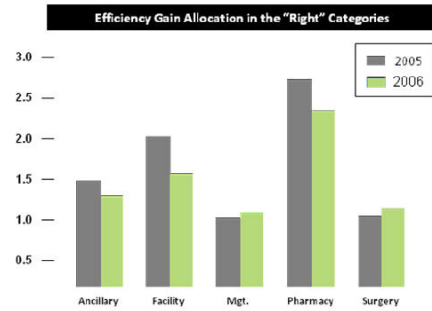


Figure 2

Efficiency improvements noted in areas of lab and imaging, inpatient and facility costs and medications

Table 1

METRIC	CHANGE
Child Wellness Screening	10.3% Increase
Services Performed During ED Visits	40% Fewer
Costs per ED Visit	21% Less
Generic Prescribing	16% Improvement
Cost per Prescription	\$8.00 Less
Mammography Screening	5.1% Improvement
Colon Cancer Screening	7.7% Improvement
Flu Vaccination Rates	13.2% Improvement

Shared Health, the CCD Project.

With the selection of the HL7 Continuity of Care Document (CCD) by the US Federal Government as the foundation of US Health Information Exchange, Shared Health has begun to implement the CCD longitudinal clinical care summary for a 300 physician Independent Practice Association (IPA).

Shared Health generates the CCD from the Oracle Healthcare Transaction Base (HTB) data repository. The sources of the data for the CCD include feeds from payer organizations....

For the IPA, a "lowest common technology denominator" was required that supported all types of practices. Accordingly, Shared Health designed a way to deliver CCD viewing to practices without an EHR in place in addition to those with currently active systems.

For practices with electronic access, the clinical summary can be viewed by clicking on a link to the Shared Health display from within the local system. For practices that depend on fax, the CCD can be transformed into a PDF and faxed in batch mode the night before.

The clinical view of the CCD appears as illustrated in Figure 3:



Continuity of Care Document (CCD)

Created On: July 28, 2009

Patient:	[REDACTED]	Member ID:	[REDACTED]
DOB:	[REDACTED]	Sex:	[REDACTED]
Address:	[REDACTED]	Phone:	[REDACTED]

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Vital Signs

Date	Height	Weight	BMI	BP Systolic (mmHg)	BP Diastolic (mmHg)	Temperature	Pulse Rate (beats/min)	Resp Rate (breath/min)
April 3, 2009	75 inches	150 lbs	18.7	150	60	100 Fahrenheit	20	20

Allergies and Other Adverse Reactions

Substance	Reaction	Date of Onset
Acetaminophen-Codeine #3	O/E - rash present	

Immunizations

Vaccine	Reaction	Administered Date	Administrator
HIB VACC PRP-OMP CONJ 3 DOSE SCHED IM	Encephalopathy	April 6, 2009	
HPV TYP 6 11 16 18 QUADRV 3 DOSE SCHED IM		April 2, 2009	
DTP-HIB IM			

Results

Date	Test	Result
January 10, 2007	BLOOD LEAD	1.00000 MCG/DL

Figure 3: The Shared Health CCD

Shared Health, Quality Reporting and the NHIN

As Shared Health moves into the future, customers are requesting assistance with Federal quality reporting requirements under the US Federal “meaningful use” initiatives. As noted, Shared Health has a wealth of experience in statistical quality analysis for the provider practices Shared Health supports. Currently, Shared Health is leveraging that experience into active participation with US national standards in quality reporting. Shared Health is one of a number of Health Information Exchanges participating in the development of standards-based quality reporting techniques and the communication of quality reporting results over the Nationwide Health Information Network (NHIN).

CONTACT US

To learn more, please visit our website at www.oracle.com/applications/crm or www.oracle.com/us/industries/healthcare or call +1.866.906.7878 to speak to an Oracle representative.

