

# Clarity PSO Learning Series

Topic: Health Information Technology



## Introduction

Health Information Technology (HIT) is everywhere in healthcare; we see it in regular clinical practices such as electronic health records, support devices, websites for medical advice, and communication by and between the patient, physician, and hospitals.

The goal of HIT is to improve the safety, efficiency, and quality of healthcare across settings. When properly integrated into healthcare organizations, HIT can help identify patient safety risks, enable interventions, increase awareness, support faster decision making and ultimately help us predict when care will not be optimal. Organizations like the Office of the National Coordinator (ONC) and the Institute of Medicine (IOM) are therefore calling upon providers to implement and strengthen patient safety initiatives surrounding the use of HIT tools.

To inform and prioritize goals for HIT, the IOM is also calling for providers to conduct more data research on patient safety and the use of HIT. It is important that we identify how these technologies impact patient care and monitor the risks associated with HIT. The Department of Health and Human Services (HHS) and the Office of the National Coordinator for Health Information Technology (ONC-HIT) are encouraging healthcare providers to report events to assist in identifying emerging risks as well as opportunities for patient safety improvement. In the last year ONC-HIT, also announced in its strategy plans that providers are encouraged to use patient safety organizations (PSOs) and the AHRQ Common Formats to become better informed of safety events and HIT tools.

The impact of HIT needs to be continually assessed and everyone from technology vendors, government agencies and healthcare providers need to be accountable and share the responsibility of ensuring the safety of our patients.



## What We Learned

In October 2013, Clarity conducted a survey of its clients to learn more about the implementation of HIT within their facilities. 50 facilities took part in the survey. Below is a summary of what we learned:

- 100% of respondents used some form of HIT
- 32% stated that paper/traditional written format was currently used for patient documentation
- 90% used a form of EHR in their organization
- The top three components of EHR were: lab results, electronic medication administration record (eMAR), and clinical notes

- The two least used EHR components were: best practice clinical resources and computerized physician order entry (CPOE)
- Approximately 1/3 (32.25%) of respondents included clinical decision support systems for the medication process in the EHR
- The top two other technologies used were internet access for resources and telemedicine
- 58% used a medication dispensing system and smart pumps for IV administration
- 71% used barcoding technology, primarily for scanning the medication package and patient ID band (see graph below)



- 39% acknowledged situations where a medication was unable to adapt to barcode scanning technology
- 55% experienced medication errors resulting from HIT in the administration process and errors were primarily tracked through an incident reporting system
- 71% of respondents' EHR interfaced with other departments within their organization
- Only 29% of respondents' EHR could interface with outside facilities within their organization
- The primary method of updating provider HIT competency
  - As needed (39%)
  - Blank (29%)
  - Annually/bi-annually (13%)
- The primary method of providing education regarding updates to HIT systems was through email notification (61%) and hands-on training (45%)
- HIT updates occurred at the discretion of the HIT provider (68%); 30% of respondents left this category blank

## Recommendations

Based on our knowledge of HIT and the results of the survey, we suggest using the following resources and recommendations as you consider expanding HIT within your organization.

### **Government Incentive Resources**

- American Association of Medical Colleges - [Summary of HIT Hospital Incentives and Reductions in American Recovery and Reinvestment Act \(ARRA\) of 2009](#)

- Centers for Medicare & Medicaid Services - [The official website for the Medicare and Medicaid Electronic Health Records \(EHR\) Incentive Programs](#)

### ***HIT Integration Resources***

#### **ONC:**

- The ONC-HIT released their HIT patient safety action and surveillance plan on July 2, 2013 with two fundamental objectives:
  - To promote the healthcare industry's use of HIT to make care safer
  - To continuously improve the safety of HIT

The [plan](#) identifies actions that HHS and private stakeholders can do to improve safety

- [How to Identify and Address Unsafe Conditions Associated with Health IT](#)
- [Safety Assurance Factors for EHR Resilience \(SAFER\) Guide](#)

#### **National Institute of Standards and Technology (NIST):**

- [Usability in Health IT: Technical Strategy, Research, and Implementation](#)
- [NIST Guide to the Processes Approach for Improving the Usability of Electronic Health Records](#)

#### **AHRQ:**

- [AHRQ Health IT Evaluation Toolkit \(2009\)](#) - guide intended to help lay the foundation for identifying health IT hazards
- [AHRQ Health IT Evaluation Measures](#)

### ***Encourage User Event Reporting***

- Implement an effective event reporting system
- Culture to support event reporting and near miss events as well as unsafe conditions (leadership commitment, transparency, education, resources, open communication, staff empowerment)
- Incorporation of the AHRQ Common Formats into event reporting for standardizing data toward a national benchmarking of events
- Participation in a patient safety organization (PSO) where learning from error is fostered through a framework that collects/shares data for the purposes of learning within a legally protected, confidential and protected environment
- Aggregation and analysis of data to understand patterns, trends within an organization or unit driving patient safety activities
- Always consider the role of HIT in reported events; often times HIT errors are embedded within another category, e.g., barcoding malfunction with medication error is reported as a medication error only

As you move forward with HIT integration, it is important that you take the time to do a thoughtful assessment of your organization and create a plan for HIT infrastructure, rollout and surveillance. There needs to be an understanding and evaluation of the functionality of HIT, including risks or unintended consequences that are continuously reported, monitored, measured, and analyzed with timely follow-up. Feedback from every area of the care delivery system is critical, and HIT will only be effective if it is meaningful to the people who use it.

## [Reference List](#)

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To learn more about Clarity PSO, [contact us](#) or visit our [website](#)

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