**AHIMA Standards Team Project Plan 2016**

**Project Title:** Information Governance (IG) Standards Project: HIT Standards for HIM Practices

**Project Timeline:** January – December 2016

**Project Leads:** Diana Warner, Harry Rhodes, Anna Orlova

**PROJECT OVERVIEW**

Built upon the established collaboration with the Integrating the Healthcare Enterprise (IHE) – a collaborative of health information technology (HIT) vendors, users and associations of healthcare professionals to develop interoperability standards – AHIMA will continue working with vendors guiding the development of functional standards to support health information management (HIM) practices. (See Attachment 1 on IHE approach for developing interoperability standards.) In 2016, this continued effort will focus on

1. ***Standardizing HIM business practices*** in collaboration with HIM professionals and
2. ***Reviewing selected IHE standards*** to assess their capability to support HIM practices in collaboration with standard developers and vendors; and
3. ***Building knowledge about HIM and HIT standards among AHIMA members*** by developing and delivering communication, outreach and marketing (COM) activities on standards and systems interoperability.

More specifically, 2016 AHIMA-IHE collaboration will be focused on standardizing HIM practices for the five use cases selected by HIM subject matter experts (SME) from the Standards Taskforce as follows: 1-patient registration, 2-patient matching, 3-transition of care, 4-copy and paste, and 5-data quality. These five use cases will be added to the five use cases developed in 2015.

**NEED AND EFFORTS TO DATE**

Today, both HIM professionals and clinicians have been experiencing overwhelming challenges with usability of the electronic health records (EHR) systems due to shortcomings in supporting user needs.[[1]](#footnote-1),[[2]](#footnote-2),[[3]](#footnote-3),[[4]](#footnote-4), A five-year study recently published by the US National Institute of Standards and Technology (NIST), on usability of EHR systems[[5]](#footnote-5) identified the following four issues with adoption that may negatively impact patient safety:

1. Clinically relevant information is not available at the task at hand
2. Inadequate documentation
3. Inaccurate information and
4. Irretrievable information.

To address user needs with HIT adoption, AHIMA has been leading the development of best practices and guidelines for information management and information governance as a part of a new globally-focused AHIMA initiative on Information Governance (IG).[[6]](#footnote-6),[[7]](#footnote-7),[[8]](#footnote-8) The IG initiative provides an organization-wide framework for managing information throughout its lifecycle, while, supporting the organization’s strategy, operations, regulatory, legal, risk, and environmental requirements. The AHIMA IG Initiative – a key component of AHIMA's overall strategy to develop guidelines, operating rules and standards for healthcare documentation practices – served as a foundation for the AHIMA-IHE collaborative activities in 2015, which resulted in publication of the AHIMA-IHE white paper “Health IT Standards for HIM Practices” (<http://qrs.ly/lb4vec0>). This white paper specified a collaborative informatics-based approach for translating HIM practices into HIT standards as shown on Figure 1 below.

**Approach**



 **IG Principles in Healthcare | Use Cases for Standards**

Figure 1. Approach for Guiding the Development of HIT Standards to Support HIM Practices

(Source: AHIMA-IHE White Paper, 2015)

Our approach includes the following four steps:

1. HIM business requirements were specified by principle based on the eight AHIMA IG principles in healthcare (information availability, integrity, protection, accountability, transparency, compliance, retention and disposition);[[9]](#footnote-9)
2. A literature review enabled generation of checklist(s) of best HIM practices for each requirement;
3. A Requirement Analysis allowed deriving use cases to specify both clinical work processes and needed capabilities of HIT products; and
4. Use cases served as a guidance for the development of HIT standards.

**PROJECT GOAL**

The goal of this project is to guide the development of standards for interoperable HIT systems, so that these systems provide sufficient support for HIM practices.

 **APPROACH**

In 2016, we will continue to use the same informatics-based approach developed in 2015 (Figure 1). We will also continue to deploy Requirement Analysis methodology to specify functional requirements for HIT systems for specific use cases.

**Objectives, partners, SCOPE, Activities, deliverables and Timeframe**

Objectives and Activities

This project will focus on the following three objectives:

1. ***Standardize HIM business practices*** in collaboration with HIM professionals and
2. ***Review selected IHE standards*** to assess their capability to support HIM practices in collaboration with standards developers and vendors; and
3. ***Build knowledge about HIM and HIT standards among AHIMA members*** by developing and delivering COM activities on standards and systems interoperability.

Sections that follow describe specific activities by objective.

*Objective 1 - Standardize HIM Business Practices*. Business requirements for the three of eight IG principles *(information availability, integrity and protection)* were specified in the AHIMA-IHE White Paper in 2015. In 2016, we will complete specification for ***business requirements*** for the remaining five IG principles (*information accountability, transparency, compliance, retention and disposition*). Table 1 shows completed and future efforts for specifying business requirements.

Table 1. Business Requirements Specified by IG Principle[[10]](#footnote-10)

|  |
| --- |
| Information Governance Principles: Business Requirements  |
| 2015  | 2016 |
| 1. Information availability
2. Information integrity
3. Information protection
 | 1. Information accountability
2. Information compliance
3. Information transparency
4. Information retention
5. Information disposition
 |

For each business requirement, we will further differentiate work processes conducted by clinicians and/or HIM professionals (business actors) from those carried out by (or with the support of) the HIT products (technical actors). The resulting requirements will generate

1. A ***HIM Practice Checklist*** of best practices for all business actors, i.e., *business standards*;
2. ***Use Cases*** of functional requirements for HIT systems (technical actors) to support HIM practices.

The latter will guide standardization of HIT capabilities that are responsive to HIM needs, i.e., ***HIT standards***. Table 2 shows use cases specified in 2015 AHIMA-IHE White Paper and those to be developed in 2016.

Table 2. Use Cases for HIT Standards

|  |
| --- |
| Use Cases for HIT Standards  |
| 2015 AHIMA-IHE White Paper | 2016 Workplan |
| 1. All documents in the episode of care record are accounted for
2. Episode of care record is complete and closed
3. Release of Information (ROI) to external requestor
4. Audit for the episode of care record
5. Audit for the ROI
 | 1. Data quality
2. Copy and paste
3. Patient registration
4. Patient matching
5. Transition of care
 |

Upon completion of the development of the business requirements, HIM practices checklists and use cases (Tables 1 and 2), we then will harmonize these artifacts with the AHIMA Information Governance Adoption Model (IGAM), to supply examples of policies, procedures and controls that organizations should use when implementing and using HIT products… thus assuring IG best practices.

*Objective 2 - Review Selected IHE Standards*. In 2015 we conducted preliminary review of HIM and HIT standards developed by the standards development organizations (SDOs) including Health Level 7 (HL7), ASTM International (ASTM) and the International Organization for Standardization (ISO). The results of this review were presented in 2015 AHIMA-IHE white paper, Attachment D. We also collaborated with the HL7 Community-based Collaborative Care (CBCC) Workgroup to review the *Patient Friendly Consent Directive* standard ballot and *Data Provenance Model*.

In 2016, we will initiate the detail review of selected IHE interoperability standards to assure that they meet HIM business practice requirements (business standards). We will also continue to participate in HL7 to focus on standards development for mobile health and EHR systems as well as in ISO to work on international standards on semantic, technical and functional interoperability standards.

Utilizing our selected use cases (Table 2),the focus of our review will be on those IHE standards related to (a) representation of organizational policies, (b) patient identity management and matching, and (c) privacy choices. Using these criteria, the following IHE standards have been selected for review:

*Representation of organizational policies*

* ***IHE ITI White Paper: Template for Cross-Document Sharing Affinity Domain Deployment Planning***[[11]](#footnote-11) – published in 2008, this white paper describes how organizations need to define policies for successful implementation of document-sharing software applications. The white paper provides a template (inventory) of documentation required to support the specification of implementation decisions and policies plus a list of topics for implementers to utilize in planning for deployment. Policies include documentation management; definitions of business actors (departments, clinicians and their roles) and technical actors (information systems) involved; policies on information exchanges, information privacy and security, coded terminology, and others.

*Patient identity management and matching*

* ***Patient Identifier Cross-Referencing (PIX)***[[12]](#footnote-12) – provides cross-referencing of patient identifiers from multiple entities (domains) participating in information exchange. These patient identifiers can then be used to correlate information about a single patient from independent sources that know the patient by different identifiers.
* ***Patient Demographics Query (PDQ)***[[13]](#footnote-13) – provides ways for multiple distributed applications to query a patient information server for a list of patients, based on search criteria, and then retrieve a patient’s demographic information directly into the application.

IHE has implemented both PIX and PDQ profiles using HL7 Version 2 (V2) and HL7 V3 as the message formats, using simple object access protocol (SOAP)-based web services for transport.

*Privacy choices*

* ***Basic Patient Privacy Consents (BPPC)***[[14]](#footnote-14) – provides a mechanism to record patient privacy consent(s), a method used to to mark documents published to a Cross-Enterprise Document Sharing (XDS) environment with the patient privacy information that was used to authorize the publication. This provides a method for consumers of XDS documents to enforce the privacy consent appropriate to each specified use.
* ***Participate in the development of a n***ew IHE standard, a content profile called “***Advanced Patient Privacy Consents (APPC),***” which addresses patient choices for information sharing during the transition of care.

*Objective 3 - Build Knowledge among AHIMA Members.* Specific communication, outreach and marketing (COM) activities designed to increase knowledge among AHIMA members include:

* Journal Articles
* Press Releases
* Presentations

A detailed COM Plan, including activities and schedules, can be found in Table 3 below.

Partners

To guide project activities, the AHIMA Standards Team will work with HIM SMEs from the AHIMA Standards Taskforce. Nineteen SMEs were engaged in the 2015 AHIMA-IHE project***. From the AHIMA Practice Councils and o***ther voluntary groups we will recruit additional SMEs with the expertise in

1. *legal aspects of information management and use* to work on standards for policy representation in HIT products
2. *patient identity management* to work on patient identification and matching standards
3. *information privacy and security* to work on patient consent standards
4. *clinical documentation improvement (CDI) and coding* to work on terminology standards
5. *data quality and documentation integrity* to work on document management standards
6. *interoperability* to work oninformation sharing standards health information exchanges.

The AHIMA Standards Taskforce will also guide other standards projects (see 2016 Plans for AHIMA Standards Strategy, Content Standardization and ISO projects). In addition, the AHIMA Standards Team will collaborate with the AHIMA IG Taskforce to align project outcomes with the AHIMA Information Governance Adoption Model (IGAM).

Table 3 presents project work plan in 2016 with specific activities, deliverables, participants and timeframe.

Table 3. IG Project Work Plan: 2016

Grey font indicates the work items that will be completed based on resource availability.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2015 Deliverables | 2016 Activities | Deliverables | Stakeholders | AHIMA Team | Timeframe |
| 1. ***Standardizing HIM business practices*** in collaboration with HIM professionals
 |
| Activity 1.1 Validate and Harmonize Business Requirements (Point of Contact (POC): Diana Warner) |
| Business requirements for information1. Availability
2. Integrity
3. Protection
 | A. Develop business requirements for information1. Compliance
2. Accountability
3. Retention
4. Disposition
5. Transparency
 | Five draft business requirement tables |  | Diana, WriterHarry, Anna - Reviewers | Jan 4 |
| B. Review business requirements for information1. Compliance
2. Accountability
3. Retention
4. Disposition
5. Transparency
 | Five final business requirement tables  | Standards Taskforce | Diana, Facilitator | Jan |
| C. Harmonize business requirements with IGAM focusing on Standards Operating Procedures (SOP) competency and Data Governance (Metadata only) competency for1. Information Availability
 | Examples of SOP policies for HIM audience on IGAM (SOP+BR Column I) | Standards Taskforce IG Task Force | Diana, Facilitator  | March |
| D. Develop recommendation for IGAM application to capture business policy examples into the IGAM focusing on SOP and DG competencies for 1. Information Availability
 | Recommendation for IGAM Application | IG TeamStandards Taskforce | Diana, Facilitator | Sept. |
| Activity 1.2. Complete Checklist for Information Availability, Integrity and Protection (POC: Harry Rhodes) |
| HIM Checklist – Started alignment between business requirements and literature review of best practices and selection of use cases1. Availability
2. Integrity
3. Protection
 | A. Update, model/harmonize and validate HIM Checklist Examples for information1. Availability
2. Integrity (based on resource availability)
3. Protection (based on resource availability)
 | Updated Table in Appendix A of the 2015 IHE white paper that contains 1. completed cells that are currently marked TBD,
2. aligned checklists examples by business requirements to validate the appropriateness of multiple examples by requirement and vice versa
 |  | Harry, WriterDiana, Anna, Consultant - Reviewers | Feb |
| B. Review Updated HIM Checklist for information1. Availability
2. Integrity
3. Protection
 | Validated Table | Standards Taskforce | Harry, Facilitator | March |
| C. Harmonize updated HIM Checklist with IGAM focusing on SOP and DG competencies for information 1. Availability
 | Completed SOP+BR IGAM worksheet (column J)  | Standards Taskforce | Harry, Facilitator | June |
| D. Develop recommendation for IGAM application to capture HIM Checklist examples into the IGAM focusing on SOP and DG competencies for 1. Availability
 | Recommendations for IGAM application | IG TeamStandards Taskforce | Harry, Facilitator | Sept. |
| Activity 1.3. Develop Use Cases (POCs: Anna Orlova and Harry Rhodes) |
| Use CasesA1.1 All documents are accounted forA1.2 Records are complete and closedA2.1 Release of informationA3.1 Audit for episode of careA3.2 Audit for release of information and the accounting of disclosures | A. Develop five Use Cases focusing on patient registration and transition of care functions only with the following actions: A01. Define all documents by functionA02 Define data specification by functionA03 Define data representation by each data set by function A04 Define data capture by each document by functionA05 Validate data capture by function | Developed use cases A01-A05 |  | Anna, Harry - WritersDiana, Consultant - Reviewers | June |
| B. Review use cases  | Reviewed use cases A01-A05 | Standards Taskforce | Anna, Harry -Facilitators | June |
| C. Finalize use cases  | Finalized use cases A01-A05 | Standards Taskforce | Anna, Harry - WritersDiana, Reviewer | Aug |
| D. Develop IHE Proposal for 2017 as needed (in coordination with 2.1.F) | IHE 2017 proposal | Standards Taskforce | Anna, Harry -WritersDiana. Reviewer | Sept.15 |
| ***2. Reviewing selected IHE standards*** |
| Activity 2.1. Conduct Standards Gap Analysis (POC: Harry Rhodes) |
| Preliminary Standards Gap Analysis:1. High level review of ASTM, ISO TC215 and HL7 standards
2. Participated in HL7 CCBC workgroup to review patient consent and data provenance standards
 | A. Review *IHE Template for XDS Affinity Domain Deployment Planning White Paper* to assess how AHIMA use cases (A01-A05, A1.1-A3.2), copy and paste, and data quality and other are addressed  | Reviewed IHE Affinity Domain White Paper with recommendations | Standards Taskforce | Harry, FacilitatorConsultant  | July |
| B. Review *IHE Patient Identifier Cross-Reference (PIX) and Patient Demographic Query (PDQ)* profiles for patient registration, patient matching and transition of care functions | Reviewed PIX and PDQ profiles with recommendations | Standards Taskforce,HIE Practice Council, AHIMA Health Safety ID Initiative participants and Other  | Harry, FacilitatorConsultant  | April |
| C. Review *Basic Patient Privacy Consent (BPPC)* profile | Reviewed BPPC profile with recommendations | Standards Taskforce,Privacy and Security Practice Council | Harry, FacilitatorConsultant  | March |
| D. Participate in the development of the *IHE ITI* *Advanced Patient Privacy Consent (APPC)* profile | Contribution into the APPC profile  | Standards Taskforce,Privacy and Security Practice Council | Harry, FacilitatorConsultant, Diana, Anna - Reviewers | Draft - May Comment - July Published –AugTest – Jan 17 |
| E. Participate in the review of 1. IHE and HL7 Mobile Health standards 2. HL7 EHR standards | Recommendations for AHIMA Standards Strategy  | Standards Taskforce | Harry, Diana - LeadsAnna, Reviewer | On-going |
| F. Develop IHE Proposal for 2017 as needed (coordinate with 1.3.D) | IHE 2017 proposal | Standards Taskforce | Anna, Harry, Consultant –WritersDiana, Reviewer | Sept.15 |
| ***3. Build knowledge about HIM and HIT standards among AHIMA members*** (POC: Diana Warner) |
| COM on White paper1. Articles

a. JAHIMA 08/15b. AHIMA Today 09/151. Outreach for Public comment 06/15
2. Press Release 10/15
3. Presentations at

a. AOEb. CDI Summitc. Conventiond. IG Summit | A. Develop and deliver COM plan including1. Articlesa. JAHIMA MH 01/16 b. JAHIMA IG 02/16c. AHIMA Today IG 10/16d. JAHIMA Stds 11/161. Outreach for public comments on IHE APPC profile - June
2. Press Release

a. IHE APPC profile - Sept 1. Presentations

a. AOE b. CDI Summit c. Convention c1. Training workshop c2. Educational session d. IG Summit | A. COM Plan including1. Articles for items a-d1. Outreach for public comments on APPC profile
2. Press Release on IHE APPC
3. Presentations for items a-d
 | Standards Taskforce | Diana, FacilitatorConsultant | A. JanA1.a-d OctA.2 June A.3 SeptA.4 Feb-Oct |

Attachment 1. IHE Approach for Developing Interoperability Standards

The approach employed in the IHE to build interoperability standards, is to assemble and harmonize (resolve gaps and overlaps, if any) existing individual standards in the context of specific interoperability needs. These individual standards are developed by the standards development organizations (SDOs) such as Health Level 7 (HL7), ASTM International (ASTM), Digital Imaging and Communication in Medicine (DICOM), International Organization for Standardization (ISO), Internet Engineering Task Force (IETF), Organization for the Advancement of Structured Information Standards (OASIS) and others. IHE interoperability standards (integration profiles and content profiles) further constrain configuration choices where necessary in individual standards to ensure that they can be used in their respective domains in an integrated manner between different technical actors (information systems). When revisions or extensions to existing standards are necessary, IHE refers recommendations to the relevant standards bodies.

# IHE interoperability standards are maintained under Technical Frameworks (TF) – a conduit of profiles aimed to enable interoperability. Various IHE Committees (domains) produce Technical Frameworks within their respective areas that together form the IHE Technical Framework. IHE develops Technical Frameworks for Anatomic Pathology, Cardiology, Dentistry, Endoscopy, Eye Care, IT Infrastructure, Laboratory, Patient Care Coordination, Patient Care Device, Pharmacy, Quality, Research and Public Health, Radiation Oncology and Radiology domains.

The IHE IT Infrastructure (ITI) Technical Framework[[15]](#footnote-15) identifies a subset of the functional components (technical actors) of the healthcare enterprise, called IHE actors, and specifies their interactions in terms of a set of coordinated, standards-based transactions. The transactions are organized into functional units called integration profiles that highlight their capacity to address specific IT infrastructure requirements. ITI integration profiles are consistent and can be used in conjunction with the profiles of other IHE domains mentioned above. The ITI Technical Framework includes several fundamental profiles such as

* Sharing Value Set (SVS)
* Consistent Time (CT)
* Patient Identifier Cross-referencing (PIX)
* Patient Demographics Query (PDQ)
* Patient Administration Management (PAM)
* Patient Synchronized Applications (PSA)
* Basic Patient Privacy Consents (BPPC)
* Enterprise User Authentication (EUA)
* Cross-Community Access (XCA)
* Cross Enterprise User Assertion (XUA)
* Cross-Enterprise Document Sharing (XDS)
* Cross-Enterprise Document Reliable Interchange (XDR)
* Scanned Documents Integration Profile (XDS-SD)
* Cross-Enterprise Document Media Interchange (XDM)
* Retrieve Information for Display (RID)
* Retrieve Form for Data Capture (RFD)
* Audit Trail and Node Authentication (ATNA) and others.
1. Bowman S. Impact of electronic health record systems on information integrity: Quality and safety implications. Perspectives in Health Information Management. 2013. URL: <http://perspectives.ahima.org/impact-of-electronic-health-record-systems-on-information-integrity-quality-and-safety-implications/#.VU0OLPm6e00> [↑](#footnote-ref-1)
2. Nguyen L, Bellucci E, and Nguyen LT. Electronic health records implementation: An evaluation of information system impact and contingency factors. International Journal of Medical Informatics. 2014. 83(11): 779-796. [↑](#footnote-ref-2)
3. Kuhn T, Basch P, Barr M and Yackel T. Clinical documentation in the 21st century: executive summary of a policy position paper from the American College of Physicians. Annals of Internal Medicine. 2015. URL: <http://scholar.google.com/scholar?hl=en&q=Clinical+Documentation+in+the+21st+Century%3A+Executive+Summary+of+a+Policy+Position+Paper+From+the+American+College+of+Physicians&btnG=&as_sdt=1%2C14&as_sdtp>= [↑](#footnote-ref-3)
4. Bouamrane M and Mair, FS. A study of general practitioners' perspectives on electronic medical records systems in NHS Scotland. BMC Medical Informatics and Decision Making. 2013. 13: 58 URL: <http://search.proquest.com.library.capella.edu/docview/1399741170?pq-origsite=summon> [↑](#footnote-ref-4)
5. US National Institute of Standardization and Technology (NIST). Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records: Empirically Based Use Cases for Validating Safety-Enhanced Usability and Guidelines for Standardization. NISTIR 7804-1. URL: <http://nvlpubs.nist.gov/nistpubs/ir/2015/NIST.IR.7804-1.pdf> [↑](#footnote-ref-5)
6. American Health Information Management Association (AHIMA). Information Governance Principles for Healthcare (IGPHC). Chicago, IL. 2014. URL: <http://www.ahima.org/~/media/AHIMA/Files/HIM-Trends/IG_Principles.ashx> [↑](#footnote-ref-6)
7. American Health Information Management Association (AHIMA). Information Governance (IG) Infographic – What is IG? Chicago, IL. 2014. URL: <http://www.ahima.org/~/media/AHIMA/Files/HIM-Trends/IG_Infographic.ashx> [↑](#footnote-ref-7)
8. Cohasset Associates and American Health Information Management Association (AHIMA). Professional Readiness and Opportunity. Information Governance in Healthcare White Paper. Minneapolis, MN. 2015. URL: <http://www.ahima.org/~/media/AHIMA/Files/HIM-Trends/IGSurveyWhitePaperCR_7_27.ashx?la=en> [↑](#footnote-ref-8)
9. American Health Information Management Association (AHIMA). Information Governance Principles for Healthcare (IGPHC). Chicago, IL. 2014. URL: <http://www.ahima.org/~/media/AHIMA/Files/HIM-Trends/IG_Principles.ashx> [↑](#footnote-ref-9)
10. Ibid. [↑](#footnote-ref-10)
11. Integrating the Healthcare Enterprise (IHE), IT Infrastructure (ITI) Committee. White Paper: Template for Cross-Document Sharing (XDS) Affinity Domain Deployment Planning. 2008. URL: <http://www.ihe.net/Technical_Framework/upload/IHE_ITI_White_Paper_XDS_Affinity_Domain_Template_TI_2008-12-02.pdf> [↑](#footnote-ref-11)
12. Integrating the Healthcare Enterprise (IHE), ITI Technical Framework Supplement. Patient Identifier Cross-Reference HL7 V3 (PIXV3) and Patient Demographic Query HL7 V3 15 (PDQV3).Trial Implementation.2010.URL:

<http://www.ihe.net/Technical_Framework/upload/IHE_ITI_Suppl_PIX_PDQ_HL7v3_Rev2-1_TI_2010-08-10.pdf> [↑](#footnote-ref-12)
13. Ibid. [↑](#footnote-ref-13)
14. Integrating the Healthcare Enterprise (IHE), Patient Care Coordination (PCC) Technical Framework Supplement. Basic Patient Privacy Consents (BPPC) Trial Implementation Version. URL: <http://www.ihe.net/Technical_Framework/upload/IHE_PCC_TF_BPPC_Basic_Patient_Privacy_Consents_20060810.pdf> [↑](#footnote-ref-14)
15. Integrating the Healthcare Enterprise (IHE). Information technology Infrastructure (ITI Technical Framework.URL: <http://www.ihe.net/Technical_Frameworks/#IT> [↑](#footnote-ref-15)