IHE Change Proposal

Tracking information

IHE Domain:	Sharing of IPS
Change Proposal ID:	CP-ITI-1318
Change Proposal Status:	Completed
Date of last update:	2026-01-11
Person assigned:	Martí Pàmies

Change Proposal Summary Information

Adding HL7 CDA IPS support	
Submitter's Name(s) and email address(es):	Martí Pàmies (martipamies@vico.org)
Submission Date:	2025-01-31
Profile(s) affected:	sIPS
Actor(s) affected:	Content Creator, Content Consumer
IHE Technical Framework or Supplement modified:	Sharing of IPS (sIPS) (v1.0.0) 2023-11-17
Volume(s) and Section(s) affected:	

Detailed Rationale for Change:

At 2024 EU Connectathon at Trieste, several companies passed IPS CDA profile as content creator/consumer. Once this first endavour overcomed, some monitors encouraged us to pass sIPS on next EU-CAT at Viena. So we then began to read documentation on sIPS, and we realize thas on sIPS only IPS FHIR is allowed.

Major of this companies do not have any experience on XDS, and just someones on MHD, so we would like to use IHE MHD transactions like Simplified Publish Option [ITI-65|ITI-105], or Generate Metadata [ITI-106],to share IPS CDA

Based on IHE External Validation Service Front-end IPS CDA validation logs, we guess there are several companies intereseted on IPS CDA, and may be not all of them are familiar with XDS, so they will appriciate using sIPS to validate IPS CDA Sharing.

So once that exposed, we would ask to add support for IPS CDA on sIPS profile

Proposed Change(s)

Editor: Edit Section 1:56 Sharing of IPS (sIPS) replace paragraph 3 by the following

1:56 Sharing of IPS (sIPS)

~~This profile leverages the HL7 IPS content specification for FHIR. Due to the minimal global uptake of the CDA encoding of the IPS at this time, the focus of the sIPS Profile is currently based on the specification provided in the HL7 FHIR IPS IG. Any document conforming to the HL7 base IPS specification can be exchanged using sIPS.~~

This profile leverages the HL7 IPS content specification for both FHIR IG and CDA IG. Any document conforming to the HL7 base IPS specification can be exchanged using sIPS.

Editor: Replace Section 1:56.1.1.1 Content Creator by the following

1:56.1.1.1 Content Creator

The Content Creator creates the IPS content and shares it using one of the methods defined in the IHE Document Sharing Health Information Exchange.

FHIR Capability Statement for Content Creator

The HL7 IPS is serialized **or: into a FHIR Document Bundle and encoded as a document following the PCC Serializing FHIR Documents, or into CDA**. The HL7 IPS is mapped to the Document Sharing Metadata according to PCC Volume 2: 4.1. This shows how to map the FHIR Composition resource **and CDA** elements into XDS/XDM/XDR/XCA Document Entry and MHD FHIR DocumentReference elements.

Editor: Replace Section 1:56.1.1.2 Content Consumer by the following

1:56.1.1.2 Content Consumer

The Content Consumer consumes the IPS content and obtains it using one of the methods defined in the IHE Document Sharing Health Information Exchange.

FHIR Capability Statement for Content Consumer

The HL7 IPS is mapped to the Document Sharing Metadata according to PCC Volume 2: 4.1. This shows how to map the FHIR Composition resource **and CDA** elements into XDS/XDM/XDR/XCA Document Entry and MHD FHIR DocumentReference elements

Editor: Replace Section 1:56.1.1.2 Content Consumer by the following

1:56.1.1.2 Content Consumer

The Content Consumer consumes the IPS content and obtains it using one of the methods defined in the IHE Document Sharing Health Information Exchange.

FHIR Capability Statement for Content Consumer

The HL7 IPS is mapped to the Document Sharing Metadata according to PCC Volume 2: 4.1. This shows how to map the FHIR Composition resource **and CDA** elements into XDS/XDM/XDR/XCA Document Entry and MHD FHIR DocumentReference elements.

Editor: Replace Section 1:56.1.2 IPS Content by the following

1:56.1.2 IPS Content

The Content Creator and Content Consumer share the IPS content using one of the methods defined in the IHE Document Sharing Health Information Exchange.

The HL7 IPS is mapped to the Document Sharing Metadata according to PCC Volume 2: 4.1. This shows how to map the FHIR Composition resource **and CDA** elements into XDS/XDM/XDR/XCA Document Entry and MHD FHIR DocumentReference elements.

Editor: Replace Section 1:56.2 sIPS Actor Options by the following

1:56.2 sIPS Actor Options

Options that may be selected for each actor in this implementation guide, are listed in Table 3.2-1 below. Dependencies between options when applicable are specified in notes.

Actor	Option
Content Consumer	View **FHIR Option**
Content Consumer	Document Import **FHIR Option**
Content Consumer	Discrete Data Import **FHIR Option**
Content Consumer	**View CDA Option**
Content Consumer	**Document Import CDA Option**
Content Consumer	**Discrete Data Import CDA Option**

Editor: Section 1:56.2.1 View Option replace section title by the following

1:56.2.1 View Option **FHIR Option**

Editor: Section 1:56.2.2 Document Import Option replace title by the following

1:56.2.2 Document Import Option **FHIR Option** .

Editor: Section 1:56.2.3 Discrete Data Import Option replace title by the following

1:56.2.3 Discrete Data Import Option **FHIR Option** .

*Editor: Add the following section**S** after Section 1:56.2.3*

1:56.2.4 View CDA Option

This option defines the processing requirements placed on Content Consumers for providing access, rendering and management of the medical document. See the View Option in IHE PCC TF-2:3.1.1 for more details on this option.

The Content Consumer Actor shall be able to present an view of the document. Minimal view guidance following CDA Documents Human Readability and Rendering.

1:56.2.5 Document Import CDA Option

This option defines the processing requirements placed on Content Consumers for providing access, and importing the entire medical document and managing it as part of the patient record. See the Document Import Option in IHE PCC TF-2:3.1.2 for more details on this option.

1:56.2.3 Discrete Data Import CDA Option

This option defines the processing requirements placed on Content Consumers for providing access, and importing discrete data from selected sections of the medical document and managing them as part of the patient record. See the Discrete Data Import Option in IHE PCC TF-2:3.1.4 for more details on this option.

Editor: Edit Section 1:56.4 sIPS Overview by the following

1:56.4 sIPS Overview

This Implementation Guide simply hooks ~~HL7 IPS~~ **HL7 IPS FHIR/CDA** to IHE Document Sharing (XDS, XCA, XDR, XDM, MHD, MHDS), using existing Content Creator / Content Consumer actors that already support this binding.

Editor: Edit Section 1:56.4.1 Concepts Replace second parragraph by the following

1:56.4.1 Concepts

The Concepts of the HL7 ~~International Patient Summary (IPS)~~ **International Patient Summary (IPS)** are defined in the ~~HL7 Implementation Guide~~. HL7 **IPS FHIR Implementation Guide and IPS CDA Implementation Guide**

*Editor: Edit Section 1:56.4.2 Use Cases Replace all ~~FHIR~~ ocurrences by **FHIR/CDA***

1:56.4.2.1 Publishing IPS

Given that the HL7 **FHIR/CDA** IPS Implementation Guide provides a Medical Summary in **FHIR/CDA** format

And that IHE Document Sharing is a recognized document sharing infrastructure

When a **FHIR/CDA** IPS is published

And there is a need to make it discoverable

Then I need to have clear specification on how I express in Document Sharing the existence of a **FHIR/CDA** IPS sources

Note: the above use-case is written in Gherkin, a use-case language optimized for automated testing.

See further discussion:

- General explanation of Centralized Discovery and Retrieve in the HIE Whitepaper
- General explanation of Federated Discover and Retrieve in the HIE Whitepaper
- General explanation of Document Publishing in the HIE Whitepaper

1:56.4.2.2 Making On-Demand Access to IPS Available

Given that the HL7 **FHIR/CDA** IPS Implementation Guide provides a Medical Summary in **FHIR/CDA** format

And that IHE Document Sharing is a recognized document sharing infrastructure

When an **FHIR/CDA** IPS could be made available on-demand

And there is a need to make it discoverable

Then I need to have clear specification on how I express in Document Sharing the existence of a **FHIR/CDA** IPS sources

See further discussion:

- General explanation of Centralized Discovery and Retrieve in the HIE Whitepaper
- General explanation of Federated Discover and Retrieve in the HIE Whitepaper
- General explanation of Dynamic Documents in the HIE Whitepaper
- Content Module specific for IPS On-Demand - 3:5.9.2.1.2 On-Demand

1:56.4.2.3 Retrieving an IPS

Given that the HL7 **FHIR/CDA** IPS Implementation Guide provides a Medical Summary in **FHIR/CDA** format

And that IHE Document Sharing is a recognized document sharing infrastructure

When an application needs access to a **FHIR/CDA** IPS

Then I need to have clear specification on how I use Document Sharing to find **FHIR/CDA** IPS sources

See further discussion:

- General explanation of Centralized Discovery and Retrieve in the HIE Whitepaper

- General explanation of Federated Discover and Retrieve in the HIE Whitepaper
- General explanation of Document Discovery and retrieval in the HIE Whitepaper

1:56.4.2.4 Pushing an IPS to a Recipient

Given that the HL7 **FHIR/CDA** IPS Implementation Guide provides a Medical Summary in **FHIR/CDA** format

And that IHE Document Sharing is a recognized document sharing infrastructure

When an **FHIR/CDA** IPS needs to be sent to a specific recipient

Then I need to have clear specification on how I use Document Sharing to find **FHIR/CDA** IPS sources

See further discussion:

- General explanation of PUSH model of Document Sharing in the HIE Whitepaper

Editor: Edit Section 3:5.9 International Patient Summary Content Module, replace FHIR IPS IG to IHE IPS Profile

3:5.9 International Patient Summary Content Module

An ~~International Patient Summary (IPS) document~~ **International Patient Summary (IPS) document** is an electronic health record extract containing essential healthcare information about a subject of care. As specified in EN ISO 27269, it is designed for supporting the use case scenario for "unplanned, cross border care", but it is not limited to it. It is intended to be international, i.e., to provide generic solutions for global application beyond a particular region or country.

The IPS dataset is minimal and non-exhaustive; specialty-agnostic and condition-independent; but still clinically relevant. The ~~IPS document specification is published by HL7~~ **IPS profile specification is published by IHE.**

The IHE sIPS does not modify the ~~HL7 IPS specification~~ **IHE IPS profile**, but provides for methods of sharing the IPS using IHE Document Sharing. The IPS, as a "current summary", is an excellent document for the "On-Demand" capability of the Document Sharing infrastructure. On-Demand is available in XDS with On-Demand Documents Option, XCA with On-Demand Documents Option, and with MHD/MHDS. Further details for IPS use of On-Demand are outlined below in section 3.9.2.1.2.

The IPS document is composed by a set of robust, well-defined and potentially reusable sets of core data items (indicated as IPS library in the figure below). The tight focus of the IPS on unplanned care is in this case not a limitation, but, on the contrary, facilitates their potential re-use beyond the IPS scope.

Editor: Edit Section 3:5.9.1 Referenced Standards, add IPS CDA IG

3:5.9.1 Referenced Standards

- ~~**International Patient Summary (IPS) document**~~
- **FHIR International Patient Summary (IPS) implementation guide**
- **CDA International Patient Summary (IPS) implementation guide**

Editor: Edit Section 3:5.9.2 Document Sharing Metadata, add reference de IPS CDA version

3:5.9 International Patient Summary Content Module

The IHE Document Sharing infrastructures define a common set of Document Metadata, Submission Set, and Folders. There are defined methods of communicating documents including push, centralized registry, and federated discovery and retrieval. The metadata model is designed to be content agnostic so it can support any past or future document specification, which enables all existing networks to support the IPS without modification.

A Document Entry (aka FHIR DocumentReference) is metadata about a document. This metadata is designed to support provenance, lifecycle, authenticity, patient identity, privacy, and exchange of the document that is described. The document can be any kind of format, in this content module we are focused on ~~the International Patient Summary (IPS) document and the format of JSON or XML~~ **the International Patient Summary (IPS) FHIR document (both JSON and XML formats), and the International Patient Summary (IPS) CDA document**. Submission Set is the metadata about the publication event, who published these documents, why, when, where, etc. The Folder is an adhoc grouping mechanism that can be used for purposes like grouping a clinical episode. Further explanation of the Value of Metadata is covered in the HIE Whitepaper.

There is a limitation in the Document Sharing metadata, **when sharing FHIR IPS documents**, as ~~that~~ each Document entry must have only one mime-type. The FHIR model supports many mime-type encodings, as does IPS. Some environments may choose one of the FHIR mime-type encodings, where others may need both JSON and XML mime-type encoding of the IPS document bundle. Where more than one mime-type encoding is needed, one would need to register multiple Document entries and indicate they are transforms only differing in mime-type. With multiple Document entries registered, the Document Consumer can pick the mime-type desired, and with the transform relationship be confident that there is no semantic difference between the two mime-type encodings.

To fill out a Document Entry there is a mapping table at PCC TF-2: 4.1.1 that provides guidance. ~~The mapping to a FHIR DocumentReference from the document FHIR Composition is the same as is found in the FHIR Core DocumentReference Mapping from Composition.~~

The mapping to a FHIR DocumentReference from the document FHIR Composition is the same as is found in the FHIR Core DocumentReference Mapping from Composition, and

the mapping from the document CDA is the same as is found in the FHIR Core DocumentReference Mapping from CDA. PCC TF-2: 4.1.1 provides additional guidance.

Editor: Edit Section 3:5.9.2.1 DocumentEntry/DocumentReference Metadata,

3:5.9.2.1 DocumentEntry/DocumentReference Metadata

IPS is a ~~FHIR~~ **FHIR/CDA** document, the Document Entry metadata is derived from the FHIR document Composition Resource **and the CDA Document** following the Document Sharing Metadata requirements in the PCC TF-2:4 unless otherwise specified below

Editor: Repalce Section 3:5.9.2.1.1 FormatCode,

3:5.9.2.1.1 FormatCode

The FormatCode code system shall be http://terminology.hl7.org/CodeSystem/v3-HL7DocumentFormatCodes and the code a value from the following table

Code	Display	Definition
urn:hl7-org:sdwg:ips:fhir-composition:1.1	HL7 fhir-ips:1.1	HL7 FHIR International Patient Summary (IPS) Implementation Guide version 1.1
urn:hl7-org:sdwg:ips:fhir-composition:2.0	HL7 fhir-ips:2.0	HL7 FHIR International Patient Summary (IPS) Implementation Guide version 2.0
urn:hl7-org:sdwg:ips:cda-structuredBody:1.1	HL7 cda-ips:1.1	HL7 CDA International Patient Summary (IPS) Implementation Guide version 1.1

Editor: Edit 3:5.9.2.1.2 On-Demand, edit text (no change on figure are necessary)

3:5.9.2.1.2 On-Demand

When the Document Source is willing to offer to Document Consumers the ability for an on on-demand instance of the IPS to be returned using current data, it can register a Document Entry (DocumentReference) as "On-Demand". XDS and XCA the On-Demand entry is indicated with a given On-Demand ObjectType as expressed in the given options, in MHD/MHDS an On-Demand entry is indicated with an absent .size and .hash. The Document Entry (DocumentReference) will express specific parameters that would be used if the Document Consumer were to request a document be created "On-Demand"; such as timeperiod refinements, setting, language, etc.

When the On-Demand entry is requested by a Document Consumer **and IPS is a FHIR Composition**, the responding actor may chose to utilize the IPS $summary operation. This use of the $summary operation is not required to be the method used.

The returned document would, based on configuration, result in an additional DocumentEntry/DocumentReference (aka Snapshot) existing that is in snapshot relationship with the On-Demand DocumentEntry/DocumentReference, and representing the returned document metadata. This snapshot is a "stable" instance that can be retrieved again in the future. More discussion of the relationship between the on-demand and the instances that are preserved as snapshots is explain in HIE Whitepaper: Dynamic Documents.

When a document is produced on-demand, it is typical for this to be created by software without a human interaction. A summary often includes rules such as timeframe of content to include, thus the software is indeed crafting the Composition content; thus it is not just assembling a Bundle **or a CDA** based on the pre-authored Composition. A software author of a document can be expressed using a FHIR Device Resource **when document is IPS FHIR, or a CDA/author/assignedAuthor/assignedAuthoringDevice when document is IPS CDA** .

The following figure shows one On-Demand Document Entry (DocumentReference) and two instances that have been requested and preserved as snapshots with a snapshot relationship.

Editor: Edit Section 3:5.9.3 Specification, add IPS CDA IG url

3:5.9.3 Specification

This Content Module does not constrain the IPS content. See ~~**IPS content as defined by HL7**~~ **IPS FHIR content and IPS CDA content** for the definition of the IPS content as defined by HL7

Editor: Edit Section 3:5.9.4 Examples, add IPS CDA examples

3:5.9.4 Examples

Given the **FHIR** IPS examples provided in the **FHIR** IPS Implementation Guide, **and the CDA IPS examples provided in the CDA IPS Implementation Guide** the following DocumentReference would be an example as Registered in Document Sharing. Submission Set and Folders are not shown as they are more dependent on the situation of the publication than the content itself.

See example artifacts

- Example **FHIR** Bundle: IPS Bundle example
    - Example DocumentReference for IPS Bundle in XML encoding
    - Example DocumentReference for IPS Bundle in JSON encoding with transform relationship to XML encoding
- **Example: CDA Document example**

o Example DocumentReference for IPS CDA