

# HITSP Communicate Hospital Prescription Capability

---

HITSP/CAP118



Healthcare Information Technology Standards Panel

*Submitted to:*

**Healthcare Information Technology Standards Panel**

*Submitted by:*

**Capabilities Team**



## DOCUMENT CHANGE HISTORY

Version Number	Description of Change	Name of Author	Date Published
0.0.1	Populate template	Capabilities Team	September 30, 2009
0.0.2	Review Copy	Selected Perspective, Domain and/or Tiger Team reviewers	November 9, 2009
0.0.3	Review Copy	Selected Perspective, Domain and/or Tiger Team reviewers	January 18, 2010
1.0	Released for Implementation	Selected Perspective, Domain and/or Tiger Team reviewers	January 25, 2010



# TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>5</b>
1.1	Capability Overview .....	5
1.2	Scope.....	6
1.3	Copyright Permissions.....	6
1.4	Reference Documents.....	6
1.5	Guidance For Use of a Capability.....	6
<b>2.0</b>	<b>REQUIREMENTS ANALYSIS .....</b>	<b>8</b>
2.1	Introduction .....	8
2.2	Requirements .....	8
2.2.1	Information Exchanges .....	8
<b>3.0</b>	<b>EXTERNAL CAPABILITY OPTIONS .....</b>	<b>10</b>
3.1	Security and Privacy .....	10
<b>4.0</b>	<b>DESIGN SPECIFICATION .....</b>	<b>11</b>
4.1	Requirements Mapped to Constructs .....	11
4.1.1	Constructs.....	11
4.2	Constraints and Assumptions.....	12
4.3	Specified Interfaces by System Role.....	12
<b>5.0</b>	<b>STANDARDS .....</b>	<b>15</b>
5.1	Standards Used.....	15
5.1.1	Regulatory Guidance.....	15
5.1.2	Selected Standards .....	15
5.1.3	Informative Reference Standards.....	17
5.2	Standards Gaps and Overlaps .....	18
<b>6.0</b>	<b>APPENDIX .....</b>	<b>19</b>
<b>7.0</b>	<b>DOCUMENT UPDATES .....</b>	<b>21</b>
7.1	September 30, 2009 .....	21
7.2	November 9, 2009 .....	21
7.3	January 18, 2010.....	21
7.4	January 25, 2010.....	21



## FIGURES AND TABLES

Figure 2-1 Information Exchanges Between System Roles .....	9
Table 1-1 Reader's Guide for Capability .....	5
Table 1-2 Reference Documents .....	6
Table 2-1 Reader's Guide for Section 2.0 .....	8
Table 2-2 Capability System Roles .....	8
Table 2-3 Supported Information Exchanges .....	8
Table 3-1 Reader's Guide for Section 3.0 .....	10
Table 4-1 Reader's Guide for Section 4.0 .....	11
Table 4-2 Information Exchanges Mapped to Constructs .....	11
Table 4-3 Context .....	12
Table 4-4 Medication Order Prescriber System Role Mapped to HITSP Construct Interfaces .....	13
Table 4-5 Medication Order Filler System Role Mapped to HITSP Construct Interfaces .....	13
Table 4-6 Health Plan System Role Mapped to HITSP Construct Interfaces .....	13
Table 4-7 Implementation Conditions .....	14
Table 5-1 Reader's Guide for Section 5.0 .....	15
Table 5-2 Regulatory Guidance .....	15
Table 5-3 Selected Standards .....	15
Table 5-4 Informative Reference Standards .....	17
Table 5-5 Information Exchange Requirements (IER) and Associated Standards Gaps .....	18
Table 5-6 Information Exchange Requirements (IER) and Associated Standards Overlaps .....	18
Table 6-1 Functional Requirements .....	19
Table 6-2 New Exchange Contents Needed .....	20
Table 6-3 New Data Requirements Needed .....	20



## 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
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 requirements that support electronic prescribing for inpatient orders that can occur within an organization or between organizations. The Capability supports the



transmittal of a new or modified prescription from a Hospital to an internal or external pharmacy. It also includes the option to access formulary and benefit information.

Note that support for the formal process of medication reconciliation can be addressed when this Capability is associated with HITSP/CAP119 Communicate Structured Document (medications and allergies)

## 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

### COPYRIGHT NOTICE

© 2010 ANSI. This material may be copied without permission from ANSI only if and to the extent that the text is not altered in any fashion and ANSI's copyright is clearly noted.

## 1.4 REFERENCE DOCUMENTS

A list of key reference documents and background material is provided in the table below. HITSP-maintained reference documents can be retrieved from the [HITSP Web Site](#).

**Table 1-2 Reference Documents**

Reference Documents	Document Description
<a href="#">HITSP Acronyms List</a>	Lists and defines the acronyms used in this document
<a href="#">HITSP Glossary</a>	Provides definitions for relevant terms used by HITSP documents
<a href="#">TN900 – Security and Privacy</a>	TN900 is a reference document that provides the overall context for use of the HITSP Security and Privacy constructs
<a href="#">TN901 - Clinical Documents</a>	TN901 is a reference document that provides the overall context for use of the HITSP Care Management and Health Records constructs
<a href="#">TN903 – Data Architecture</a>	TN903 is a reference document that provides the overall context for use of the HITSP Data Architecture constructs
<a href="#">TN904 – Harmonization Framework and Exchange Architecture</a>	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 4-7 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



## 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
Medication Order Prescriber	The source that creates and manages a medication order. (e.g., EHR System, stand-alone electronic prescribing applications or systems)
Medication Order Filler	The recipient of a medication order where the intent is to process and fill (dispense) the medication order (e.g., pharmacy)
Health Plan	The source of information on formulary, benefits and eligibility for a consumer. A source of information for medication history. The term includes payers, processors, pharmacy benefit managers (PBMs)

### 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
1	Responding	Health Plan Response
2	Initiating	Health Plan Request
3	Responding	Patient Eligibility Result
4	Initiating	Patient Eligibility Request
5	Initiating	Medication Dispensing Status
6	Responding	Medication Dispensing Status Receiver
7	Initiating	Medication Orders

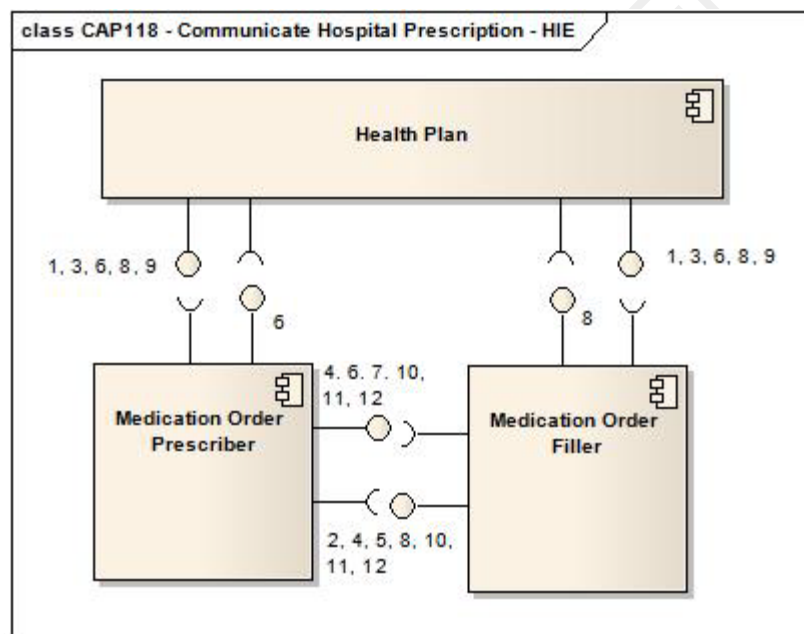




Information Exchange Identifier	Exchange Action	Exchange Content
8	Responding	Medication Order Filler
9	Responding	Medication Formulary and Benefits Source
10	Initiating	Medication Benefits and Formulary
11	Initiating	HL7 Message
12	Responding	HL7 Message Response

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**



## 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

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.



## 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
4, 3 – Request and Response Patient Health Plan Eligibility Verification  9, 10 – Request and Response Medication Formulary and Benefits Information 5, 6 – Request and Response Medication Dispensing Status	Action	HITSP/SC114 - Administrative Transport to Health Plan	The HITSP Administrative Transport to Health Plan Service Collaboration provides the electronic communication (transport mechanism) for conducting administrative transactions with health plans
4, 3 – Request and Response Patient Health Plan Eligibility Verification	Content	HITSP/T40 - Patient Health Plan Eligibility Verification	The HITSP Patient Health Plan Eligibility Verification Transaction provides an individual's coverage status from a health plan, along with details regarding patient liability for deductible, co-pay and co-insurance amounts. It can be used for a defined base set of general benefits or services or for specific services based on service types, procedure codes, or diagnoses



Information Exchange Identifier	Exchange Type	Construct Identifier	Description
7, 8 – Request and Response Medication Orders	Action	HITSP/SC115 – HL7 Messaging	The HITSP HL7 Messaging Service Collaboration provides the capability to send and receive HL7 messages. The Service Collaboration applies the necessary Security and Privacy constructs, and supports HITSP/TP43 Medication Orders
7, 8 – Request and Response Medication Orders	Content	HITSP/TP43 - Medication Orders	The HITSP Medication Orders Transaction Package is used to define transactions between prescribers (who write prescriptions) and dispensers (who fill prescriptions). It is used for new prescriptions, refill requests, prescription change requests and prescription cancellations. Orders/prescriptions may occur in many different real world settings, such as inpatient, long term care and ambulatory settings
9, 10 – Request and Response Medication Formulary and Benefits Information	Content	HITSP/TP46 - Medication Formulary and Benefits Information	HITSP Medication Formulary and Benefits Information Transaction Package addresses two tasks. The first task is to perform an eligibility check for a specific patient's pharmacy benefits. The eligibility check can be performed by a prescriber using ASC X12 270/271 transaction standards together with the X12 Insurance Subcommittee (X12N) Implementation Guides reference numbers 004010X92 and its addenda 004010X92A1. The eligibility response will tell the prescriber if the patient is eligible for retail and mail order pharmacy benefit. The eligibility response will also contain a set of IDs which link a given benefit to the associated formulary and benefits information. An eligibility check can also be performed by a pharmacy using NCPDP Telecommunication Standard transactions. Both of these methods of verification are done in real time. The second task of the HITSP Medication Formulary and Benefits Information Transaction Package is to obtain the medication formulary and benefit information
5, 6 – Request and Response Medication Dispensing Status	Content	HITSP/T42 - Medication Dispensing Status	The HITSP Medication Dispensing Status Transaction provides a medication prescriber the dispensing status of an ordered prescription (dispensed, partially dispensed, not dispensed). This Transaction is used for original prescriptions, refills and renewals

## 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
Ability to identify and request corrections to errors is available	Pre-condition

## 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 Medication Order Prescriber system role as defined in Table 2-2.

**Table 4-4 Medication Order Prescriber System Role Mapped to HITSP Construct Interfaces**

Construct Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Eligibility Information Receiver	Initiating	Administrative Transport to Health Plan (HITSP/SC114) + Patient Health Plan Eligibility Verification (HITSP/T40)	R
Medication Dispensing Status Receiver	Responding	Administrative Transport to Health Plan (HITSP/SC114) + Medication Dispensing Status (HITSP/T42)	R
Medication Order Prescriber	Initiating	HL7 Messaging (HITSP/SC115) + Medication Orders (HITSP/TP43)	C[101]
Medication Formulary and Benefits Retriever	Initiating	Medication Formulary and Benefit Information (HITSP/TP46)	R

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

Table 4-5 below specifies interfaces for the Medication Order Filler system role as defined in Table 2-2.

**Table 4-5 Medication Order Filler System Role Mapped to HITSP Construct Interfaces**

Construct Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Eligibility Information Receiver	Initiating	Administrative Transport to Health Plan (HITSP/SC114) + Patient Health Plan Eligibility Verification (HITSP/T40)	R
Medication Dispensing Status Dispenser	Initiating	Administrative Transport to Health Plan (HITSP/SC114) + Medication Dispensing Status (HITSP/T42)	R
Medication Order Filler	Responding	HL7 Messaging (HITSP/SC115)+ Medication Orders (HITSP/TP43)	R
Medication Formulary and Benefits Retriever	Initiating	Medication Formulary and Benefit Information (HITSP/TP46)	R

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

Table 4-6 below specifies interfaces for the Health Plan system role as defined in Table 2-2.

**Table 4-6 Health Plan System Role Mapped to HITSP Construct Interfaces**

Construct Interface	Interface Type	T/TP/SC or Content	T/SC/Content Optionality
Medication Formulary and Benefits Source	Responding	Medication Formulary and Benefit Information (HITSP/TP46)	R
Eligibility Information Source	Responding	Administrative Transport to Health Plan (HITSP/SC114) + Patient Health Plan Eligibility Verification (HITSP/T40)	R

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

Table 4-7 specifies optionality conditions referenced in Table 4-4 through Table 4-6 above.



**Table 4-7 Implementation Conditions**

Condition ID	Condition Description
C[101]	The HL7 transaction method shall be used within the hospital, and the NCPDP transaction method shall be used when communicating with external systems



## 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
Medicare Prescription Drug Improvement and Modernization Act of 2003 (Pub.L. 108-173, 117 Stat. 2066, also called Medicare Modernization Act or MMA)	The Medicare Prescription Drug Improvement and Modernization Act of 2003 (MMA) initiated improvements in the Medicare system. The legislation provided a voluntary program for prescription drug coverage under Medicare. Additionally, the MMA allows a tax deduction to individuals for amounts contributed to health savings security accounts, provides the disposition of unused health benefits in cafeteria plans and flexible spending arrangements. For more information visit <a href="http://www.cms.hhs.gov">www.cms.hhs.gov</a>

#### 5.1.2 SELECTED STANDARDS

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

**Table 5-3 Selected Standards**

Standard	Description
Accredited Standards Committee (ASC) X12 270 and 271 Transaction Standards Version 4010, using the Insurance Subcommittee (X12N) Addenda 004010X92A1	Many of the Version X12N 004010 Implementation Guides, including all of those adopted under HIPAA, have Addenda that contain updates -- only -- to the original Implementation Guides. These Addenda are identified as Version 004010A1. Implementation Guide 004010X092A1 describes transactions for Health Care Eligibility Benefit Inquiry and Response. Implementation Guides are published by Washington Publishing Company. For more information visit <a href="http://www.wpc-edi.com">www.wpc-edi.com</a>



Standard	Description
Accredited Standards Committee (ASC) X12 270 and 271 Transaction Standards Version 4010, using the Insurance Subcommittee (X12N) Implementation Guides Version Reference Numbers 004010X92	Detailed Implementation Guides based on release 004010 of the X12 standards. These Implementation Guides provide details on the use of X12 standards to accomplish specific transaction functions. Some of the Version 004010 Implementation Guides, but not all, have been adopted as Implementation Specifications under HIPAA. Implementation Guides are published by Washington Publishing Company. For more information visit <a href="http://www.wpc-edi.com">www.wpc-edi.com</a>
Accredited Standards Committee (ASC) X12 270 Transaction Version Standards Release 004010	The objective of the Health Care Eligibility/Benefit Inquiry (270) is to provide for the exchange of eligibility inquiry to individuals within a health plan. This transaction can be used by healthcare providers to request coverage and payment information on the member/insured in a batch environment where real time processing is not required. This transaction is also used to provide additional patient eligibility information to support administrative reimbursement for healthcare products and services. This standard is required by HIPAA
Accredited Standards Committee (ASC) X12 271 Transaction Version Standards Release 004010	The objective of the Health Care Eligibility, Coverage, or Benefit Information (271) is to provide for the response to eligibility inquiries about individuals within a health plan. This transaction can be used to receive coverage and payment information on a member/insured in a batch environment where real time processing is not required. This transaction is also used to provide additional patient eligibility information to support administrative reimbursement for healthcare products and services. This standard is required by HIPAA
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 <a href="http://www.cms.gov">www.cms.gov</a>
Drug Enforcement Administration (DEA) Prescriber Number	The Drug Enforcement Administration (DEA) is a United States Department of Justice law enforcement agency tasked with enforcing the Controlled Substances Act of 1970. It shares concurrent jurisdiction with the Federal Bureau of Investigation in narcotics enforcement matters. A DEA number is a series of numbers assigned to a healthcare provider (such as a dentist, physician, nurse practitioner, or physician assistant) allowing them to write prescriptions for controlled substances. Legally the DEA number is solely to be used for tracking controlled substances. The DEA number, however, is often used by the industry as a general "prescriber" number that is a unique identifier for anyone who can prescribe medication
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 <a href="http://www.itl.nist.gov">www.itl.nist.gov</a> 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 <a href="http://www.cancer.gov/cancertopics/terminologyresources/FMT">www.cancer.gov/cancertopics/terminologyresources/FMT</a>





Standard	Description
Health Care Provider Taxonomy	The Health Care Provider Taxonomy code set is a collection of unique alphanumeric codes, ten characters in length. The Health Care Provider Taxonomy code set includes specialty categories for individuals, groups of individuals, and non-individuals. The National Uniform Claims Committee maintains this code set. The complete code set is available from the Washington Publishing Company at <a href="http://www.wpc-edi.com">www.wpc-edi.com</a>
Health Level Seven (HL7) Version 2.5.1 – Pharmacy/Treatment Orders (OMP)	The HL7 Version 2.5.1 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, 4, 5, and 7 including patient demographic (ADT), Pharmacy/Treatment Orders 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. They are also used in HL7 order messages. For more information visit <a href="http://www.hl7.org">www.hl7.org</a>
National Council for Prescription Drug Programs (NCPDP) SCRIPT Standard Implementation Guide Version 8.1 or 10.1	Provides for the real time electronic transfer of prescription data between pharmacies and providers. Functions supported include communication of new prescriptions, prescription changes, refill requests, prescription fill status notifications, and prescription cancellations. For more information visit <a href="http://www.ncdp.org">www.ncdp.org</a>
National Council for Prescription Drug Programs (NCPDP) Formulary and Benefit Standard Implementation Guide Version 1.0	Provides a standard means for pharmacy benefit payers (including health plans and Pharmacy Benefit Managers) to communicate formulary and benefit information to prescribers via technology vendor systems. The service enables technology vendors to receive a range of formulary and benefit information through the service: formulary status, preferred alternatives, benefit coverage and copay information. For more information visit <a href="http://www.ncdp.org">www.ncdp.org</a>
National Council for Prescription Drug Programs (NCPDP) Telecommunication Standard Implementation Guide Version D.0	Provides prescription claim transactions between Providers and Adjudicators, and between Adjudicators (aka Payer-to-Payer). The Telecommunication Standard Implementation Guide supports the following processes: <ul style="list-style-type: none"> <li>• Eligibility Verification</li> <li>• Claim</li> <li>• Service</li> <li>• Information Reporting</li> <li>• Prior Authorization</li> <li>• Predetermination of Benefits</li> </ul> For more information visit <a href="http://www.ncdp.org">www.ncdp.org</a> Version D.0 of this document was named in Modifications to the Health Insurance Portability and Accountability Act (HIPAA-2) of 2009
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. For more information visit <a href="http://www.nlm.nih.gov">www.nlm.nih.gov</a>

### 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
American National Standards Institute (ANSI) International Committee for Information Technology Standards (INCITS), #359-2004	This standard describes RBAC features that have achieved acceptance in the commercial marketplace. It includes a reference model and functional specifications for the RBAC features defined in the reference model. It is intended for (1) software engineers and product development managers who design products incorporating access control features; and (2) managers and procurement officials who seek to acquire computer security products with features that provide access control Capabilities in accordance with commonly known and understood terminology and functional. For more information visit <a href="http://www.ansi.org">www.ansi.org</a>



## 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
None			



## 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.

- HITSP/IS07 Medication Management

**Table 6-1 Functional Requirements**

Functional Requirement	Information Exchange	Data Requirements	Analysis
Medication orders on discharge or transfer	C	Full complement of electronic prescribing data elements	This is to insure that there are no barriers to medication orders being sent outside of ordering facility, e.g., on discharge or transfer HITSP/TP43 clearly supports HL7 for inpatient medication orders and NCPDP for ambulatory prescriptions, but is not clear on when one or the other MUST BE USED. This is specified in HITSP/CAP118-C[101], HL7 inpatient, NCPDP outpatient. <b>No changes needed to HITSP/CAP118</b>
Retrieve allergy information As document As part of document As transaction Retrieve medication history information As document As part of document As transaction			May overlap with HITSP/CAP119 Question for public review: Is the exchange of allergy information/medication history part of the medication process (another or new CAP), or a supplementary process (outside of HITSP/CAP118) <b>Consider this:</b> the retrieval of information is a step preceding the medication order. It informs the order but is not necessary in the process. Therefore, we <b>should not add this functionality to HITSP/CAP118</b> , but deal with it in HITSP/IS07. In HITSP/IS07 we could use HITSP/CAP119 for allergy and medication information (either as a part of a document or as a distinct document). We should consider creating a new Capability for message-based RX history (NCPDP Medication History Request (RXHREQ) and Medication History Response (RXHRES). or HL7 Query) (this also supports reuse in other IS's)
Co-signature support in medication orders	C		NCPDP SCRIPT 10.1 has PVD Ø1Ø-47Ø5, valued SU identifies PVD segment as Supervising provider. There are no current constraints in HITSP/CAP118 or



			HITSP/TP43 that prevent the use of this field. <b>No change to HITSP/CAP118 or HITSP/TP43.</b> HL7 V2.5.1 does not directly support a secondary provider signature. (Some local implementations are known.) HL7 V2.7 introduces the PRT – Participation Information Segment, which does support multiple provider types (Admitting, Attending, Consulting, Ordering, Verifying). <b>A GAP until we can introduce HL7 V2.7</b>
Pharmacy-initiated transactions Dispense status Change request Refill authorization request <other>	C		Confirmed that HITSP/TP43 supports pharmacy-initiated transactions. <b>No additions or changes seen as necessary to HITSP/TP43 or HITSP/CAP118</b>
Inclusion of patient demographics (and other non-medication information) in medication orders (and discharge planning)	C	NCPDP PTT, COO, OBS, etc segments HL7 PID, PD1, PV1, PV2, GT1, IN1, IN2, etc segments	Confirmed that HITSP/TP43 includes all (known to be desired) patient demographic and other non-clinical information in both NCPDP transactions and HL7 messages. <b>No additions or changes seen as necessary to HITSP/TP43 or HITSP/CAP118</b>
Structure SIG support in medication orders	C	Data elements from NCPDP Structured SIG 1.0	NCPDP Structured SIG 1.0 was introduced in SCRIPT 10.4. CAP118 uses SCRIPT 10.1. <b>A GAP until we can introduce SCRIPT 10.4 or later</b> HL7 V2.5.1 may be able to support NCPDP Structured SIG, but requires a map to determine how to support all identified elements. <b>This mapping effort will take some time, could it be incorporated into the rewrite of HITSP/IS07? A GAP until then?</b>

**Table 6-2 New Exchange Contents Needed**

Exchange Content Name	Exchange Content Definition	Data Requirements	IEs Used
None			

**Table 6-3 New Data Requirements Needed**

Data Requirement Number (DR)	Description
None	



## 7.0 DOCUMENT UPDATES

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

### 7.1 SEPTEMBER 30, 2009

No changes. This is the first published version of the document.

### 7.2 NOVEMBER 9, 2009

Updated following Consumer Perspective Technical Committee Medication Gaps Working Group review.

### 7.3 JANUARY 18, 2010

The changes in this cycle address the following comments received during the November 2009 public review and comment period:

- Incorporated all of the 15 Public Comment TC dispositions into the document
- Added/restored missing information in (all changes relative to document prior to template update)
  - External Interfaces of Capability - clarified content names, aligned with master list
  - Table 2-2 Definitions of System Roles
    - Health Plan removed interface 6
    - Medication Order Intermediary added definition footnote, added eRx Trusted Network as example system, added interfaces 2 and 4
  - Table 2-3 Information Exchanges Mapped to External Interfaces - updated interface labels (missing a letter)
  - Table 3-3 Topology Related Options – System-to-HIE now Available
  - Table 4-2 Information Exchanges Mapped to Constructs – removed Exchange C relative to HITSP/SC114
  - Table 5-3 Selected Standards
    - Removed CAQH CORE related standards
    - Added NCPDP Telecommunications D.0
- Added clarifying text to Figure 2-1 External Interfaces of Capability. (subsequently dropped when implementing new template)
- Reformatted the document content to adhere to the new HITSP document templates
- Added diagrams and tables based on the new HITSP document templates

The associated comment numbers for these updates are as follows:

8435, 8436, 8437, 8443, 8444, 8445, 8470, 8471, 8479, 8483, 8484, 8485, 8506, 8647, 8648.

The full text of the comments along with the Technical Committee's disposition can be reviewed on the [HITSP Public Web Site](#).

Updated document to HITSP Capability Template Version 2.3

### 7.4 JANUARY 25, 2010

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

