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Version 1.0

HITSP Communicate Quality Measure Data Capability

HITSP/CAP129

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FIGURES AND TABLES

1.0 INTRODUCTION

This Healthcare Information Technology Standards Panel (HITSP) document is divided into Requirements Analysis, External Capability Options, Design Specifications and Standards sections which may be used by analysts, architects and implementers. Analysts refer to this document to determine if the Capability satisfies their requirements. Architects and system implementers refer to this document as the architectural specifications for a system design, while software developers will use a Capability as the source of the design for interoperable information exchange. The Appendix lists requirements satisfied by this Capability.

All sections may be useful to analysts and architects. However as shown in Table 1-1, different readers may find specific sections of greater interest and utility. This table is provided as an aid to readers to assist them in identifying sections to focus on. Readers are encouraged to review all sections of this document to further their understanding of HITSP's work.

Table 1-1 Reader's Guide for Capability

Document Section	Section Number	Intended Audience	Information Contained
Section 2.0 Requirements Analysis	2.1 Introduction	Policy Managers Policy Analysts Executive Leadership	Provides an overview of the requirements which this Capability addresses, and identifies the system roles supported by the Capability
	2.2 Requirements	Program Managers Policy Analysts Executive Leadership Architects Business Analysts	Defines the actual information exchanges supported by the Capability in terms of exchange actions and exchange content. It shows how these roles can be assigned at a higher level to real world systems, such as an Electronic Health Record
Section 3.0 External Capability Options	3.1 Security and Privacy	Policy Analysts Architects Business Analysts Developers	Describes the integrated and optional security and privacy functions supported by the Capability
	3.2 Information Exchange Options	Architects Business Analysts Developers	Describes the external information exchange options associated with topology, or message and document content, as applicable
Section 4.0 Design Specification	4.1 Requirements Mapped to Constructs	Program Managers Architects Business Analysts Developers	Maps the information exchanges developed in requirements to the actual HITSP construct used by the Capability to support the exchange
	4.2 Constraints and Assumptions	Business Analysts Developers	Lists the context that is necessary to use the Capability, including constraints, assumptions, pre-conditions, post-conditions and triggers
	4.3 Specified Interfaces by System Role	Business Analysts Developers	Identifies the constructs and their interfaces assigned to each system role. It also lists the implementation conditions for use
Section 5.0 Standards	5.1 Standards Used	Program Managers Policy Analysts Architects Business Analysts Developers	Lists regulatory guidance, selected standards and informative references used by the Capability and all its supporting constructs
	5.2 Standards Gaps and Overlaps	Program Managers Policy Analysts Architects Business Analysts Developers	Identifies gaps or overlaps in standards to implement the Capability including a plan to resolve issues

1.1 CAPABILITY OVERVIEW

This Capability addresses interoperability to support hospital and clinician collection and communication of patient encounter data to support the analysis needed to identify a clinician or hospital's results relative to an EHR-compatible, standards-based quality measure.

Quality measure data may include:

- Patient-level clinical detail from which to compute quality measures. Patient level clinical data are compiled from both the local systems and from longitudinal data available through other sources such as a Health Information Exchange (HIE)
- Patient-level quality data based upon clinical detail. The "patient-level quality data reports" are exported from EHRs or quality-monitoring applications at the point of care

This Capability may use content anonymization. Pseudonymization, if needed, is supported by HITSP/CAP138 Retrieve Pseudonym.

This Capability may use Value Set Sharing.

1.2 SCOPE

A Capability enables business and policy requirements for a business need to be implemented through information exchanges specified in HITSP constructs. The objective of a Capability is to provide the bridge between the business, policy and implementation disciplines by defining a set of information exchanges at a level relevant to policy and business decisions and specifying the use of HITSP constructs sufficiently for implementation. A Capability supports stakeholder requirements and business processes and includes information content, infrastructure, security and privacy. The design of Capabilities leverages existing HITSP constructs and communication methodologies. As new constructs become available, the scope of this Capability may be extended.

1.3 COPYRIGHT PERMISSIONS

1.4 REFERENCE DOCUMENTS

A list of key reference documents and background material is provided in the table below. These documents can be retrieved from HITSP Web Site.

Table 1-2 Reference Documents

Reference Documents	Document Description
HITSP Acronyms List	Lists and defines the acronyms used in this document
HITSP Glossary	Provides definitions for relevant terms used by HITSP documents
TN900 – Security and Privacy	TN900 is a reference document that provides the overall context for use of the HITSP Security and Privacy constructs
TN903 – Data Architecture	TN903 is a reference document that provides the overall context for use of the HITSP Data Architecture constructs
TN904 – Harmonization Framework and Exchange Architecture	TN904 is a reference document that provides the overall context for use of the HITSP Harmonization Framework and Exchange Architecture constructs

1.5 GUIDANCE FOR USE OF A CAPABILITY

NOTE: For questions related to details on HITSP Capabilities and HITSP System Roles, please refer to HITSP/TN904 Harmonization Framework and Exchange Architecture Technical Note.

To use a HITSP Capability, a HITSP Interoperability Specification or an implementation conformance statement must assign specific systems to one or more HITSP Capability System Roles and identify how the HITSP Capability Options are to be addressed. In order to assign systems to HITSP System Roles, the reader uses Table 2-3 Supported Information Exchanges to determine what systems can support the specific information exchanges required. For an example of how HITSP System Roles and systems are mapped, readers can consult a HITSP Interoperability Specification Table 3-3 Orchestration of Capabilities by System. In the case of an Implementation Guide, systems can be assigned to HITSP System Roles using a similar methodology.

The use of a HITSP Capability implies that these specific rules will be followed:

- For each HITSP Capability System Role listed in Table 2-2 Capability System Roles, the defined responsibilities of that HITSP Capability System Role are supported. Responsibilities for the HITSP Capability System Role are defined as support for the HITSP Construct interfaces listed in Section 4.3 Specified Interfaces by System Role. Support implies that the system assigned to the HITSP Capability System Role makes the associated HITSP construct interfaces available for use by other systems. For those HITSP construct interfaces in Section 4.3 that have associated content optionality, the HITSP Capability System Role must comply with the optionality condition listed in Table 4-10 Implementation Conditions.
- Responsibilities also include the constraints and assumptions associated with use of a Capability, as outlined in Table 4-3 Context. For those Capabilities with Section 3.2 options, the following additional rules apply:

1. Each topology option listed in Table 3-2 Topology Related Options should be supported by the implementation
2. Each content import option listed in Table 3-3 Content Import Options should be supported by the implementation
3. Each document content option listed in Table 3-4 Document Content Options should be supported by the implementation
   1.

2.0 REQUIREMENTS ANALYSIS

The following table is provided as an aid to readers to assist them in identifying the parts of this section to focus on. Readers are encouraged to review all sections of this document to further their understanding of HITSP's work.

Table 2-1 Reader's Guide for Section 2.0

Document Section	Section Number	Intended Audience	Information Contained
Section 2.0 Requirements Analysis	2.1 Introduction	Policy Managers Policy Analysts Executive Leadership	Provides an overview of the requirements which this Capability addresses, and identifies the system roles supported by the Capability
	2.2 Requirements	Program Managers Policy Analysts Executive Leadership Architects Business Analysts	Defines the actual information exchanges supported by the Capability in terms of exchange actions and exchange content. It shows how these roles can be assigned at a higher level to real world systems, such as an Electronic Health Record

2.1 INTRODUCTION

Table 2-2 summarizes the system roles of the Capability. Section 2.2 identifies how these system roles participate in the set of information exchanges.

Table 2-2 Capability System Roles

System Role	System Role Definition
Message Sender	The system that responds to a request by sending a patient-level quality data message
Message Receiver	The system which receives the patient-level quality data message
Document Registry	The system which registers the Patient Level Quality Data Document within a repository and which responds to a query for documents
Document Repository	The system which stores a copy of the Patient Level Quality Data Document and forwards the document upon request
Document Source	The system that generates the Patient Level Quality document
Document Consumer	The system that receives/retrieves the Patient Level Quality document
Initiating HIE	HIE requesting infrastructure services supporting sharing of health information
Responding HIE	HIE providing infrastructure services supporting sharing of health information

2.2 REQUIREMENTS

2.2.1 INFORMATION EXCHANGES

Table 2-3 defines each of the Information Exchanges supported by this Capability in terms of the Exchange Action (EA) or Exchange Content (EC) used.

Table 2-3 Supported Information Exchanges

Information Exchange Identifier	Exchange Action	Exchange Content
A	Request/Response	Patient Level Quality Data Message
B	Send	Patient Level Quality Document

Information Exchange Identifier	Exchange Action	Exchange Content
C	Request & Response	Patient Level Quality Document

Figure 2-1 identifies how this Capability supports various system roles within multiple system architectures. For example, either an Electronic Health Record (EHR) system or a Health Information Exchange (HIE) might fill a document repository system role in an information exchange). In an implementation architecture, system roles may be combined locally (e.g., Hospital EHR System) and in others, the system roles may be provided by multiple-distributed trusted third parties (e.g., pharmacies within an HIE).

Figure 2-1 Information Exchanges Between System Roles

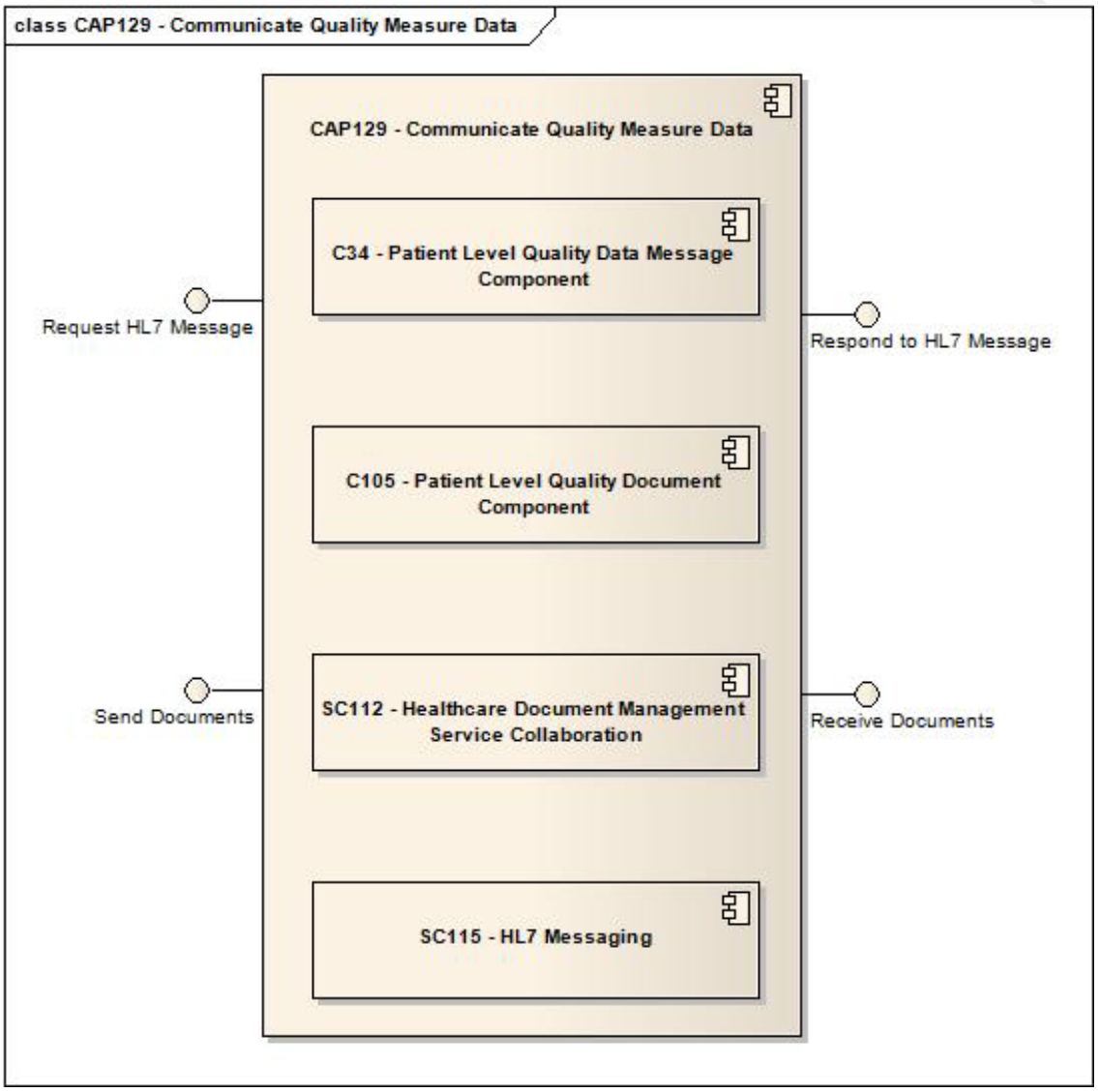
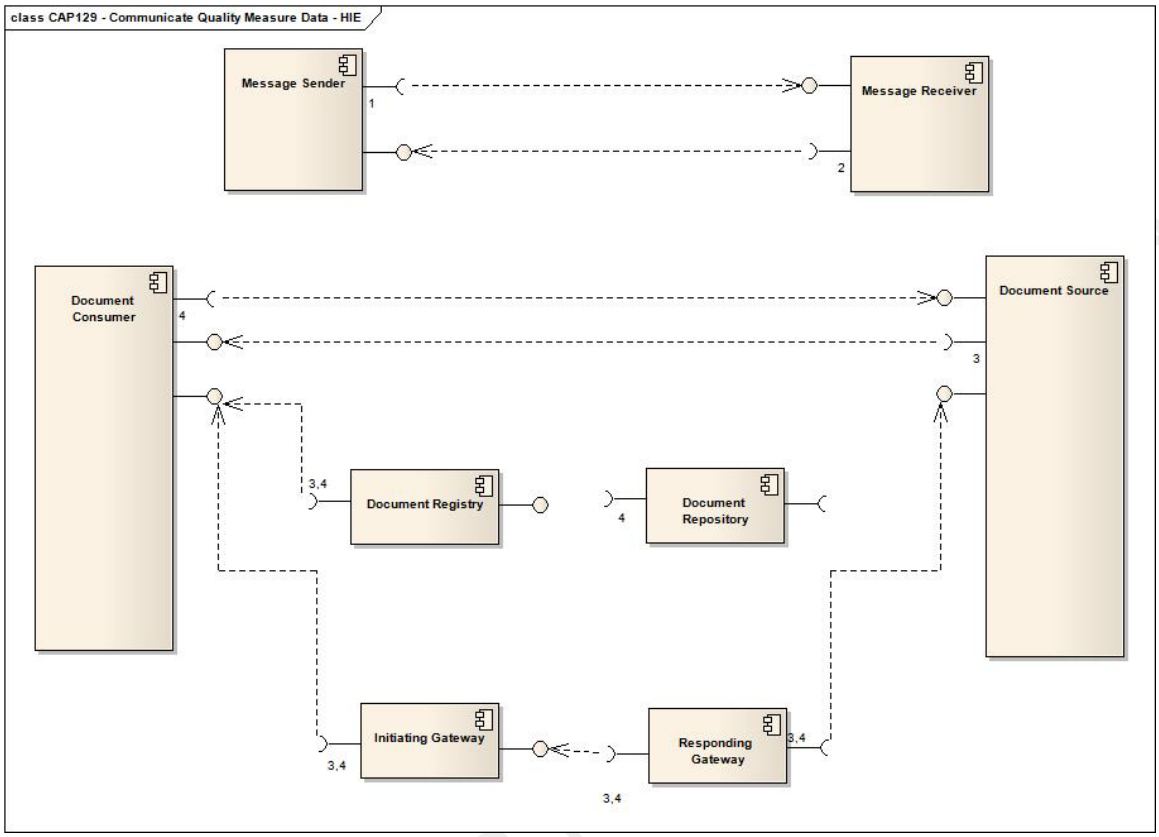


Figure 2-2 Information Exchanges Between System Roles with an HIE



3.0 EXTERNAL CAPABILITY OPTIONS

The following table is provided as an aid to readers to assist them in identifying the parts of this section to focus on. Readers are encouraged to review all sections of this document to further their understanding of HITSP's work.

Table 3-1 Reader's Guide for Section 3.0

Document Section	Section Number	Intended Audience	Information Contained
Section 3.0 External Capability Options	3.1 Security and Privacy	Policy Analysts Architects Business Analysts Developers	Describes the integrated and optional Security and Privacy functions supported by the Capability
	3.2 Information Exchange Options	Architects Business Analysts Developers	Describes the external information exchange options associated with topology and message and document content as applicable

This section is primarily for architects, engineers and analysts. It allows those who consider using this Capability to evaluate and/or constrain the options that are externally made available for the Capability implementers.

Interoperability among system roles defined by this Capability often requires the selection of consistent options.

3.1 SECURITY AND PRIVACY

The application of Security and Privacy is highly influenced by the security and privacy policies. The HITSP Security and Privacy Technical Note (HITSP/TN900) provides a detailed discussion of the security and privacy constructs, including consideration and appropriate context for needed security and privacy related policy decisions. Security and privacy constructs are integrated comprehensively into the Service Collaborations. The actual constructs used and the way in which the constructs are used is dependent on the policies and physical setting. Conformance claims are against the security and privacy constructs that are chosen to enforce the policies.

3.2 INFORMATION EXCHANGE OPTIONS

Three types of information exchange options are externally offered by this Capability:

- Topology Related Options
- Content Import Options
- Document Content Options

The HITSP Exchange Architecture adds topology to the HITSP Harmonization Framework. Topology is the arrangement or mapping of networked Systems, especially the physical (real) and logical (virtual) interconnections between Systems. A Health Information Exchange[1] (HIE) is a special network system that provides intermediary services, such as directories, registries or translations. HITSP supports the following topologies:

- Portable Media (non-connected)

[1] The terms "RHIO" and "Health Information Exchange" or "HIE" are often used interchangeably. An HIE is a more general instance of a RHIO (Regional Health Information Organization). Both are a grouping of organizations with a business stake in improving the quality, safety and efficiency of healthcare delivery. NHIEs are HIEs that support the building blocks of the Nationwide Health Information Network (NHIN) initiative proposed by the Office of the National Coordinator (ONC) for Health Information Technology (HIT). To build a nationwide network of interoperable healthcare records, the effort must first develop at the local and state levels. The concept of NHIN requires extensive collaboration by a diverse set of stake holders. The challenges are many to achieve success for an HIE or a RHIO.

- System to System (point-to-point)
- System to HIE
- HIE to HIE

The following matrix portrays which of the typical network topologies (see HITSP/TN904 for details on topologies) are addressed within the Capability. Within each cell, “Available” indicates that the topology is supported while “Not Available” indicates that the topology is not supported.

Table 3-2 Topology Related Options

Topology	Available or Not Available
Point to Point direct	Available
E-maill	Available
Portable Media	Available
Document Share/Community	Available

In addition to providing topology options, a Capability may provide Information Content Import Options (see Table 3-3 Content Import Options). Note that subsets of the data content can be sent as appropriate for the Capability; but the responding system must be able to address the entire data content corresponding to the Exchange Content supported. Content subsets should be specified in the document that uses this Capability – either an Interoperability Specification or an implementation design document.

Table 3-3 Content Import Options

Document Display	Document Import	Document Discrete Data Import
Integrated	Option	Option

Two content import options are offered:

- **Document Import Option** impacts the import of Documents processed by a Content Consumer interface. It requires the Document Consumer to have the ability to import into the healthcare record one or more of the received documents as a whole and display it as requested
- **Discrete Data Import Option** impacts the import of the HL7 CDA Documents processed by a Content Consumer interface. It requires the Document Consumer to have the ability to import the discrete data from one or more of the data modules in a structured form into the healthcare record. Coded values shall be maintained

This Capability supports the HITSP/C83 Clinical Document Architecture (CDA) Modules document profiles listed in Table 3-4. Any use of this Capability by either an Initiating or a Responding System MUST support at least one of the HITSP CDA documents listed below.

Table 3-4 Document Content Options

Optionality	Supported Document Types
R	Patient Level Quality Document (HITSP/C105)

Optionality Legend: “R” for Required, “O” for Optional, or “C” for Conditional

Please note that at least one of the options shall be supported either by the Initiating System or the Responding System.

4.0 DESIGN SPECIFICATION

The following table is provided as an aid to readers to assist them in identifying the parts of this section to focus on. Readers are encouraged to review all sections of this document to further their understanding of HITSP's work.

Table 4-1 Reader's Guide for Section 4.0

Document Section	Section Number	Intended Audience	Information Contained
Section 4.0 Design Specification	4.1 Requirements Mapped to Constructs	Program Managers Architects Business Analysts Developers	Maps the information exchanges developed in requirements to the actual HITSP construct used by the Capability to support the exchange
	4.2 Constraints and Assumptions	Business Analysts Developers	Lists the context that is necessary to use the Capability, including constraints, assumptions, pre-conditions, post-conditions and triggers
	4.3 Specified Interfaces by System Role	Business Analysts Developers	Identifies the constructs and their interfaces assigned to each system role. It also lists the implementation conditions for use

4.1 REQUIREMENTS MAPPED TO CONSTRUCTS

4.1.1 CONSTRUCTS

Table 4-2 defines the mapping of the Information Exchanges supported by this Capability in terms of the Exchange Action (EA), Exchange Content (EC) and any Constraints applied to the Information Exchange with specific initiating and/or responding system interfaces. This provides the traceability of constructs to the information exchanges identified in Section 2.0 above. Content modules and terminology components are not listed here because they are referenced by other constructs, but do not provide an interface. HITSP/TN903 discusses how content modules and terminology components are referenced by other constructs.

Table 4-2 Information Exchanges Mapped to Constructs

Information Exchange Identifier	Exchange Type	Construct Identifier	Description
A	Action	HITSP/SC115 - HL7 Messaging	The HITSP HL7 Messaging Service Collaboration provides the capability to send and receive HL7 messages. This Service Collaboration applies the necessary Security and Privacy constructs
A	Content	HITSP/C34 - Patient Level Quality Data Message	The HITSP Patient Level Quality Data Message Component supports the process of sending patient data from a Quality Message Sender to a Quality Message Receiver for further analysis and aggregation. Patient data are captured as part of the normal process of care performed by healthcare providers such as hospitals, emergency departments and outpatient clinics
B	Content	HITSP/C105 - Patient Level Quality Document	The HITSP Patient Level Quality Data Document Component supports the communication of patient level quality data for quality measurement in a document sharing environment. Patient encounter data are compiled from both the local systems and from longitudinal data available through a Health Information Exchange (HIE) prior to communicating the retrieved data described in this construct for analysis

Information Exchange Identifier	Exchange Type	Construct Identifier	Description
B, C,	Action	HITSP/SC112 - Healthcare Document Management	The HITSP Healthcare Document Management Service Collaboration provides the ability to share healthcare documents using a set of topologies, such as Media, e-Mail, Point-to-Point, Shared within a Health Information Exchange, and Shared within a larger community (made up of potentially diverse Health Information Exchanges)

4.2 CONSTRAINTS AND ASSUMPTIONS

Table 4-3 specifies the context that must be provided in order to use the Capability, identifying any assumptions, pre-conditions, post-conditions, and triggers relevant for use of the Capability.

Table 4-3 Context

Assumptions, Pre-conditions, Post-conditions, and Triggers	Type of Context
Pre-implementation certification/audit of the process (e.g., integrator/vendor certification)	Pre-condition
This specification will assume clearly defined measures as a pre-condition. (See AQA for Heart Failure set of measures as an example of a clearly defined measure)	Pre-condition
The 'EHR' referenced may include any information system contained in any clinical and/or financial system supporting patient care and may be used for quality analysis; Augmentation is information that does not exist in an electronic form in the described systems	Assumption
Claims data are available to CIS during compilation of historical and supplemental information retrieval	Assumption
Clinical care documentation is available in an electronic format so that measure data can be provided in electronic form	Assumption
There may be a statistician encoding the rules	Assumption
The implementation of the mathematical formula is not specified in the Interoperability Specification and is left to product innovation	Assumption
For each measure, wherever analyzed, the calculation algorithm is the same	Assumption
Changes in measures can be tracked over time (NOTE: a likely solution is versioning)	Assumption
To be able to compare performance or population status over time, comparison needs to address the same version of definition over the same time period. This specification is meant to be generic to any type of measure. There is continued vigilance and attention to versioning.	Assumption
Patient identification with or without pseudonymization is required and is addressed by the specification. When tracking performance over different periods of time, there is no certainty that any individual patient is present in both sets. Using Identification or pseudonymization, such issue can be identified.	Assumption
Agreement of the measurement process between business partners must be in place. For the federal government, minimum dataset requirements for quality measurement are established	Pre-condition
There is policy surrounding sharing of this data, refuting data pre and post publication, and release of risk-adjusted public dissemination. Internal risk management policies surrounding public disclosures will be defined by organizational and public policy	Assumption
Measures are available for quality improvement feedback and for measurement developer	Post-Condition
An audit is performed to ensure the integrity and accuracy of the measurement and reporting program	Post-Condition
The information recipient MAY further translate from the standard format to a local format at the system edge	Post-Condition
Patient level data are ready for submission for measurement calculation	Trigger

4.3 SPECIFIED INTERFACES BY SYSTEM ROLE

This section specifies the HITSP Capability interfaces in terms of the System Roles identified in Table 2-2 Capability's System Roles.

Table 4-4 below specifies interfaces for the first system role as defined in Table 2-2.

Table 4-4 Message Sender System Role Mapped to HITSP Construct Interfaces[2]

Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Request HL7 Message	Initiating	HL7 Messaging (HITSP/SC115)	R
		Patient Level Quality Data Message (HITSP/C34)	C[201]
		Anonymize (HITSP/C25)	C[202]
		Nonrepudiation of Origin (HITSP/C26)	C[205]

Optionality Legend: "R" for Required, "O" for Optional, or "C" for Conditional

Table 4-5 specifies interfaces for responding system roles as defined in Table 2-2.

Table 4-5 Message Sender System Role Mapped to HITSP Construct Interfaces

Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
RespondHL7 Message	Responding	HL7 Messaging (HITSP/SC115)	R
		Patient Level Quality Data Message (HITSP/C34)	C[201]
		Nonrepudiation of Origin (HITSP/C26)	C[205]

Optionality Legend: "R" for Required, "O" for Optional, or "C" for Conditional

Table 4-6 specifies interfaces for initiating gateway system roles as defined in Table 2-2.

Table 4-6 Message Sender System Role Mapped to HITSP Construct Interfaces

Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Send Document	Initiating	Healthcare Document Management (HITSP/SC112)	R
		Patient Level Quality Document (HITSP/C105)	C[201]
		Anonymize (HITSP/C25)	C[202]
		Nonrepudiation of Origin (HITSP/C26)	C[205]

Optionality Legend: "R" for Required, "O" for Optional, or "C" for Conditional

Table 4-7 specifies interfaces for responding system roles as defined in Table 2-2.

Table 4-7 Message Sender System Role Mapped to HITSP Construct Interfaces

Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Receive Document	Responding	Healthcare Document Management (HITSP/SC112)	C[204], [203]
		Patient Level Quality Document (HITSP/C105)	C[201]
		Nonrepudiation of Origin (HITSP/C26)	C[205]

Optionality Legend: "R" for Required, "O" for Optional, or "C" for Conditional

Table 4-8 specifies interfaces for initiating gateway system roles as defined in Table 2-2.

Table 4-8 Message Sender System Role Mapped to HITSP Construct Interfaces

Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Send Document	Initiating	Healthcare Document Management (HITSP/SC112)	C[106]
Receive Document	Responding	Healthcare Document Management (HITSP/SC112)	C[106]

Optionality Legend: "R" for Required, "O" for Optional, or "C" for Conditional

[2] Content Creator is a pseudo interface for the content components.

Table 4-9 specifies interfaces for initiating gateway system roles as defined in Table 2-2.

Table 4-9 Message Sender System Roles Mapped to HITSP Construct Interfaces

Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Send Document	Initiating	Healthcare Document Management (HITSP/SC112)	R
Receive Document	Responding	Healthcare Document Management (HITSP/SC112)	R

Optionality Legend: "R" for Required, "O" for Optional, or "C" for Conditional

Table 4-10 specifies optionality conditions referenced in Table 4-4 through Table 4-9 above.

Table 4-10 Implementation Conditions

Condition ID	Condition Description
C[101]	An implementation shall choose amongst one of the interfaces defined in HITSP/SC112 Healthcare Document Management. This choice is dependent on the topology chosen, the physical limitations, policies and processes of the implementation
C[102]	The EHR System may optionally choose to implement a Document Repository or use an external repository for the Send Documents through Share option of HITSP/SC112 Healthcare Document Management
C[103]	Shall be applied for message-based functional flow
C[104]	System shall support at least one of these interfaces
C[105]	NAV may be required by implementation to support notification of document availability
C[106]	This system role and interface is required if the information exchange topology utilized deploys one or more HIE's which SHALL support the Send/Consume Documents via Share interface described in HITSP/SC112
C[201]	Shall support either HITSP Patient level Quality Message Component or HITSP Patient level Quality Document Component, or both
C[202]	Shall apply HITSP/C25 where anonymization is required by the jurisdiction or information sharing agreements
C[203]	Shall support Multi-Patient Stored Query
C[204]	Shall support Document Metadata Subscription
C[205]	Shall apply HITSP/C26 where nonrepudiation is required by the jurisdiction or information sharing agreements

5.0 STANDARDS

The following table is provided as an aid to readers to assist them in identifying the parts of this section to focus on. Readers are encouraged to review all sections of this document to further their understanding of HITSP's work.

Table 5-1 Reader's Guide for Section 5.0

Document Section	Section Number	Intended Audience	Information Contained
Section 5.0 Standards	5.1 Standards Used	Program Managers Policy Analysts Architects Business Analysts Developers	List regulatory guidance, selected standards and informative references used by the Capability and all its supporting constructs
	5.2 Standards Gaps and Overlaps	Program Managers Policy Analysts Architects Business Analysts Developers	Identifies gaps or overlaps in standards to implement the Capability including a plan to resolve issues

5.1 STANDARDS USED

5.1.1 REGULATORY GUIDANCE

Table 5-2 lists any regulatory guidance that determines or constrains use of standards.

Table 5-2 Regulatory Guidance

Regulation	Description
Health Insurance Portability and Accountability Act (HIPAA) -- Administrative Simplification	A listing of national standards plus rules adopted by federal regulation for electronically communicating specified administrative and financial healthcare transactions, and protecting the security and privacy of healthcare information, as applied to the three types of defined covered entities: health plans, healthcare clearinghouses, and healthcare providers who conduct any of the specified healthcare transactions. For more information see the Code of Federal Regulations, Title 45, Parts 160, et. Seq.
Health Information Technology Expert Panel Report Health IT Enablement of Quality Measurement – the Quality Data Set (QDS) and Dataflow	Data requirements for this document are provided by HITEP II. This reflects the Data Element name/identifier as listed by Health Information Technology Expert Panel of the National Quality Forum (NQF) for the Identification of Core Data Elements. http://www.qualityforum.org/Projects/h/Health_IT_Expert_Panel_I/xHITEP_finaldraft_pdf.aspx

5.1.2 SELECTED STANDARDS

Table 5-3 lists the standards selected as relevant to this Capability.

Table 5-3 Selected Standards

Standard	Description
American Medical Association (AMA) Current Procedural Terminology (CPT®) Fourth Edition (CPT-4); CPT Evaluation and Management Codes	A uniform coding system used primarily to identify medical services and procedures furnished by physicians and other healthcare professionals. For more information visit www.ama-assn.org

Standard	Description
American Society for Testing and Materials (ASTM International) Standard Guide for Electronic Authentication of Health Care Information: # E1762-95(2003)	Defines a document structure for use by electronic signature mechanisms, describes the characteristics of an electronic signature process. Defines minimum requirements for different electronic signature mechanisms. Defines signature attributes for use with electronic signature mechanisms, describes acceptable electronic signature mechanisms and technologies. Defines minimum requirements for user identification, access control, and other security requirements for electronic signatures, and outlines technical details for all electronic signature mechanisms in sufficient detail to allow interoperability between systems supporting the same signature mechanism. For more information visit www.astm.org
Centers for Medicare and Medicaid Services (CMS) National Provider Identifier (NPI)	NPI is a unique 10-digit identification number issued to healthcare providers in the United States by the Centers for Medicare and Medicaid Services (CMS). All individual HIPAA covered healthcare providers (physicians, nurses, dentists, chiropractors, physical therapists, etc.) or organizations (hospitals, home healthcare agencies, nursing homes, residential treatment centers, group practices, laboratories, pharmacies, medical equipment companies, etc.) must obtain an NPI for use in all HIPAA standard transactions, even if a billing agency prepares the transaction. Once assigned, a provider's NPI is permanent and remains with the provider regardless of job or location changes. For more information visit www.cms.gov
Digital Imaging and Communications in Medicine (DICOM) - Part16: Content Mapping Resource	The Digital Imaging and Communications in Medicine (DICOM) standard was created by the National Electrical Manufacturers Association (NEMA) to aid the distribution and viewing of medical images, such as CT scans, MRIs and ultrasound. This Part specifies the DICOM Content Mapping Resource (DCMR) which defined templates, context groups and vocabulary codes used in the DICOM Standard. For more information visit http://medical.nema.org
European Telecommunications Standards Institute (ETSI) Technical Specification TS 101 903: XML Advanced Electronic Signatures (XadES)	Extends the IETF/W3CXML-Signature Syntax and Processing specification [XMLDSIG] into the domain of nonrepudiation by defining XML formats for advanced electronic signatures that remain valid over long periods and are compliant with the European Directive. This includes evidence as to its validity even if the signer or verifying party later attempts to deny (repudiates) the validity of the signature. An advanced electronic signature aligned with this document can, in consequence, be used for arbitration in case of a dispute between the signer and verifier, which may occur at some later time, even years later. For more information, visit www.etsi.org
Federal Information Processing Standards (FIPS) Codes for the Identification of the States, the District of Columbia and the Outlying Areas of the United States, and Associated Areas Publication # 5-2, May, 1987	A set of two-digit numeric codes and a set of two-letter alphabetic codes for representing the 50 states, the District of Columbia and the outlying areas of the United States, and associated areas. The standard covers all land areas under the sovereignty of the United States, the freely associated states of Federated States of Micronesia and Marshall Islands, and the trust territory of Palau. For more information visit www.itl.nist.gov. NOTE: ASC X12 transactions and ASC X12N Implementation Guides do not allow use of this standard; instead they require use of the U.S. Postal Service's National Zip Code and Post Office Directory -- which provides similar alphabetic code values
Federal Medication Terminologies	A set of controlled terminologies and code sets developed and maintained as part of a collaboration between the Food and Drug Administration, National Library of Medicine, Veterans Health Administration, National Cancer Institute and Agency for Healthcare Research and Quality related to medications, including medication proprietary and nonproprietary names, clinical drug code (RxNorm); ingredient names and Unique Ingredient Identifiers (UNII); routes of administration, dosage forms, and units of presentation from the NCI Thesaurus (NCIt); and certain pharmacological drug classes from the National Drug File Reference Terminology (NDF-RT) . The Federal Medication Terminology leverages medication models maintained by the Food and Drug Administration (ex. UNII, NDC Codes), National Library of Medicine (RxNorm), the Veterans Health Administration (NDF-RT), and the National Cancer Institute (NCIt). Information on the Federal Medication Terminologies may be found and downloaded from the NCI Web portal terminology resources page at www.cancer.gov/cancertopics
Health Level Seven (HL7) V3 RBAC, R1-2008, HL7 Version 3 Standard: Role Based Access Control (RBAC) Healthcare Permissions Catalog, Release 1, February 2008	The Healthcare Permission Catalog provides the necessary content for creating interoperable roles facilitating inter-organizational communications and information sharing among healthcare organizations and their business partners. For more information visit www.hl7.org

Standard	Description
Health Level Seven (HL7) Version 2.5[3]	The HL7 Version 2.5 Messaging Standard is an application protocol for electronic data exchange in healthcare. It and prior versions have widespread use in the U.S. and internationally. Both message formats and value sets/code tables (e.g., diagnosis type, gender, patient class, result status, specimen collection method, abnormal flags, observation result status codes interpretation, timestamp format) are contained in the standard. Of particular focus for HITSP Interoperability Specifications are message formats described in Chapters 2, 3, 5, and 7 including patient demographic (ADT) and lab result reporting. These are also used within composite standards from IHE for Patient Identity Cross-Referencing and Feed (PIX), Patient Demographics Query (PDQ), and Acknowledgements. For more information visit www.hl7.org
Health Level Seven (HL7) Version 3.0	The HL7 Version 3.0 Messaging Standard is an application protocol for electronic data exchange in healthcare. Version 3.0 is based on a Reference Information Model (RIM); which is used to instantiate various message formats. Value sets/code tables are contained in the standard. For more information visit www.hl7.org
Health Level Seven (HL7) Version 3.0 Privacy Consent related specifications RCMR_RM010001 - Data Consent	The Data Consent RMIM captures the data and associations needed to (1) record or report a consumer's consent or dissent to authorize the access, collection, use, or disclosure of personally identifiable information; (2) convey a provider's request or intent to override a patient's recorded consent or dissent; (3) convey a type of consent directive associated with a privacy policy; or (4) to record or report a consumer's consent directive, which is to be applied to future access, collection, use or disclosure of personally identifiable information. For more information visit www.hl7.org
Implementation Guide for CDA Release 2 Quality Reporting Document Architecture (QRDA) Based on HL7 CDA Release 2.0 CDAR2_QRDA_R1D1_2009MAR	This Implementation Guide describes constraints on CDA Release 2 Header and Body elements for Quality Reporting Documents. Quality Reporting Document Architecture (QRDA) is a document format that provides a standard structure with which to report quality measure data to organizations that will analyze and interpret the data that is received. The balloted portion of this guide which covers Category 1
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 6.0, Section 10 Cross-Enterprise Document Sharing (XDS.b) Integration Profile	The IHE IT Infrastructure Technical Framework defines specific implementations of established standards to achieve integration goals that promote appropriate sharing of health information to support optimal patient care. Section 10, Cross-Enterprise Document Sharing facilitates the registration, distribution and access across health enterprises of patient electronic health records. IHE Integration Profiles offer a common language that healthcare professionals and vendors may use in communicating requirements for the integration of products. The current version of the ITI-TF, rev. 4.0 for Final Text, specifies the IHE transactions defined and implemented as of August 22, 2007. The latest version of the IHE Technical Framework is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Volume 2 Supplement 2007 – 2008 Cross-Enterprise Document Sharing-B (XDS.b) Integration Profile	The Cross-Enterprise Document Sharing-B Profile (XDS.b) supplement provides a new implementation choice for the Cross-Enterprise Document Sharing (XDS) Integration Profile based on use of the Web Services and ebXML Reg/Rep standards that is consistent with current developments and best practices in the industry. For more information visit www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 4.0 - Registry Stored Query Transaction for XDS Profile Supplement [ITI-18]	The IHE IT Infrastructure Technical Framework defines specific implementations of established standards to achieve integration goals that promote appropriate sharing of health information to support optimal patient care. IHE Integration Profiles offer a common language that healthcare professionals and vendors may use in communicating requirements for the integration of products. The Registry Stored Query Transaction Trial Implementation Supplement specifies an IHE transaction that provides optimization and implementation simplification. This supplement is available at www.ihe.net

[3] HITSP references HL7 V2.5.1 messaging for lab results reporting and HL7 V2.5 for other messages. Future maintenance work will move toward referencing a single HL7 version across HITSP documents.

Standard	Description
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 6.0 XCA Supplement	The IHE IT Infrastructure Technical Framework defines specific implementations of established standards to achieve integration goals that promote appropriate sharing of health information to support optimal patient care. IHE Integration Profiles offer a common language that healthcare professionals and vendors may use in communicating requirements for the integration of products. The trial implementation version of the XCA Supplement to the ITI-TF, rev. 4.0 Final Text, specifies the IHE transactions that support access between communities in a manner compatible with the XDS Integration profile. This supplement is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 6.0, Patient Demographics Query (PDQ) Integration Profile	Provides ways for multiple distributed applications to query a central patient information server for a list of patients, based on user-defined search criteria, and retrieve a patient's demographic (and, optionally, visit or visit-related) information directly into the application. The latest version of the IHE Technical Framework is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Supplement - ITI-25 Notification of Document Availability (NAV) Jun 28, 2005	The capability for automation of critical workflows used in healthcare has been greatly advanced by the introduction of the Cross-Enterprise Document Sharing Integration Profile. However, without point-to-point notification of document availability, these workflows still require manual interactions between parties using document sharing. The Notification of Document Availability Integration Profile (NAV) introduces a mechanism allowing notifications to be sent point-to-point to systems and users within an affinity domain, eliminating the need for manual steps or polling mechanisms. This basic mechanism is only intended to facilitate the common part of a large range of workflows related to notifying a remote party (user or system) that one or more documents have been registered in an XDS Registry and may be retrieved if the notified party wishes. For further information, visit www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) 2006-2007 Trial Implementation Supplement Cross-enterprise Document Reliable Interchange (XDR) Integration Profile	This Supplement to the IHE IT Infrastructure Technical Framework provides a generic, standards based mechanism for conveying a set of medical documents in a point-to-point networked based communication. The current version of the XDR is specified in the XDR Trial Implementation Supplement to the ITI-TF, rev. 4.0, which is consistent with IHE XDS.b Supplement in term of document entry metadata. For more information visit www.ihe.net/technical_framework. NOTE: off-line mode transaction expected to be updated once standards are available for Web Services Off-line
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 6.0 or later, Patient Identifier Cross-Referencing (PIX) Integration Profile	The Patient Identifier Cross-referencing Integration Profile (PIX) is targeted at healthcare enterprises of a broad range of sizes (hospital, a clinic, a physician office, etc.). It supports the cross-referencing of patient identifiers from multiple Patient Identifier Domains via the following interactions: 1)The transmission of patient identity information from an identity source to the Patient Identifier Cross-reference Manager. 2) The ability to access the list(s) of cross-referenced patient identifiers either via a query/ response or via update notification. By specifying the above transactions among specific interfaces, this integration profile does not define any specific enterprise policies or cross-referencing algorithms. By encapsulating these behaviors in a single interface, this integration profile provides the necessary interoperability while maintaining the flexibility to be used with any cross-referencing policy and algorithm as deemed adequate by the enterprise. The latest version of the IHE Technical Framework is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 6.0 or later, Audit Trail and Node Authentication (ATNA) Integration Profile	Audit Trail and Node Authentication (ATNA) establishes the characteristics of a Basic Secure Node. It describes the security environment (user identification, authentication, authorization, access control, etc.) assumed for the node so that security reviewers may decide whether this matches their environments. It defines basic auditing requirements for the node. It defines basic security requirements for the communications of the node using TLS or equivalent functionality. It establishes the characteristics of the communication of audit messages between the Basic Secure Nodes and Audit Repository nodes that collect audit information. This integration profile has been designed so that specific domain frameworks may extend it through an option defined in the domain specific technical framework. Extensions are used to define additional audit event reporting requirements, especially interface specific requirements. The latest version of the IHE Technical Framework is available at www.ihe.net

Standard	Description
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 6.0 or later, Consistent Time (CT) Integration Profile	The Consistent Time Integration Profile (CT) provides a means to ensure that the system clocks and time stamps of the many computers in a network are well synchronized. This profile specifies synchronization with a median error less than 1 second. This is sufficient for most purposes. The current version of the ITI-TF, rev. 4.0 for Final Text, specifies the IHE CT Integration Profile, and other transactions defined and implemented as of August 22, 2007. The latest version of the IHE Technical Framework is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Volume 2 Supplement 2007 – 2008 Cross-Enterprise User Assertion (XUA) Integration Profile	The Cross-Enterprise User Assertion Profile (XUA) provides a means to communicate claims about the user identity of an authenticated principal (user, application, system...) in transactions that cross enterprise boundaries. To provide accountability in these cross enterprise transactions there is a need to identify the requesting user in a way that the receiver can make access decisions and proper audit entries. The XUA Profile supports enterprises that have chosen to have their own user directory with their own unique method of authenticating the entities, and others that may have chosen to use a third party to perform the authentication. The latest version of the IHE framework is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Supplement Volume 3 – Document Digital Signature (DSG) Content Profile	Specifies the use of digital signatures for documents that are shared between organizations. The latest version of the IHE Technical Framework is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) 2007 – 2008 Supplement, Retrieve Form for Data Capture (RFD) Integration Profile	The Retrieve Form for Data Capture Profile (RFD) provides a method for gathering data within a user's current application to meet the requirements of an external system. RFD supports the retrieval of forms from a form source, display and completion of a form, and return of instance data from the display application to the source application. The profile relies upon XForms technology to support negotiation between the form display and form provider systems, so that iterative exchanges can deal with issues like form selection, completion of a series of forms, partial completion of forms, returning to forms partially filled out in earlier sessions. RFD also supports archiving a copy of the completed form
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 6.0	The IHE IT Infrastructure Technical Framework defines specific implementations of established standards to achieve integration goals that promote appropriate sharing of health information to support optimal patient care. IHE Integration Profiles, offer a common language that healthcare professionals and vendors may use in communicating requirements for the integration of products. The current version of the ITI-TF, rev. 4.0 for Final Text, specifies the IHE transactions defined and implemented as of August 22, 2007. The latest version of the IHE Technical Framework is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Supplement 2007 - 2008 Basic Patient Privacy Consents (BPPC) – Trial Implementation	The Basic Patient Privacy Consents (BPPC) profile provides a mechanism to record the patient privacy consent(s), a method to mark documents published to XDS with the patient privacy consent that was used to authorize the publication, and a method for XDS Consumers to use to enforce the privacy consent appropriate to the use. This profile complements XDS by describing a mechanism whereby an XDS Affinity Domain can develop and implement multiple privacy policies, and describes how that mechanism can be integrated with the access control mechanisms supported by the XDS Interfaces (e.g. systems). There are two key parts of the profile: 1) It provides a document content specification for capturing a patient acknowledgement of a privacy consent policy or policies. 2) It describes the method by which XD* Interfaces can enforce the privacy policies determined by the document confidentiality Code related to the patient privacy consents. The latest version of specification is available at www.ihe.net
Integrating the Healthcare Enterprise (IHE) Patient Care Coordination (PCC) Technical Framework Volume 1, Revision 3.0 2007 – 2008	The IHE Patient Care Coordination Technical Framework (PCC TF) defines specific implementations (called Integration Profiles) of established standards to deal with integration issues that cross providers, patient problems or time. The Cross Enterprise Document Sharing of Medical Summaries (XDS-MS) Integration Profile enables sharing of health information between enterprises of a regional health network, and further describes how to map content in a CDA medical document into registry metadata. In the registry, healthcare providers publish pointers to documents stored in distributed repositories. Other healthcare providers may search and retrieve these and other documents. For more information visit www.ihe.net

Standard	Description
Integrating the Healthcare Enterprise (IHE) Patient Care Coordination (PCC), Revision 3.0, 2007 - 2008, Cross-Enterprise Sharing of Medical Summaries (XDS-MS) Integration Profile	The IHE Patient Care Coordination Technical Framework (PCC TF) defines specific implementations (called Integration Profiles) of established standards to deal with integration issues that cross providers, patient problems or time. The Cross Enterprise Document Sharing of Medical Summaries (XDS-MS) Integration Profile enables sharing of health information between enterprises of a regional health network, and further describes how to map content in a CDA medical document into registry metadata. In the registry, healthcare providers publish pointers to documents stored in distributed repositories. Other healthcare providers may search and retrieve these and other documents. For more information visit www.ihe.net
International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS)	The International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS), describes the classification of inpatient procedures for statistical purposes and for the indexing of healthcare records by procedures. ICD-10-PCS is a procedural coding system managed by the Centers for Medicare and Medicaid Services (CMS). For more information visit www.cms.hhs.gov. Note: While ICD-10 is not deployed in US installations, we recognize the need to move toward new releases of coded values
International Classification of Diseases, 9th Revision, Clinical Modifications (ICD-9-CM)	The International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), Volumes I, II (diagnoses) and III (procedures) describes the classification of morbidity information for statistical purposes and for the indexing of healthcare records by diseases and procedures. For more information visit www.cdc.gov/nchs
International Health Terminology Standards Development Organisation (IHTSDO) Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®)	SNOMED CT consists of a technical design, core content architecture, and Core content. SNOMED CT Core content includes the technical specification of SNOMED CT and fully integrated multi-specialty clinical content. The Core content also includes a concepts table, description table, relationships table, history table, ICD-9-CM mapping, and Technical Reference Guide. Additionally, SNOMED CT provides a framework to manage language dialects, clinically relevant subsets, qualifiers and extensions, as well as concepts and terms unique to particular organizations or localities. For more information visit www.ihtsdo.com
International Organization for Standardization (ISO) Health informatics -- Pseudonymisation, Technical Specification # 25237 (ISO TS25237)	Health Informatics – Pseudonymisation. Approved as a Technical Specification March, 2007. For more information visit www.iso.org
Internet Engineering Task Force (IETF) Network Time Protocol (Version 3) Specification, Implementation and Analysis, "Request for Comment" (RFC) #1305, March, 1992	Describes the Network Time Protocol (NTP): the mechanisms to synchronize time and coordinate time distribution in a large, diverse internet operating at rates from mundane to lightwave. For more information visit www.ietf.org
Internet Engineering Task Force (IETF) Simple Network Time Protocol (SNTP) Version 4, "Request for Comment" (RFC) #2030, October, 1996	Describes the Simple Network Time Protocol (SNTP) Version 4, which is an adaptation of the Network Time Protocol (NTP). SNTP can be used when the ultimate performance of the full NTP implementation is not needed or justified. When operating with current and previous NTP and SNTP versions, SNTP Version 4 involves no changes to the NTP specification or known implementations, but is rather a clarification of certain design features of NTP. For more information visit www.ietf.org
Logical Observation Identifiers Names and Codes (LOINC®)	A database of universal identifiers for laboratory and other clinical observations. The laboratory portion of the LOINC database contains the usual categories of chemistry, hematology, serology, microbiology (including parasitology and virology), and toxicology; as well as categories for drugs and the cell counts typically reported on a complete blood count or a cerebrospinal fluid cell count. Antibiotic susceptibilities are a separate category. The clinical portion of the LOINC database includes entries for vital signs, hemodynamics, intake/output, EKG, obstetric ultrasound, cardiac echo, urologic imaging, gastroendoscopic procedures, pulmonary ventilator management, selected survey instruments, and other clinical observations. For more information visit www.loinc.org

Standard	Description
National Library of Medicine (NLM) Unified Medical Language System (UMLS) RxNorm	Provides standard names for (1) clinical drugs and (2) drug dose forms as administered to a patient. Also provides links from clinical drugs, both branded and generic, to their active ingredients, drug components (active ingredient + strength), and related brand names. Food and Drug Administration (FDA) National Drug Codes (NDCs) for specific drug products and many of the drug vocabularies commonly used in pharmacy management and drug interaction software are additionally linked to RxNorm. RxNorm is a part of the Federal Medication Terminologies. For more information visit www.nlm.nih.gov
National Uniform Billing Committee (NUBC) Uniform Bill Version 2007 (UB-04) Current UB Data Specification Manual Field 22, Patient Discharge Status, Codes	A code set identifying status of patient discharge on an institutional claim (e.g., inpatient, outpatient, hospice, home care). For more information visit www.nubc.org
Organization for the Advancement of Structured Information Standards (OASIS) Simple Object Access Protocol (SOAP) Version 1.1, 1.2	SOAP is a protocol specification for invoking methods on servers, services, components and objects. SOAP codifies the existing practice of using XML and HTTP as a method invocation mechanism. The SOAP specification mandates a small number of HTTP headers that facilitate firewall/proxy filtering plus an XML vocabulary that is used for representing method parameters, return values, and exceptions." {DevelopMentor} SOAP consists of three parts: an envelope that defines a framework for describing what is in a message and how to process it, a set of encoding rules for expressing instances of application-defined data types, and a convention for representing remote procedure calls and responses. For more information visit www.oasis-open.org
Organization for the Advancement of Structured Information Standards (OASIS) Security Assertion Markup Language (SAML) Core V2.0 OASIS Standard; ITU-T X.1141	SA SAML, developed by the Security Services Technical Committee of OASIS, is an XML-based framework for communicating user authentication, entitlement, and attribute information. As its name suggests, SAML allows business entities to make assertions regarding the identity, attributes, and entitlements of a subject (an entity that is often a human user) to other entities, such as a partner company or another enterprise application. For more information visit www.oasis-open.org
Organization for the Advancement of Structured Information Standards (OASIS) WS-Federation Web Services Federation Language (WS- Federation), Version 1.1, December 2006	Defines mechanisms to allow different security realms to federate, such that authorized access to resources managed in one realm can be provided to security principals whose identities and attributes are managed in other realms. This includes mechanisms for brokering of identity, attribute, authentication and authorization assertions between realms, and privacy of federated claims. For more information visit www.oasis-open.org
Organization for the Advancement of Structured Information Standards (OASIS) WS-Trust Version 1.3, March 2007	Defines extensions that build on [WS-Security] to provide a framework for requesting and issuing security tokens, and to broker trust relationships. Defines Security Toke Service (STS) model for security tokens including requesting, issuing, renewing, canceling and validating. For more information visit www.oasis-open.org
Organization for the Advancement of Structured Information Standards (OASIS) eXtensible Access Control Markup Language (XACML), ITU-T Recommendation X.1142, February 2005	The Organization for the Advancement of Structured Information Standards (OASIS) standards group developed the eXtensible Access Control Markup Language (XACML) as a language to express and evaluate access decisions. The XCML technical specification includes a profile for RBAC using XACML that complies with the ANSI RBAC standard. The HL7 RBAC Permission Catalog provides a standard vocabulary that can be used for cross-enterprise access control. For more information visit www.oasis-open.org
Unified Code for Units of Measure (UCUM)	A code system intended to include all units of measures being contemporarily used in international science, engineering, and business. The purpose is to facilitate unambiguous electronic communication of quantities together with their units. The focus is on electronic communication, as opposed to communication between humans. For more information visit aurora.regenstrief.org

5.1.3 INFORMATIVE REFERENCE STANDARDS

Table 5-4 includes reference standards that inform the overall semantic interoperability.

Table 5-4 Informative Reference Standards

Standard	Description
Department of Veterans Affairs (VA) National Drug File Reference Terminology (NDF-RT)	It is a description logic-based resource created to support clinical operations at one of the largest healthcare providers in the US, and is part of the Federal Medication Terminologies. The NDF-RT codes can be found on the NCI Web Site at: www.cancer.gov

Standard	Description
Digital Imaging and Communications in Medicine (DICOM) Attribute Level Confidentiality Supplement: #55	Adds a mechanism for selective protection of individual attributes within arbitrary DICOM service-object pair (SOP) instances. It may be used to achieve protection of identifying information, e.g. a reversible anonymization or pseudonymization of DICOM SOP instances while continuing to use unmodified lower level message and protocol services for network transfer, storage, and media exchange of composite image information objects. For more information visit medical.nema.org

5.2 STANDARDS GAPS AND OVERLAPS

Table 5-5 identifies the information exchange requirements and known standards gaps, along with the recommended resolutions to the gaps.

Table 5-5 Information Exchange Requirements (IER) and Associated Standards Gaps

IER Gap Description	Responsible HITSP TC	Design Approach	Required Standards Now Unavailable for Constructs	SDO Working on Unavailable Standards	Expected Availability
None					

Table 5-6 lists any standards overlaps and describes plans to resolve each of the overlaps.

Table 5-6 Information Exchange Requirements (IER) and Associated Standards Overlaps

IER Number	Summary Description	Standard Overlap	Recommended Resolution
6.1.8, 7.1.8	Transmit patient level quality information	Discipline-recognized point-of-care user interface terminologies	Discipline-recognized point-of-care user interface terminologies may be used for end systems. Harmonization of these terminologies is needed and should be accelerated SNOMED CT to be used for interoperability transactions
6.1.8, 7.1.8	Transmit patient level quality information	Role term is used in various standards differently.	Refer to SDOs for harmonization
6.1.1, 7.1.1	Receive listing of defined measures & abstraction guidelines	Arden Syntax, GLIF, GELLO, OWL, ISO Common Logic	Refer for evaluation and harmonization
6.1.5, 7.1.5	6.1.5 Augment EHR data with manual extraction of patient data (may also occur prior to discharge) 7.1.5 Merge administrative data with EHR data and manual extraction of patient data	UN Standard product and services code – Coalition for healthcare e-standards; overlaps with LOINC possible	Pending further review

6.0 APPENDIX

This section may include additional materials referenced throughout this document, such as requirements analysis tables and figures. If the Capability is yet to be implemented, it may contain the candidate standards for Tier 2 evaluations.

Legacy Interoperability Specifications were used to derive this Capability.

- HITSP/IS06 Quality

7.0 DOCUMENT UPDATES

The following sections provide the details of updates made to this document.

7.1 NOVEMBER 9, 2009

This is the first published version of the document

7.2 JANUARY 18, 2010

Updated to reflect the new Capabilities Template Version 2.3 and the disposition of Public Comments decisions by the Population Perspective Technical Committee. The full text of the comments along with the Technical Committee's disposition can be reviewed on the HITSP Public Web Site.

7.3 JANUARY 25, 2010

Upon approval by the HITSP Panel on January 25, 2010, this document is now Released for Implementation.