Australian Government

Australian Digital Health Agency

Core Level One Clinical Document CDA Implementation Guide

24 July 2018 v1.1 Approved for external use Document ID: DH-2580:2018 Australian Digital Health Agency ABN 84 425 496 912, Level 25, 56 Pitt Street, Sydney, NSW 2000 Telephone 1300 901 001 or email <u>help@digitalhealth.gov.au</u> <u>www.digitalhealth.gov.au</u>

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Key Information

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Product Version History

Product ver- sion	Date	Release comments
1.0	22 Jul 2013	Approved for internal release.
		Initial version to enable sharing birth detail documents.
1.1	24 Jul 2018	This version of the specification has been renamed from "Structured Content Free Document" to "Core Level One Clinical Document" to better reflect intended scope and use; it also introduces changes to the design to allow for documents other than birth details.

Related Documents

Name	Version/Release Date
Participation Data Specification	Version 3.3, Issued 30 January 2017
Core Level One Clinical Document Structured Content Specification	Version 1.1, To be published
CDA Rendering Specification	Version 1.0, Issued 07 March 2012
Representing Coding in CDA Documents Implementation Guidance	Version 1.0, Issued 10 October 2011
Clinical Documents Common Conformance Profile	Version 1.7, Issued 21 December 2017

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Acknowledgements

Council of Australian Governments

The Australian Digital Health Agency is jointly funded by the Australian Government and all state and territory governments.

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1 Introduction

1.1 Document Purpose and Scope

This document provides a guide to implementing the logical model detailed by the Australian Digital Health Agency's Core Level One Clinical Document (CLOCD) Structured Content Specification (SCS) as an HL7 Clinical Document Architecture (CDA) Release 2 XML document. This implementation guide is based on Version 1.1 of the CLOCD SCS [DH2018e]. The primary aim of the implementation guide is to take implementers step by step through mapping each data component of the CLOCD SCS to a corresponding CDA attribute or element.

This implementation guide contains descriptions of both constraints on the CDA and, where necessary, custom extensions to the CDA, for the purposes of fulfilling the requirements for Australian implementations of CLOCD. The resulting CDA document can be used for the electronic exchange of CLOCD information between healthcare providers.

In addition, this implementation guide presents conformance requirements against which implementers can attest the conformance of their systems.

This release is intended to inform, and seek feedback from, prospective software system designers and their clinical consultants.

We value your questions, comments and suggestions about this document. Please direct your questions or feedback to <<u>help@digitalhealth.gov.au</u>>.

1.2 Clinical Document Definition

A Clinical Document is defined in the CLOCD SCS [DH2018e] as:

Clinical document containing structured context information, such as author, and containing clinical content as encapsulated data or as section narrative.

1.3 HL7 Clinical Document Architecture

CDA is a document markup standard that specifies the structure and semantics of clinical documents for the purpose of supporting interoperable exchange and use at human and system levels.

We have chosen CDA as the format for electronic clinical documents because it is consistent with our commitment to a service and document–oriented approach to electronic information exchange, which will contribute to future electronic health records.

Some of the advantages of CDA are:

- It is machine computable and human-readable.
- It provides a standardised display of clinical information without loss of clinical meaning.
- It provides assurance of clinical quality and safety more effectively than message-based interfaces, by storing and displaying the clinical data as entered by the clinician.
- It provides better support than HL7 V2 messages for:
 - o more complex information structures, such as pathology synoptic reporting; and
 - o terminologies such as SNOMED CT.
- It supports legal attestation by the clinician (requiring that a document has been signed manually or electronically by the responsible individual).

- It is able to be processed by unsophisticated applications (displayed in web browsers, for instance).
- It provides a number of levels of compliance to assist with technical implementation and migration.
- It aligns Australia with e-health initiatives in other countries (such as Canada, UK, USA, Brazil, Germany and Finland).

1.4 Intended Audience

This document is aimed at software development teams, architects, designers, clinicians and informatics researchers who are responsible for the delivery of clinical applications, infrastructure components and messaging interfaces, and also for those who wish to evaluate the clinical suitability of the Agency-endorsed specifications.

This document and related artefacts are technical in nature and the audience is expected to be familiar with the language of health data specifications and to have some familiarity with health information standards and specifications, such as CDA and Standards Australia IT-014 documents. Definitions and examples are provided to clarify relevant terminology usage and intent.

1.5 Document Map

This implementation guide is not intended to be used in isolation. Companion documents are listed below:



1. *Data Types in NEHTA Specifications: A Profile of the ISO 21090 Specification [NEHT2010c]* is a detailed description of the data types used within the structured content specification.

2. *Participation Data Specification [DH2017a]* contains the full specification that forms the basis of all participations contained in our structured content specifications.

3. Core Level One Clinical Document Structured Content Specification [DH2018e] is a clinical content specification describing the logical data structures, data components, and value domains that constitute a Clinical Document.

4. This document.

5. Applicable clinical document conformance profile is a conformance specification that is specific to a particular clinical document type, e.g. Discharge Summary conformance profile, and defines additional conformance requirements that are specific to a particular clinical document type and may override this document.

1.6 Acronyms

CDA	Clinical Document Architecture
CLOCD	Core Level One Clinical Document
DCM	Detailed Clinical Model
HL7	Health Level Seven
NCTIS	National Clinical Terminology and Information Service
OID	Object Identifier
RIM	Reference Information Model
SCS	Structured Content Specification
UUID	Universally Unique Identifier
XHTML	Extensible Hypertext Markup Language
XML	Extensible Markup Language
XSD	XML Schema Definition
XSL	Extensible Stylesheet Language

1.7 Keywords

Where used in this document, the keywords **SHALL**, **SHOULD**, **MAY**, **SHALL NOT** and **SHOULD NOT** are to be interpreted as described in *Key Words for Use in RFCs to Indicate Requirement Levels* [*RFC2119*].

Keywords used in this document

Keyword	Interpretation
SHALL	This word, or the term REQUIRED , means that the statement is an absolute requirement of the specification.
SHOULD	This word, or the term RECOMMENDED , means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
ΜΑΥ	This word, or the term OPTIONAL , means that an item is truly optional. One implementer may choose to include the item because a particular implementation requires it, or because the implementer determines that it enhances the implementation while another implementer may omit the same item. An implementation which does not include a particular option must be prepared to interoperate with another implementation which does include the option, perhaps with reduced functionality. In the same vein, an implementation which does include a par- ticular option must be prepared to interoperate with another implementation which does include a par- ticular option must be prepared to interoperate with another implementation which does not include the option (except of course, for the feature the option provides).
SHALL NOT	This phrase means that the statement is an absolute prohibition of the specification.

Keyword	Interpretation
SHOULD NOT	This phrase, or the phrase NOT RECOMMENDED means that there may exist valid reasons in particular circum- stances when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour described with this label.

1.8 Conformance

This document describes how the CLOCD SCS is implemented as a CDA document. Conformance claims are not made against this implementation guide directly; rather, they are made against additional conformance profiles documented elsewhere. Any document that claims conformance to any derived conformance profile **SHALL** meet these base requirements:

- It SHALL be a valid HL7 CDA instance. In particular:
 - It SHALL be valid against the HL7 CDA Schema (once extensions have been removed, see W3C XML Schema).
 - It **SHALL** conform to the HL7 V3 R1 data type specification.
 - o It SHALL conform to the semantics of the RIM and Structural Vocabulary.
- It **SHALL** be valid against the Australian Digital Health Agency CDA Schema that accompanies this implementation guide after any additional extensions not in the Australian Digital Health Agency extension namespace have been removed, along with any other CDA content not described by this implementation guide.
- It SHALL use the mappings as they are stated in this document.
- It SHALL use all fixed values specified in the mappings (e.g. @attribute="FIXED_VALUE").
- If the vocabulary has been explicitly stated as 'NS' it **SHALL** be interpreted as:

NS = In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the <u>HL7 code set registration procedure</u>¹ with an appropriate object identifier (OID), and **SHALL** be publicly available.

When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

- It **SHALL** be valid against the additional conformance requirements that are established in this document (i.e. any normative use of the word 'shall' identified by the term presented in uppercase and bold typeface).
- The narrative **SHALL** conform to the requirements described in this implementation guide.
- The document SHALL conform to the requirements specified in the CDA Rendering Specification [NEHT2012s].
- The data as contained in the data types SHALL conform to the additional data type specification [NEHT2010c].
- Any additional content included in the CDA document that is not described by this implementation guide **SHALL NOT** qualify or negate content described by this implementation guide and it **SHALL** be clinically safe for receivers of the document to ignore the non-narrative additions when interpreting the existing content.

A system that *consumes* CLOCD CDA documents may claim conformance if it correctly processes conformant instance documents, including correctly understanding all the information in the header. It may, but is not required to, reject non-conformant documents. Conformant systems that consume CLOCD CDA documents are not required to process any or all of the structured data entries in the CDA document, but they **SHALL** be able to correctly render the document for end-users when appropriate (see Clinical Document Architecture Release 2).

Conformance profiles of this document **MAY** make additional rules that override this document in regard to:

¹ http://www.hl7.org/oid/index.cfm?ref=footer

- Allowing the use of alternative value sets in place of the value sets specified in this document.
- Allowing the use of alternative identifiers in place of the Healthcare Identifiers Service identifiers.
- Making required data elements and section divisions optional.

1.9 Known Issues

This section lists known issues with this specification at the time of publishing. We are working on solutions to these issues and encourage comments to help us develop these solutions.

Reference	Description
Level 1 document	Limited inclusion of structured data in the CONTENT of the clinical document is intentional. This restriction is in place to emulate a Level 1 document. The typical level represented in CONTENT is Level 3.
Alignment with the HL7 Fast Healthcare Interoperability Re- sources (FHIR®) standard	The concepts as modelled in this specification, and in particular participation, are not fully consistent with HL7 FHIR resources. Work is underway to address alignment to HL7 FHIR and is expected to result in adjustment to the structure of this model.
clinical document - specific templateId	The specific clinical document conformance profile will specify the templateld associated with the clinical document type and should be read in conjunction with this document.
List of allowed document types	The specific clinical document conformance profile will specify the templateId associated with the clinical document type and should be read in conjunction with this document.
	Work is underway to define the allowed document types in a value set that will be available via the National Clinical Terminology Service (NCTS).
Throughout document: XML Examples	The examples present in this specification are taken from mul- tiple sample or test referrals, each XML fragment is a standalone fragment that may not fit with other fragments present in the specification.
	While every effort has been taken to ensure that the examples are consistent with the normative mappings in this message specification, care needs to be taken when copying XML ex- amples for implementation and validation.
	Where there are conflicts with the written message specification or schema and the XML examples, the specification or schema takes precedence.
Throughout document: R-MIMs	While every effort has been taken to ensure that the R-MIM diagrams are consistent with the normative mappings in this message specification, there may be a few discrepancies between R-MIM diagrams and CDA mapping tables. The CDA mapping takes precedence if there are discrepancies.
Throughout document: Participation types	The participation types in the OID register are not exhaustive, hence the absence of a participation type is not an error.
Throughout document	Australian vs American spelling - in cases where definitions have been taken from HL7 documentation, the American spelling has been preserved, e.g. organization rather than or- ganisation.

Reference	Description	
6.1.1 SUBJECT OF CARE :: LOCATION OF PARTICIPATION	LOCATION OF PARTICIPATION is not currently mapped.	
6.1.2 DOCUMENT AUTHOR :: LOCATION OF PARTICIPATION	LOCATION OF PARTICIPATION is not currently mapped.	
6.1.2.1 Document Author as a Person :: DEMOGRAPHIC DATA	The only DEMOGRAPHIC DATA child data components available to a participant that is not a SUBJECT OF CARE are Date of Birth and Sex. In order to present this content in a readable fashion no child data components for the logical data group DEMO- GRAPHIC DATA have been included as rows in the mapping table. Instead the CDA Schema elements that correspond to Date of Birth and Sex have been mapped to DEMOGRAPHIC DATA.	
6.1.2.2 Document Author as a Device :: ENTITLEMENT	Prohibition of ENTITLEMENT is not currently mapped.	
6.1.3.1 HEALTHCARE FACILITY :: LOCATION OF PARTICIPATION	LOCATION OF PARTICIPATION is not currently mapped.	
6.1.3.1 HEALTHCARE FACILITY :: ENTITLEMENT	Prohibition of ENTITLEMENT is not currently mapped.	
6.1.4.1 PARTICIPANT as a PERSON :: LOCATION OF PARTICIPA- TION	LOCATION OF PARTICIPATION is not currently mapped.	
6.1.4.2 PARTICIPANT as an ORGANISATION :: ENTITLEMENT	LOCATION OF PARTICIPATION is not currently mapped.	
8.5 Person Name :: Preferred Name Indicator code	A code for representing "preferred name" has been requested from HL7 International but is not currently available. The proposed code "PRF" for representing preferred name is replaced with "D" <i>Customary Name</i> . In October 2015, the HL7 Patient Administration Workgroup approved a change to the description of <i>Customary Name</i> with code "D" to incorporate the preferred name. This change applies to HL7 Table 0200 Name Type. The definition of <i>Customary Name</i> was changed from "Known as/conventional/the one you use" to "Known as/conventional/the one you use. May also be known as a preferred name". An updated Australian Digital Health Agency schema allowing use of a code for preferred name will be made available after HL7 V2.9 (which contains the above updates) is published.	
10 Vocabularies and Code Sets: AS 4846-2006 and AS 5017- 2006 superseded	AS 4846-2014 Person and provider identification in healthcare has been published and supersedes both AS 4846-2006 Healthcare provider identification and AS 5017-2006 Healthcare client identification.	
10.2 AS 5017-2006 Health Care Client Identifier Sex	The codeSystemName value in 10.2 AS 5017-2006 Health Care Client Identifier Sex is not the name associated with the OID in the <u>HL7 OID Registry</u> ² .	

² http://www.hl7.org/oid/index.cfm?ref=footer

2 Guide for Use

This document describes how to properly implement the CLOCD SCS [DH2018e] as a conformant HL7 CDA XML document. The CLOCD specification is contained in two publications:

- 1) A logical specification, which, in conjunction with its related documents (see Document Map), describes the Clinical Document in a form that is consistent with other Agency specifications. It has the potential to be implemented in multiple different exchange formats as is most suitable for a particular context. It describes the data content of a Clinical Document as a hierarchy of data components and provides documentation concerning their use and meaning.
- 2) An implementation guide (this document), which specifies how the data described in the SCS is properly represented in a CDA document.

In order to properly implement this specification, the reader should be familiar with the CLOCD SCS and the HL7 CDA documentation, and understand how to read this document.

For further information regarding our structured content specifications, see the links in Document Map.

2.1 Clinical Document Architecture Release 2

A CDA document is an XML document built following the rules described in the CDA specification, which conforms to the HL7 CDA Schema provided by HL7. The CDA document is based on the semantics provided by the *HL7 V3 RIM, Data types and Vocabulary [HL7V3DT]*.

A CDA document has two main parts: the header and the body.

The CDA document header is consistent across all CDA documents, regardless of document type. The header identifies and classifies the document and provides information on authentication, the encounter, the patient, and the involved providers.

The body contains the clinical report. The body can be marked-up text (narrative, renderable text) or a combination of both marked-up text and structured data. The marked-up text can be transformed to XHTML and displayed to a human. The structured data allows machine processing of the information shown in the narrative section.

It is a requirement that all of the clinical information **SHALL** be marked up in CDA narratives. These narratives are CDA-defined hypertext, able to be rendered in web browsers with only a standard accompanying transformation. This transformation is produced and distributed by HL7.

It is a conformance requirement that the rendered narrative **SHALL** be able to stand alone as a source of authenticated information for consuming parties. Content from the CDA body **SHALL NOT** be omitted from the narrative.

Further information and guidance on the CDA narrative is available in Appendix A, CDA Narratives.

The following references are recommended to gain a better understanding of CDA:

- HL7 Clinical Document Architecture [HL7CDAR2]
- HL7 V3 RIM, Data types and Vocabulary [HL7V3DT]
- CDA Examples [RING2009]
- CDA Validation Tools: infoway_release_2_2X_18.zip [INFO2009]

2.2 Mapping Interpretation

The core of this implementation guide is a mapping from the CLOCD SCS to the CDA document representation.

The mappings may not be deterministic; in some cases the differences in approach between the logical model specified in the SCS and the CDA implementation guide makes it inappropriate to have a 1:1 mapping, or any simple mapping that can be represented in a transform. This is especially true for names and addresses, where the SCS requirements, based on Australian Standards such as AS 5017 2006, differ from the HL7 data types and vocabularies which are not based on these standards.

Many of the mappings use one of several common patterns for mapping between the SCS and the CDA document. These common mapping patterns are described in 8 *Common Patterns*.

An example of a mapping section of this implementation guide is illustrated below.

x.x ITEM NAME

Identification (normative)

NameITEM NAMEMetadata typeMetadata type e.g. Section, Data Group or Data Element

Relationships (normative)

Children

Data Type	Name	Occurrence	
Icon illustrating the Metadata	ITEM NAME (This is a link to another section containing the mapping for this item. Item names in upper case indicate	The number of instances of this child item that may occur.	
or Data type.	that the item is a section or data group. Item names in title case indicate that the item is a data element).		

Parent

Data Type	Name	Occurrences (child within parent)
Icon illustrating the Metadata	ITEM NAME (This is a link to another section containing the mapping for this item. Item names in upper case indicate	The number of instances of the child item within the parent that
or Data type.	that the item is a section or data group. Item names in title case indicate that the item is a data element).	may occur.

CDA R-MIM Representation (non-normative)

The text contains an explanation of the mapping.

The model is a constrained representation of the R-MIM. The colours used in the CDA model align with the usage in the R-MIM. In many cases the cardinalities shown in the model will be less constrained than those shown in the mapping table.



Figure 2.1. Example - Header Part



Figure 2.2. Example - Body Part

CDA Mapping (normative)

SCS Data Component	Data Compon- ent Definition	Card	CDA Schema Data Element	Vocab	Comments			
CDA Element Type (Header, Body L	CDA Element Type (Header, Body Level 2 etc.)		Context: Parent of elements below					
CDA Element Type (Header, Body L The path in the SCS. Each section in this document cor- responds to an SCS section or data group, and is scoped by that sec- tion or data group. The hierarchical path uses ">" as a separator for paths within the SCS data hier- archy. If there is a name in round brackets after the path, this is the name of the reused data group for the SCS component. The data component in bold text (the last in the path) is the data component for this row. i.e. Parent Data Component > Child Data Component		The cardinality of the data element in the SCS. The cardinality of the data element in the SCS maps to the cardinality of the ele- ment in the CDA docu- ment. Where the cardinality of the SCS data element is more constrained than the cardinality of the CDA ele- ment then the SCS cardinal- ity takes precedence. That is, if an element is mandat- ory in the SCS and optional in CDA then it will also be- come mandatory in the CDA document. If an item with a maximum cardinality > 1 maps to an XML attribute, the attribute will contain multiple values separated by spaces. No such item will have valid values that themselves contain spaces.	Context: Parent of elements below The schema element(s) in the CDA document that correspond(s) to the SCS data component. The syntax for this is similar to XPath: (/name([index]))n(/cpattern>) Where: () indicates optional () in means a section that may repeat () indicates optional () in means a section that may repeat () indicates optional () indicates () optional	The name of the vocabulary.	Helpful additional information about the mapping.			
			Any fixed attribute values are represented as a separate line of the mapping, such as those shown in Example 2.					
			The path may end with a pattern designator, such as <address>. This indicates that the mapping involves a number of sub-elements of the named element following the pattern, as shown in the name (which is a link to the appropriate pattern in this document).</address>					

How to interpret the following example mapping:

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments		
CDA Header Data Elements	L		Context: /ClinicalDocument/				
Subject of Care	Person who receives care services.	11	recordTarget/patientRole				
n/a	n/a	11	recordTarget/patientRole/ id		Required CDA ele- ment.		
					If there are any entitle- ments for Subject of Care, this value SHALL be the same as: Clinic- alDocument/ compon- ent/ structuredBody/ component[ad- min_obs]/ section/ entry/act/ participant/ participantRole/ id where participantRole/ @classCode = "PAT".		
Subject of Care > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON	An individual who is in the role of healthcare provider, who uses or is a potential user of a healthcare service, or is in some way related to, or a representative of, a subject of care (patient).	11	n/a		Not mapped directly, encompassed implicitly in recordTarget/ patien- tRole/ patient.		
Subject of Care > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > PERSON NAME	The appellation by which an individual may be identified separately from any other within a social context.	1*	recordTarget/patientRole/patient/ <person name=""></person>		See common pattern: Person Name.		
CDA Header Data Elements			Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/section/				
Subject of Care > PARTICIPANT > ENTITLE- MENT	The entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context.	0*	ext:coverage2/@typeCode="COVBY"		See Australian Digital Health Agency CDA ex- tension: Entitlement. All data elements within this section SHALL be deemed as CDA Header data ele- ments for conform- ance assessment.		
			ext:coverage2/ext:entitlement				
			ext:coverage2/ext:entitlement/@classCode="COV"				
			ext:coverage2/ext:entitlement/@moodCode="EVN"				
			ext:coverage2/ext:entitlement/ext:participant/@typeCode="BEN"				
			ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/@classCode="PAT"				
			ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/ ext:id		SHALL hold the same value as ClinicalDocu- ment/ recordTarget /patientRole/ id.		

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
Subject of Care > PARTICIPANT > ENTITLE- MENT > Entitlement Number	A number or code issued for the purpose of identifying the entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context.	11	ext:coverage2/ext:entitlement/ ext:id		
Subject of Care > PARTICIPANT > ENTITLE- MENT > Entitlement Type	The description of the scope of an entitlement.	11	ext:coverage2/ext:entitlement/ext:code	NCTIS: Admin Codes - Entitlement Type	See <code> for avail- able attributes.</code>
Subject of Care > PARTICIPANT > ENTITLE- MENT > Entitlement Validity Duration	The time interval for which an entitlement is valid.	01	ext:coverage2/ext:entitlement/ext:effectiveTime		
Subject of Care > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > EMPLOYMENT DETAIL	A person's occupation and employer.	00	recordTarget/patientRole/patient/ ext:asEmployment		

The Subject of Care (Patient) section is part of the context section of the SCS (as opposed to being part of the content section of the SCS). Although it is located in the context section of the SCS, it contains data components that map to the CDA body, as well as data components that map to the CDA header. The information specifying the location of the elements is in the shaded context header row located above each group of mapping rows. The context remains the same until a new context header row starts.

The first row of the mapping (after the context header row), 'Subject of Care', is a CDA Header element and has a context of '/ClinicalDocument' (the root element of a CDA document). Adding together the context and the mapping using '/' gives a full path of:

1) /ClinicalDocument/recordTarget/patientRole

Due to the fact that 'Subject of Care' is part of the context section of the SCS (as opposed to a content element), information about it and its child elements can be located in the SCS document by finding the data component 'Subject of Care' in the table of contents under the context section, and navigating to the relevant page.

If the data component is part of the content section of the SCS, information about it could be located by finding the data component (or its parent) in the table of contents under the content section of the SCS.

- 2) The next row in the mapping (n/a) is a row that is not defined in the SCS but which is required by CDA. The CDA schema data element is recordTarget/patientRole/id. This is a technical identifier that is used for system purposes, such as matching ENTITLEMENT details back to the Subject of Care (patient). This identifier **SHALL** be a UUID.
- 3) The next row in the mapping table (Subject of Care > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON) is defined in the SCS but is not mapped directly to the CDA because it is already encompassed implicitly by CDA in recordTarget/patientRole/patient.

Moving to the next row in the table (Subject of Care > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > **PERSON NAME**) and concatenating the context and the mapping, we get:

4) /ClinicalDocument/recordTarget/patientRole/patient/<Person Name>

<PersonName> holds a link to the common pattern section where a new table lays out the mapping for the PERSON NAME common pattern.

Moving down the table to the context row 'CDA Header Data Elements', any data components after this row (until the occurrence of a new context row) map to the CDA body. Because there is no equivalent concept in CDA, an Australian Digital Health Agency CDA extension has been added in order to represent ENTITLEMENT. This extension is indicated by the presence of the 'ext:' prefix. ENTITLEMENT CDA elements SHALL be deemed CDA Header data elements for conformance assessment. For the data component 'ENTITLEMENT', adding together the context and the mapping using '/' gives the following paths for the CDA body level 3 data elements ([index] is dependent on context):

- 5) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/@typeCode="COVBY"
- 6) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement
- 7) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/@classCode="COV"
- 8) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/@moodCode="EVN"

9) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:participant/@typeCode="BEN"

10) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/@classCode="PAT"

11) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/ext:id

This id is also a technical identifier and **SHALL** hold the same value as the /ClinicalDocument/recordTarget/patientRole/id mentioned in comment 1.

The order of the SCS data components is not always the same as the order of the CDA elements. In addition, the CDA elements need to be in the order specified in the Australian Digital Health Agency CDA Schema.

The id element is not specified in the SCS and SHOULD be filled with a UUID. This element may be used to reference an act from other places in the CDA document.

The next row in the table (Subject of Care > PARTICIPANT > ENTITLEMENT > Entitlement Number) maps to the id element:

12) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:id

The next row in the table (Subject of Care > PARTICIPANT > ENTITLEMENT > Entitlement Type) maps to the code element:

13) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:code

The next row in the table (Subject of Care > PARTICIPANT > ENTITLEMENT > Entitlement Validity Duration) maps to the effectiveTime element:

14) /ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:effectiveTime

The next row in the table (Subject of Care > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > EMPLOYMENT DETAIL) maps to the ext:asEmployment element:

Where the SCS explicitly prohibits a data component, it is shown in the CDA mapping table with a cardinality of [0..0].

This is interpreted as an absolute prohibition against inclusion.

15) /ClinicalDocument/recordTarget/patientRole/patient/ext:asEmployment

See comments in the example below.

Example 2.1. Mapping Interpretation (non-normative)

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only.

Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and

may not be indicative of the expected values in a clinical document.

While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema,

the specification or schema will take precedence. -->

<ClinicalDocument

...

>

xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" ...

<telecom value="tel:0499999999" use="H"/> <!-- 3 --> <patient> <!-- 4 Corresponds to: '//recordTarget/patientRole/patient/<Person Name>' in the mapping --> <name use="L"> <prefix>Ms</prefix> <given>Sally</given> <family>Grant</family> </name>

```
</patient>
</patientRole>
</recordTarget>
<!-- End Subject of Care - Header Part -->
```

```
<!-- Begin CDA Body -->
<component>
<structuredBody>
```

...

...

....

<!-- Begin section --> <component> <section>

'//ext:coverage2/ext:entitlement/@moodCode="EVN"'

```
in the mapping -->
         <ext:Entitlement classCode="COV" moodCode="EVN">
           <!-- 12 Corresponds to:
                 '//ext:coverage2/ext:entitlement/ext:id'
              in the mapping -->
           <ext:id root="1.2.36.174030967.0.5" extension="1234567892"</pre>
              assigningAuthorityName="Medicare Identifier"/>
           <!-- 13 Corresponds to:
              '//ext:coverage2/ext:entitlement/ext:code'
           in the mapping -->
           <ext:code code="1" codeSystem="1.2.36.1.2001.1001.101.104.16047" codeSystemName="NCTIS Entitlement Type Values" displayName="Medicare Benefits" />
           <!-- 14 Corresponds to:
                 '//ext:coverage2/ext:entitlement/ext:effectiveTime'
              in the mapping -->
           <ext:effectiveTime>
              <low value="200701010101+1000"/>
              <high value="202701010101+1000"/>
           </ext:effectiveTime>
           <!-- 9 Corresponds to:
                 '//ext:coverage2/ext:entitlement/ext:participant/@typeCode="BEN"'
              in the mapping -->
           <ext:participant typeCode="BEN">
              <!-- 10 Corresponds to:
                    '//ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/@classCode="PAT"'
                 in the mapping -->
              <ext:participantRole classCode="PAT">
                 <!-- 11 Corresponds to:
                       '//ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/ext:id'
                    in the mapping -->
                 <!-- Same as recordTarget/patientRole/id -->
                 <ext:id root="989da303-3bbd-44b9-bc0f-ab98dd0b6dde"/>
              </ext:participantRole>
           </ext:participant>
        </ext:Entitlement>
     </ext:coverage2>
     <!-- End SUBJECT OF CARE ENTITLEMENT -->
    ...
  </section>
</component>
```

<!-- End section -->

</structuredBody> </component> <!-- End CDA Body --> </ClinicalDocument>

2.3 CDA Extensions

The SCS is based on Australian requirements, either as expressed in existing Australian Standards, or based on extensive consultation with major stakeholders. Not all of these requirements are supported by HL7 Clinical Document Architecture Release 2 (CDA).

CDA provides a mechanism for handling this. Implementation guides are allowed to define extensions, provided some key rules are followed:

- Extensions have a namespace other than the standard HL7v3 namespace.
- The extension cannot alter the intent of the standard CDA document. For example, an extension cannot be used to indicate that an observation does not apply where the CDA document requires it.
- HL7 encourages users to get their requirements formalised in a subsequent version of the standard so as to maximise the use of shared semantics.

Accordingly, a number of extensions to CDA have been defined in this implementation guide. To maintain consistency, the same development paradigm has been used as CDA, and all the extensions have been submitted to HL7 for inclusion into a future release of CDA (Release 3 currently under development).

The extensions in Version 3.0 are incorporated in the namespace http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0 as shown in the CDA example output throughout this document. Future versions of CDA extensions will be versioned as per the following example:

http://ns.electronichealth.net.au/Ci/Cda/Extensions/4.0

2.4 W3C XML Schema

This document refers to an accompanying CDA W3C XML Schema (referred to in this document as the Australian Digital Health Agency CDA Schema). This schema differs from the base HL7 CDA W3C XML Schema (referred to in this document as the HL7 CDA Schema) as mentioned below:

• Australian Digital Health Agency CDA extensions have been added to the Australian Digital Health Agency CDA Schema.

CDA documents which include extensions will fail to validate against the HL7 CDA Schema – this is a known limitation.

A Clinical Document document that conforms to this specification **SHALL** validate against the Australian Digital Health Agency CDA Schema that accompanies this specification, and **SHALL** validate against the HL7 CDA Schema once the extensions have been removed. Note that merely passing schema validation does not ensure conformance. For more information, refer to Conformance.

2.5 Schematron

Many of the rules this document makes about CDA documents cannot be captured in the W3C XML Schema language (XSD) as XSD does not provide a mechanism to state that the value or presence of one attribute is dependent on the values or presence of other attributes (co-occurrence constraints).

Schematron is a rule-based validation language for making assertions about the presence or absence of patterns in XML trees. The rules defined by this document may be captured as Schematron rules. As of this release, the matching Schematron assertions have not yet been developed. We are considering the distribution of these rules in association with future releases of this implementation guide.

2.6 Implementation Strategies

There are many platform-specific implementation options for readers implementing a CDA document according to this guide. Examples of these implementation options include:

- Read or write CDA documents directly using a Document Object Model (DOM) or 3rd Generation Language (3GL) code (or both).
- Transform an existing XML format to and from a CDA document.
- Use a toolkit to generate a set of classes from HL7 CDA Schema or the Australian Digital Health Agency CDA Schema provided with this implementation guide, to read or write documents.
- Use existing libraries, possibly open source, that can read and write CDA documents.

The best approach for any given implementation is strongly dictated by existing architecture, technology and legacy constraints of the implementation project or existing system.

3 Clinical Document Data Hierarchy

The data hierarchy below provides a logical representation of the data structure of the CLOCD SCS data components.

The data hierarchy is a logical representation of the data components of a Clinical Document, and is not intended to represent how the data contents are represented in a CDA document.



Note

Items below whose icon is grey are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

	CLINICAL	CLINICAL DOCUMENT						
CONTEXT								
	8	SUBJECT	SUBJECT OF CARE					
		DOCUME	DOCUMENT AUTHOR					
	~	ENCOUN	TER		01			
		DateTime Health Event Started						
		DateTime Health Event Ended						
			ARE FACILITY	01				
	46 X X	Document Instance Identifier						
	46 X A	Document Type						
	Τ	Document Title						
	8	PARTICIPANT						
CONTENT	r '	· ·						
	~~	SECTION			11			
		encapsulated data			0*			
			001011001	Encapsulated Data Item	11			

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4 Administrative Observations

The CLOCD SCS contains a number of data elements that are logically part of the SCS context, but for which there are no equivalent data elements in the CDA header. These data elements are considered to be "Administrative Observations" about the encounter, the patient or some other participant. Administrative Observations is a CDA section that is created to hold these data components in preference to creating extensions for them.

CDA R-MIM Representation

Figure 4.1 Administrative Observations shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.

The Administrative Observations section is composed of a Section class related to its context ClinicalDocument.structuredBody through a component relationship.

	component typeCode*: <= COMP contextConductionInd*: BL [11] "true"	1* se	ection
cla me id: co title	ection assCode*: <= DOCSECT bodCode*: <= EVN SET <ii>[01] de: CE CWE [01] < D:DocumentSection Ty e: ST [01] t*: ED [01]</ii>	pe	

Figure 4.1. Administrative Observations
At most one instance of Administrative Observation section **SHOULD** be present in a CDA document. The cardinality of this section comes from its linking context data elements (e.g. CDA context data element(s) mapped to Administrative Observation Section). If any of the linking context data elements are mandatory, then this section **SHALL** be marked as a mandatory section.

This section **SHALL NOT** be populated if there are no entries or text to go in it.

This section **SHALL** contain a code if provided.

All data elements (with the exception of narrative text) within this section SHALL be deemed as CDA Header data elements for conformance assessment.

The <text> data element is **OPTIONAL** and **SHALL** be treated as a Level 2 CDA data element.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Body Level 2 Data Elements			Context: /ClinicalDocument/component/structuredBody/		
n/a	n/a	Cardinality comes from linking context data ele- ments	component[admin_obs]/section		
		01	component[admin_obs]/section/ id		See <id> for available attributes.</id>
		11	component[admin_obs]/section/ code		See <code> for avail- able attributes.</code>
			component[admin_obs]/section/code/@code="102.16080"		
			component[admin_obs]/section/code/@codeSystem="1.2.36.1.2001.1001.101"		
			component[admin_obs]/section/code/ @codeSystemName	The value SHOULD be "NCTIS Data Components".	Optional CDA element.
				See CodeSystem OIDs.	
			component[admin_obs]/section/code/@displayName="Administrative Observations"		
			component[admin_obs]/section/title="Administrative Observations"		
		01	component[admin_obs]/section/ text		See Appendix A, CDA Narratives.

Example 4.1. Administrative Observations XML Fragment

```
<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only.
Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid.
While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and
may not be indicative of the expected values in a clinical document.
While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema,
the specification or schema will take precedence. -->
<ClinicalDocument
  xmlns="urn:hl7-org:v3"
   xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
   ....
   >
   ....
   <!-- Begin CDA Body -->
   <component>
      <structuredBody>
         ....
         <!-- Begin Administrative Observations -->
         <component typeCode="COMP">
          <section classCode="DOCSECT" moodCode="EVN">
              <id root="8c173d55-e8d7-43c1-b06b-e427b39342d4"/>
              <code code="102.16080"
                codeSystem="1.2.36.1.2001.1001.101"
                 codeSystemName="NCTIS Data Components"
                 displayName="Administrative Observations"/>
              <title>Administrative Observations</title>
              <!-- narrative block -->
              <text/>
              ...
          </section>
         </component>
         <!-- End Administrative Observations -->
         ....
      </structuredBody>
   </component>
   <!-- End CDA Body -->
</ClinicalDocument>
```

5 CDA Header

This chapter contains CDA-specific header elements (both **REQUIRED** and **OPTIONAL**) that are not specified in the CLOCD SCS specification. The CDA Schema Data Element describes each element. All the definitions in this chapter are sourced from "HL7 Clinical Document Architecture, Release 2" [HL7CDAR2].

5.1 ClinicalDocument

Identification

Name	ClinicalDocument
Definition	The ClinicalDocument class is the entry point into the CDA R-MIM, and corresponds to the <clinicaldocument> XML element that is the root element of a CDA document.</clinicaldocument>

Relationships

Children

Name Occurrence	
LegalAuthenticator	01
InformationRecipient	0*
Custodian	11

CDA R-MIM Representation

ClinicalDocument

classCode*: <= DOCCLIN moodCode*: CS CNE [1..1] < D:EVN id*: II [1..1] code*: CE CWE [1..1] < D:DocumentType title: ST [0..1] effectiveTime*: TS [1..1] confidentialityCode*: CE CWE [1..1] < D:x_BasicConfidentialityKind languageCode: CS CNE [0..1] < D:HumanLanguage setId: II [0..1] versionNumber: INT [0..1] completionCode: CE CWE [0..1] < D:DocumentCompletion

Note: completionCode is added as an Australian Digital Health Agency extension to CDA.

Figure 5.1. ClinicalDocument

CDA Schema Data Element	Definition	Card	Vocab	Comments	
CDA Header Data Elements	Context: /				
ClinicalDocument	The ClinicalDocument class is the entry point into the CDA R-MIM, and corresponds to the <clinicaldocument> XML element that is the root element of a CDA document.</clinicaldocument>	11			
ClinicalDocument/typeld	A technology-neutral explicit reference to the CDA Release 2 specification.	11			
ClinicalDocument/typeId/@extension="POCD_HD000040"		11		The unique identifier for the CDA Release 2 Hierarch- ical Description.	
ClinicalDocument/typeId/@root="2.16.840.1.113883.1.3"		11		The OID for HL7 Registered models.	
ClinicalDocument/templateId	A templateld signals the imposition of a set of template-defined constraints.	1*		One or more template identifiers that indicate con- straints on the CDA document that this document conforms to. Additional template identifiers may be required by other specifications, such as the CDA Rendering Specification. Systems are not required to recognise any other template identifiers than those below in order to un- derstand the document as a [type] but these identifiers may influence how the document must be handled. One instance of templateld SHALL be instantiated to represent the implementation guide. One instance of templateld SHALL be instantiated to represent the clinical document pattern.	
ClinicalDocument/templateld/@root="1.2.36.1.2001.1001.100.1002.218"		11		The healthcare context-specific name of the published Core Level One Clinical Document CDA Implementation Guide.	
ClinicalDocument/templateId/@extension="1.1"		11		The identifier of the version that was used to create the document instance.	

Australian Digital Health Agency

CDA Schema Data Element	Definition	Card	Vocab	Comments
ClinicalDocument/templateId/@root	11	The	Represents the specific clinical docu-	
ClinicalDocument/templateld/@extension		value SHALL be an imple- menta- tion-spe- cific value as specified in the ap- plicable clinical docu- ment conform- ance pro- file.	ment pattern, e.g. Birth Details, Medi- cines List.	11
ClinicalDocument/id	Represents the unique instance identifier of a clinical document.	11		See <id> for available attributes. id/@nullFlavor SHALL NOT be present.</id>
ClinicalDocument/ code	The code specifying the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note).	11	The value SHALL be an implementa- tion-specific value as specified in the applicable clinical document conform- ance profile.	code/@nullFlavor SHALL NOT be present.
ClinicalDocument/title	Represents the title of the document.	01		
ClinicalDocument/ effectiveTime	Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original doc- ument is created.	11		See common pattern: time.
ClinicalDocument/confidentialityCode/@nullFlavor="NA"	Codes that identify how sensitive a piece of information is and/or that indicate how the information may be made available or disclosed.	11		
ClinicalDocument/languageCode	Specifies the human language of character data (whether they be in contents or attribute values).	01	[RFC3066] – Tags for the Identification of Languages	<language code=""> – <dialect> The <language code=""> SHALL be "en". The <dialect> SHOULD be "AU".</dialect></language></dialect></language>
ClinicalDocument/setId	Represents an identifier that is common across all document revisions.	01		
ClinicalDocument/versionNumber/@value	An integer value used to version successive replacement documents.	01		
ClinicalDocument/ext:completionCode	The lifecycle status of a document.	11	NCTIS: Admin Codes - Document Status	See Australian Digital Health Agency CDA extension: ClinicalDocument.completionCode.

Example 5.1. ClinicalDocument XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document.

While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. -->

<ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"> <!-- Begin CDA Header --> <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/> <!-- templateId to assert use of this implementation guide --> <templateId root="1.2.36.1.2001.1001.100.1002.218" extension="1.1"/> <!-- templateId to assert the clinical document pattern as specified in the clinical document conformance profile --> <templateId root="root" extension="extension"/> <id root="5f38ba3f-8711-42ca-810f-97f5302add9d"/> <!-- Document type as specified in the clinical document conformance profile --> <code code="code" codeSystem="codeSystem" codeSystemName="codeSystemName" displayName="name"/> <title>Document</title> <effectiveTime value="201211061639+1100"/> <confidentialityCode nullFlavor="NA"/> <languageCode code="en-AU"/> <setId root="fc7fecc0-8255-11e3-baa7-0800200c9a66"/> <versionNumber value="1"/> <ext:completionCode code="F" codeSystem="1.2.36.1.2001.1001.101.104.20104"</pre> codeSystemName="NCTIS Document Status Values" displayName="Final"/>

<!-- End CDA Header -->

</ClinicalDocument>

5.1.1 LegalAuthenticator

Identification

Name	LegalAuthenticator
Definition	Represents a participant who has legally authenticated the document.

Relationships

Parent

Name	Occurrences (child within parent)			
ClinicalDocument	01			

CDA R-MIM Representation

Figure 5.2 LegalAuthenticator shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The LegalAuthenticator maps to the CDA Header element legalAuthenticator. The legalAuthenticator participation class represents who has legally authenticated the document. The role is AssignedEntity and is represented by the Person, and optionally Organization, entities.



Figure 5.2. LegalAuthenticator



Note

NS = In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the <u>HL7 code set registration procedure</u>¹ with an appropriate object identifier (OID), and **SHALL** be publicly available.

When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

CDA Schema Data Element	Definition	Card	Vocab	Comments
Context: /ClinicalDocument/				
legalAuthenticator	Represents a participant who has legally authenticated the document.	01		
legalAuthenticator/time/@value	Indicates the time of authentication.	11		
legalAuthenticator/signatureCode/@code="S"	Indicates that the signature has been affixed and is on file.	11		
legalAuthenticator/assignedEntity	A legalAuthenticator is a person in the role of an assigned entity (AssignedEn- tity class). An assigned entity is a person assigned to the role by the scoping organization. The entity playing the role is a person (Person class). The entity scoping the role is an organization (Organization class).	11		
legalAuthenticator/assignedEntity/code	The specific kind of role.	01	NS	See <code> for available attributes.</code>
legalAuthenticator/assignedEntity/id	A unique identifier for the player entity in this role.	11		See <id> for available attributes.</id>
legalAuthenticator/assignedEntity/assignedPerson	The entity playing the role (assignedEntity) is a person.	11		
legalAuthenticator/assignedEntity/assignedPerson/ <entity identifier=""></entity>	The entity identifier of the person.	0*		See common pattern: Entity Identifier.
legalAuthenticator/assignedEntity/ <address></address>	A postal address for the entity (assignedPerson) while in the role (as- signedEntity).	0*		See common pattern: Address.
legalAuthenticator/assignedEntity/ <electronic communication="" detail=""></electronic>	A telecommunication address for the entity (assignedPerson) while in the role (assignedEntity).	0*		See common pattern: Electronic Communication Detail.
legalAuthenticator/assignedEntity/assignedPerson/ <person name=""></person>	A non-unique textual identifier or moniker for the entity (assignedPerson).	0*		See common pattern: Person Name.
legalAuthenticator/assignedEntity/representedOrganization	The entity scoping the role (assignedEntity).	01		
legalAuthenticator/assignedEntity/representedOrganization/ <entity identifier=""></entity>	A unique identifier for the scoping entity (represented organization) in this role (assignedEntity).	0*		See common pattern: Entity Identifier.
legalAuthenticator/assignedEntity/representedOrganization/name	A non-unique textual identifier or moniker for the entity (representedOrgan- ization).	0*		

¹ http://www.hl7.org/oid/index.cfm?ref=footer

Example 5.2. LegalAuthenticator XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> <!-- Begin legalAuthenticator --> <legalAuthenticator> <time value="200910201235+1000"/> <signatureCode code="S"/> <assignedEntity> <id root="b830b9a6-4ea7-4a1a-92eb-ddf18b82a291"/> <code code="253111" codeSystem="2.16.840.1.113883.13.62" codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1" displayName="General Medical Practitioner"/> <!-- Address --> <addr use="WP"> <streetAddressLine>1 Clinician Street</streetAddressLine> <city>Healthville</city> <state>OLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> </addr> <!-- Electronic Communication Detail --> <telecom use="WP" value="tel:0712341234"/> <assignedPerson> <!-- Person Name --> <name> <prefix>Dr.</prefix> <given>Good</given> <family>Doctor</family> </name> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT"> <ext:id assigningAuthorityName="HPI-I" root="1.2.36.1.2001.1003.0.8003611566682112"/> <ext:assigningGeographicArea classCode="PLC"> <ext:name>National Identifier</ext:name> </ext:assigningGeographicArea> </ext:asEntityIdentifier> </assignedPerson> <representedOrganization> <name>Good Health Clinic</name> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT">

<ext:id assigningAuthorityName="HPI-0"
root="1.2.36.1.2001.1003.0.8003621566684455"/>
<ext:assigningGeographicArea dlassCode="PLC">
<ext:name>National Identifier</ext:name>
</ext:assigningGeographicArea>
</ext:asEntityIdentifier>
</representedOrganization>

</assignedEntity> </legalAuthenticator> <!-- End legalAuthenticator --> ...

<!-- End CDA Header -->

</ClinicalDocument>

5.1.2 InformationRecipient

Identification

Name	Information Recipient
Definition	Represents a recipient who should receive a copy of the document.

Relationships

Parent

Name	Occurrences (child within parent)			
ClinicalDocument	0*			

CDA R-MIM Representation

Figure 5.3 InformationRecipient shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The INFORMATION RECIPIENT maps to the CDA Header element informationRecipient. The informationRecipient participation class represents who should receive a copy of the document. The role is IntendedRecipient and is represented by the Person and/or Organization entities.



Figure 5.3. InformationRecipient

CDA Schema Data Element	Definition	Card	Vocab	Comments
Context: /ClinicalDocument/			•	
informationRecipient	Represents a recipient who should receive a copy of the document.	0*		
informationRecipient/@typeCode	Type of recipient	11	PRCP (primary recipient) [default]: Recipient to whom the document is primarily directed.	
			TRC (secondary recipient): A secondary recipient to whom the document is directed.	
informationRecipient/ intendedRecipient	An informationRecipient is a person in the role of an assigned entity (AssignedEntity class). An assigned entity is a person assigned to the role by the scoping organization. The entity playing the role is a person (Person class). The entity scoping the role is an organization (Organization class).	11		
informationRecipient/intendedRecipient/@classCode	The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective.	11		
informationRecipient/intendedRecipient/informationRecipient	The entity playing the role (intendedRecipient) is a person.	01		
informationRecipient/intendedRecipient/id	A unique identifier for the player entity in this role.	0*		See <id> for available attributes.</id>
informationRecipient/intendedRecipient/informationRecipient/ <entity identifier=""></entity>	The entity identifier of the person.	0*		See common pattern: Entity Identifier.
informationRecipient/intendedRecipient/ <address></address>	A postal address for the entity (informationRecipient) while in the role (intendedRecipient).	0*		See common pattern: Address.
informationRecipient/intendedRecipient/ <electronic communication="" detail=""></electronic>	A telecommunication address for the entity (informationRecipient) while in the role (intendedRecipient).	0*		See common pattern: Electronic Communication Detail.
informationRecipient/intendedRecipient/informationRecipient/ <person name=""></person>	A non-unique textual identifier or moniker for the entity (informationRecipient).	0*		See common pattern: Person Name.
informationRecipient/intendedRecipient/receivedOrganization	The entity scoping the role (intendedRecipient).	01		
informationRecipient/intendedRecipient/receivedOrganization/ <entity identifier=""></entity>	A unique identifier for the scoping entity (represented organization) in this role (intendedRecipient).	0*		See common pattern: Entity Identifier.
informationRecipient/intendedRecipient/receivedOrganization/name	A non-unique textual identifier or moniker for the entity (representedOrganization).	0*		

Example 5.3. InformationRecipient XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> ... <!-- Begin informationRecipient :: example as an organisation --> <informationRecipient typeCode="PRCP"> <intendedRecipient classCode="ASSIGNED"> <!-- id is used for system purposes such as matching --> <id root="142e4bc3-2b31-4dc8-90ac-32c3fbeb6ae0"/> < --- Address --> <addr use="WP"> <streetAddressLine>55 GP Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> <country>Australia</country> </addr> <!-- Electronic Communication Detail --> <telecom use="WP" value="tel:07888888888"/> <receivedOrganization> <name>Acme Hospital Group</name> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT"> <ext:id assigningAuthorityName="HPI-0" root="1.2.36.1.2001.1003.0.8003621566684455"/> <ext:assigningGeographicArea classCode="PLC"> <ext:name>National Identifier</ext:name> </ext:assigningGeographicArea> </ext:asEntityIdentifier> </receivedOrganization> </intendedRecipient> </informationRecipient> <!-- End informationRecipient --> <!-- End CDA Header --> </ClinicalDocument>

5.1.3 Custodian

Identification

Name	Custodian
Definition	The organization that is in charge of maintaining the document. The custodian is the steward that is entrusted with the care of the document. Every CDA document has exactly one custodian.

Relationships

Parent

Name	Occurrences (child within parent)
ClinicalDocument	11

CDA R-MIM Representation

Figure 5.4 Custodian shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The Custodian maps to the CDA Header element custodian. The custodian participation class represents the organisation that is in charge of maintaining the document. The role is Assigned-Custodian and is represented by the CustodianOrganization entity.



Figure 5.4. Custodian

CDA Schema Data Element	Definition	Card	Vocab	Comments				
Context: /ClinicalDocument/								
custodian	Represents the organization that is in charge of maintaining the document. The custodian is the steward that is entrusted with the care of the docu- ment. Every CDA document has exactly one custodian.	11						
custodian/assignedCustodian	A custodian is a scoping organization in the role of an assigned custodian.	11						
custodian/assignedCustodian/representedCustodianOrganization	The steward organization (CustodianOrganization class) is an entity scoping the role of AssignedCustodian.	11						
custodian/assignedCustodian/representedCustodianOrganization/id	A unique identifier for the scoping entity (representedCustodianOrganiza- tion) in this role.	1*		See <id> for available attributes.</id>				
custodian/assignedCustodian/representedCustodianOrganization/ <entity identifier=""></entity>	The entity identifier of the custodian organization.	0*		See common pattern: Entity Identifier.				
custodian/assignedCustodian/representedCustodianOrganization/name	The name of the steward organization.	01						
custodian/assignedCustodian/representedCustodianOrganization/ <electronic communication="" detail=""></electronic>	The telecom of the steward organization.	01		See common pattern: Electronic Communication Detail.				
custodian/assignedCustodian/representedCustodianOrganization/ <address></address>	The address of the steward organization.	01		See common pattern: Address.				

Example 5.4. Custodian XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> ... <!-- Begin Custodian --> <custodian> <assignedCustodian> <representedCustodianOrganization> <!-- id is used for system purposes such as matching --> <id root="c9c04faf-d7a8-4802-8c69-980b0ce4d798"/> <name>Acme Hospital Group</name> <!-- Electronic Communication Detail --> <telecom use="WP" value="tel:0712341234"/> <!-- Address --> <addr use="WP"> <streetAddressLine>1 Clinician Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> </addr> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT"> <ext:id assigningAuthorityName="HPI-0"</pre> root="1.2.36.1.2001.1003.0.8003621566684455"/> <ext:assigningGeographicArea classCode="PLC"> <ext:name>National Identifier</ext:name> </ext:assigningGeographicArea> </ext:asEntityIdentifier> </representedCustodianOrganization> </assignedCustodian> </custodian> <!-- End Custodian --> <!-- End CDA Header --> </ClinicalDocument>

6 Context Data Specification - CDA Mapping

6.1 CLINICAL DOCUMENT

Identification

Name	CLINICAL DOCUMENT
Metadata Type	Structured Document
Identifier	SD-16888

Relationships

Children

Data Type	Name	Occurrence
8	SUBJECT OF CARE	11
<u>گ</u>	DOCUMENT AUTHOR	11
**	ENCOUNTER	01
8	PARTICIPANT	0*

CDA R-MIM Representation

Figure 6.1 CLINICAL DOCUMENT Context shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.



Figure 6.1. CLINICAL DOCUMENT Context

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Header Data Elements			Context: /		
CLINICAL DOCUMENT	Clinical document containing structured context information, such as author, and containing clinical content as encapsulated data or as section narrative.	11	ClinicalDocument		
CLINICAL DOCUMENT > SUBJECT OF CARE	Person who receives care services.	11	See: SUBJECT OF CARE		
CLINICAL DOCUMENT > DOCUMENT AUTHOR	Composer of the document.	11	See: DOCUMENT AUTHOR		
CLINICAL DOCUMENT > ENCOUNTER	Encounter between a subject of care and a health system.	01	See: ENCOUNTER		
CLINICAL DOCUMENT > Document Instance Identifier	Globally unique identifier for each instance of a Clinical Document document.	11	ClinicalDocument/ id		See <id> for available attrib- utes. id/@nullFlavor SHALL NOT be present.</id>
CLINICAL DOCUMENT > Document Type	Type of document.	11	ClinicalDocument/ code	The value SHALL be an imple- mentation-specific value as specified in the applicable clinical document conform- ance profile.	See <code> for available at- tributes. code/@nullFlavor SHALL NOT be present.</code>
CLINICAL DOCUMENT > Document Title	Title of the document.	01	ClinicalDocument/title		
CLINICAL DOCUMENT > PARTICIPANT	Party involved in, or associated with, the provision of services to the subject of care.	0*	See: PARTICIPANT		

For CDA Header mappings and model which are not explicitly included in the SCS, see ClinicalDocument.

Example 6.1. Clinical Document Context XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="urn:hl7-org:v3" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"> <!-- Begin CDA Header --> ... <!-- Document Instance Identifier --> <id root="8f281000-498d-11e2-bcfd-0800200c9a66"/> <!-- Document Type --> <code code="code" codeSystem="code system" codeSystemName="code system name" displayName="name" /> <!-- Document Title --> <title>Referral</title> ... <!-- Begin SUBJECT OF CARE --> <recordTarget> </recordTarget> <!-- End SUBJECT OF CARE --> <!-- Begin DOCUMENT AUTHOR --> <author> </author> <!-- End DOCUMENT AUTHOR --> <!-- Begin PARTICIPANT --> <participant> </participant> <!-- End PARTICIPANT --> <!-- Begin ENCOUNTER --> <componentOf> <encompassingEncounter> </encompassingEncounter> </componentOf> <!-- End ENCOUNTER --> <!-- End CDA Header --> </ClinicalDocument>

6.1.1 SUBJECT OF CARE

Identification

Name	SUBJECT OF CARE
Metadata Type	Data Group
Identifier	DG-10296

Relationships

Parent

Data Type	Name	Occurrences (child within parent)
	CLINICAL DOCUMENT	11

CDA R-MIM Representation

Figure 6.2 SUBJECT OF CARE - Header Data Elements and Figure 6.3 SUBJECT OF CARE - Body Data Elements show a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to both CDA Header and CDA Body elements.

The SUBJECT OF CARE data group maps mostly to CDA Header elements. The recordTarget participation class represents the medical record to which this document belongs. The recordTarget is associated with the Patient class by the PatientRole class. In order to represent the Date of Death of the Subject of Care, Patient.deceasedTime has been added as an Australian Digital Health Agency CDA extension.



Figure 6.2. SUBJECT OF CARE - Header Data Elements

1

Note

Several data elements contained in the SUBJECT OF CARE data group could not be mapped to CDA Header elements. These data elements have been mapped to Observations in the Administrative Observations section (see 4 Administrative Observations).



Figure 6.3. SUBJECT OF CARE - Body Data Elements

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments		
CDA Header Data Elements			Context: /ClinicalDocument/				
SUBJECT OF CARE	Person who receives care services.	11	recordTarget/patientRole				
n/a	n/a	11	recordTarget/patientRole/id		Required CDA element.		
					See <id> for available attributes.</id>		
SUBJECT OF CARE > Participation Period	The time interval during which the participation in the healthcare event occurred.	00	n/a		This logical data com- ponent has no map- ping to CDA.		
SUBJECT OF CARE > LOCATION OF PARTI- CIPATION	Specifies the geographic site (building, room, etc) where the participation of a healthcare event occurs.	00	See Known Issues.		LOCATION OF PARTICIP- ATION is not currently mapped.		
SUBJECT OF CARE > Participation Type	The categorisation of the nature of the participant's in- volvement in the healthcare event described by this par- ticipation.	11	n/a	Participation Type SHALL have an imple- mentation-specific value equivalent to "Subject of Care".	Not mapped directly, encompassed implicitly in recordTarget/ typeCode = "RCT" (op- tional, fixed value).		
SUBJECT OF CARE > Role	The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective.	11	n/a	Role SHALL have an implementation-specific value equivalent to "Patient".	Not mapped directly, encompassed implicitly in recordTarget/patien- tRole/classCode = "PAT".		
SUBJECT OF CARE > PARTICIPANT	Details pertinent to the identification of an individual or organisation or device that has participated in a health- care event/encounter/clinical interaction.	11	recordTarget/patientRole/ patient				
SUBJECT OF CARE > PARTICIPANT > Entity Identifier	A number or code issued for the purpose of identifying a participant within a healthcare context.	1*	recordTarget/patientRole/patient/ <entity identifier=""></entity>		See common pattern: Entity Identifier. The Subject of Care's Medicare card number is recorded in ENTITLE- MENT, not Entity Iden- tifier.		
SUBJECT OF CARE > PARTICIPANT > AD- DRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	0*	recordTarget/patientRole/ <address></address>		See common pattern: Address.		
SUBJECT OF CARE > PARTICIPANT > ELEC- TRONIC COMMUNICATION DETAIL	The electronic communication details of entities.	0*	recordTarget/patientRole/ <electronic communication="" detail=""></electronic>		See common pattern: Electronic Communica- tion Detail.		

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
SUBJECT OF CARE > PARTICIPANT > PER- SON OR ORGANISATION OR DEVICE	Represents a choice to be made at run-time between PERSON, ORGANISATION or DEVICE.	11	n/a	PERSON OR ORGANISA- TION OR DEVICE SHALL be instantiated as a PERSON.	This logical data com- ponent has no map- ping to CDA. The cardinality of this
					component propagates to its children.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON	An individual who is in the role of healthcare provider, who uses or is a potential user of a healthcare service, or is in some way related to, or a representative of, a subject of care (patient).	11	n/a		Not mapped directly, encompassed implicitly in recordTarget/ patien- tRole/ patient.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > PERSON NAME	The appellation by which an individual may be identified separately from any other within a social context.	1*	recordTarget/patientRole/patient/ <person name=""></person>		See common pattern: Person Name.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > Relationship to Subject of Care	The relationship of a participant to a subject of care (pa- tient).	00	n/a		This logical data com- ponent has no map- ping to CDA.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > EMPLOYMENT DETAIL	A person's occupation and employer.	00	recordTarget/patientRole/patient/ ext:asEmployment		
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA	Additional characteristics of a person that may be useful for identification or other clinical purposes.	11	n/a		This logical data com- ponent has no map- ping to CDA.
					The cardinality of this component propagates to its children.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > Sex	The biological distinction between male and female. Where there is inconsistency between anatomical and chromosomal characteristics, sex is based on anatomical characteristics.	11	recordTarget/patientRole/patient/administrativeGenderCode	AS 5017-2006 Health Care Client Identifier Sex	administrativeGender- Code/@nullFlavor SHALL NOT be present.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF BIRTH DETAIL	Details of the accuracy, origin and value of a person's date of birth.	11	n/a		This logical data com- ponent has no map- ping to CDA.
					The cardinality of this component propagates to its children.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF BIRTH DETAIL > Date of Birth	The date of birth of the person.	11	recordTarget/patientRole/patient/ birthTime		See <time> for avail- able attributes.</time>

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Body Level 3 Data Elements			Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/section/ (See 4 Administrativ	e Observations)	
	Indicates whether or not a person's date of birth has been	01	entry[calc_age]		
OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF BIRTH	derived from the value in the Age data element.		entry[calc_age]/observation		
DETAIL > Date of Birth is Calculated From Age			entry[calc_age]/observation/@classCode="OBS"		
75C			entry[calc_age]/observation/@moodCode="EVN"		
			entry[calc_age]/observation/code		See <code> for avail- able attributes.</code>
			entry[calc_age]/observation/code/@code="103.16233"		
			entry[calc_age]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"		
			entry[calc_age]/observation/code/@codeSystemName	The value SHOULD be "NCTIS Data Compon- ents".	Optional CDA element.
				See CodeSystem OIDs.	
			entry[calc_age]/observation/code/@displayName="Date of Birth is Calculated From Age"		
		entry[calc_age]/observation/id		See <id> for available attributes.</id>	
	entry[calc_age]/observation/ value:BL		If the date of birth has been calculated from the age this is true, otherwise it is false.		

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
SUBJECT OF CARE > PARTICIPANT > PERSON	The level of certainty or estimation of a person's date of	01	entry[dob_acc]		
OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF BIRTH	birth.		entry[dob_acc]/observation		
DETAIL > DATE OF BIRTH ACCURACY INDIC- ATOR			entry[dob_acc]/observation/@classCode="OBS"		
			entry[dob_acc]/observation/@moodCode="EVN"		
			entry[dob_acc]/observation/ code		
			entry[dob_acc]/observation/code/@code="102.16234"		
			entry[dob_acc]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"		
			entry[dob_acc]/observation/code/ @codeSystemName	The value SHOULD be "NCTIS Data Compon- ents". See CodeSystem OIDs.	Optional CDA element.
			entry[dob_acc]/observation/code/@displayName="Date of Birth Accuracy Indicator"	,	
		entry[dob_acc]/observation/id		See <id> for available attributes.</id>	
			entry[dob_acc]/observation/value:CS	AS 5017-2006 Health Care Client Identifier Date Accuracy Indicat- or	
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF BIRTH DETAIL > DATE OF BIRTH ACCURACY INDIC- ATOR > Date of Birth Day Accuracy Indicat- or	The accuracy of the day component of a person's date of birth.	11	n/a		Encompassed in the mapping for DATE OF BIRTH ACCURACY IN- DICATOR (above).
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF BIRTH DETAIL > DATE OF BIRTH ACCURACY INDIC- ATOR > Date of Birth Month Accuracy In- dicator	The accuracy of the month component of a person's date of birth.	11	n/a		Encompassed in the mapping for DATE OF BIRTH ACCURACY IN- DICATOR (above).
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF BIRTH DETAIL > DATE OF BIRTH ACCURACY INDIC- ATOR > Date of Birth Year Accuracy Indic- ator	The accuracy of the year component of a person's date of birth.	11	n/a		Encompassed in the mapping for DATE OF BIRTH ACCURACY IN- DICATOR (above).

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > AGE DETAIL	Details of the accuracy and value of a person's age.	01	n/a		This logical data com- ponent has no map- ping to CDA.
					The cardinality of this component propagates to its children.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON	The age of a person/subject of care at the time.	11	entry[age]		
> DEMOGRAPHIC DATA > AGE DETAIL > Age			entry[age]/observation		
			entry[age]/observation/@classCode="OBS"		
		entry[age]/observation/@moodCode="EVN"			
			entry[age]/observation/code		
			entry[age]/observation/code/@code="103.20109"		
			entry[age]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"		
			entry[age]/observation/code/@codeSystemName	The value SHOULD be "NCTIS Data Compon- ents".	Optional CDA element.
				See CodeSystem OIDs.	
			entry[age]/observation/code/@displayName="Age"		
			entry[age]/observation/id		See <id> for available attributes.</id>
			entry[age]/observation/value:PQ		

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > AGE DETAIL > Age Accuracy Indicator	The accuracy of a person's age.	01	entry[age_acc]		
			entry[age_acc]/observation		
			entry[age_acc]/observation/@classCode="OBS"		
			entry[age_acc]/observation/@moodCode="EVN"		
			entry[age_acc]/observation/code		
			entry[age_acc]/observation/code/@code="103.16279"		
			entry[age_acc]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"		
			entry[age_acc]/observation/code/@codeSystemName	The value SHOULD be "NCTIS Data Compon- ents".	Optional CDA element.
				See CodeSystem OIDs.	
			entry[age_acc]/observation/code/@displayName="Age Accuracy Indicator"		
			entry[age_acc]/observation/id		See <id> for available attributes.</id>
			entry[age_acc]/observation/ value:BL		If the age is considered to be accurate, this is true, otherwise it is false.
SUBJECT OF CARE > PARTICIPANT > PERSON	An indicator of multiple birth, showing the total number of births resulting from a single pregnancy.	01	entry[brth_plr]		
OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > Birth Plurality			entry[brth_plr]/ observation		
			entry[brth_plr]/observation/@classCode="OBS"		
			entry[brth_plr]/observation/@moodCode="EVN"		
			entry[brth_plr]/observation/ code		
			entry[brth_plr]/observation/code/@code="103.16249"		
			entry[brth_plr]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"		
			entry[brth_plr]/observation/code/ @codeSystemName	The value SHOULD be "NCTIS Data Compon- ents".	Optional CDA element.
				See CodeSystem OIDs.	
			entry[brth_plr]/observation/code/@displayName="Birth Plurality"		
			entry[brth_plr]/observation/ id		See <id> for available attributes.</id>
			entry[brth_plr]/observation/value:INT		

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Header Data Elements			Context: /ClinicalDocument/		
SUBJECT OF CARE > PARTICIPANT > PERSON The sequential order of each baby of a multiple bir oR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > Birth Order gardless of live or still birth.	The sequential order of each baby of a multiple birth re-	01	recordTarget/patientRole/patient/ext:multipleBirthInd		See Australian Digital Health Agency CDA ex- tension: Multiple Birth.
	gardless of live or still birth.		recordTarget/patientRole/patient/ext:multipleBirthOrderNumber		
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF DEATH DETAIL	Details of the accuracy and value of a person's date of death.	01	n/a		This logical data com- ponent has no map- ping to CDA.
					The cardinality of this component propagates to its children.
	The date or date and time at which a person was estim- ated or certified to have died.	11	recordTarget/patientRole/patient/ext:deceasedInd		See Australian Digital Health Agency CDA ex- tension: Deceased Time.
			recordTarget/patientRole/patient/ext:deceasedTime		See <time> for avail- able attributes.</time>

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments	
CDA Body Level 3 Data Elements			Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/section/ (See 4 Administrative Observations)			
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF DEATH DETAIL > DATE OF DEATH ACCURACY IN- DICATOR	The level of certainty or estimation of a person's date of death.	01	entry[dod_acc]		This logical data com- ponent has no map- ping to CDA. The cardinality of this	
					component propagates to its children.	
			entry[dod_acc]/observation			
			entry[dod_acc]/observation/@classCode="OBS"			
			entry[dod_acc]/observation/@moodCode="EVN"			
			entry[dod_acc]/observation/ code			
			entry[dod_acc]/observation/code/@code="102.16252"			
			entry[dod_acc]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"			
			entry[dod_acc]/observation/code/ @codeSystemName	The value SHOULD be "NCTIS Data Compon- ents".	Optional CDA element.	
				See CodeSystem OIDs.		
			entry[dod_acc]/observation/code/@displayName="Date of Death Accuracy Indicator"			
			entry[dod_acc]/observation/ id		See <id> for available attributes.</id>	
			entry[dod_acc]/observation/ value:CS	AS 5017-2006 Health Care Client Identifier Date Accuracy Indicat- or		
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF DEATH DETAIL > DATE OF DEATH ACCURACY INDIC- ATOR > Date of Death Day Accuracy Indic- ator	The accuracy of the day component of a person's date of death.	11	n/a		Encompassed in the mapping for DATE OF DEATH ACCURACY IN- DICATOR (above).	
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF DEATH DETAIL > DATE OF DEATH ACCURACY INDIC- ATOR > Date of Death Month Accuracy Indicator	The accuracy of the month component of a person's date of death.	11	n/a		Encompassed in the mapping for DATE OF DEATH ACCURACY IN- DICATOR (above).	

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > DATE OF DEATH DETAIL > DATE OF DEATH ACCURACY INDIC- ATOR > Date of Death Year Accuracy Indic- ator	The accuracy of the year component of a person's date of death.	11	n/a		Encompassed in the mapping for DATE OF DEATH ACCURACY IN- DICATOR (above).
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > Source of Death Notification	The person, location, organisation or other originator of information relating to the date of death.	01	entry[src_notif]		
			entry[src_notif]/ observation		
			entry[src_notif]/observation/@classCode="OBS"		
			entry[src_notif]/observation/@moodCode="EVN"		
			entry[src_notif]/observation/ code		
			entry[src_notif]/observation/code/@code="103.10243"		
			entry[src_notif]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"		
			entry[src_notif]/observation/code/@codeSystemName	The value SHOULD be "NCTIS Data Compon- ents". See CodeSystem OIDs.	Optional CDA element.
			entry[src_notif]/observation/code/@displayName="Source of Death Notification"		
			entry[src_notif]/observation/ id		See <id> for available attributes.</id>
			entry[src_notif]/observation/ value:CD	AS 5017-2006: Health Care Client Source of Death Notification	See <code> for avail- able attributes.</code>
SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
--	--	------	---	---	--
SUBJECT OF CARE > PARTICIPANT > PERSON	The original family name of the person's mother.	01	entry[mothers_name]		
OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > Mother's Original			entry[mothers_name]/observation		
Family Name			entry[mothers_name]/observation/@classCode="OBS"		
			entry[mothers_name]/observation/@moodCode="EVN"		
			entry[mothers_name]/observation/code		
			entry[mothers_name]/observation/code/@code="103.10245"		
			entry[mothers_name]/observation/code/@codeSystem="1.2.36.1.2001.1001.101"		
			entry[mothers_name]/observation/code/ @codeSystemName	The value SHOULD be "NCTIS Data Compon- ents".	Optional CDA element.
				See CodeSystem OIDs.	
			entry[mothers_name]/observation/code/@displayName="Mother's Original Family Name"		
			entry[mothers_name]/observation/ id		See <id> for available attributes.</id>
			entry[mothers_name]/observation/value:PN		
CDA Header Data Elements			Context: /ClinicalDocument/		
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > Country of Birth	The country in which the person was born.	01	recordTarget/patientRole/patient/ birthplace/place/addr/country	1269.0 - Standard Aus- tralian Classification of Countries (SACC), Second Edition [ABS2008]	Use the name, not the numbered code.
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > State/Territory of Birth	The identifier of the Australian state or territory where a person is born.	01	recordTarget/patientRole/patient/birthplace/place/addr/state	AS 5017-2006 Australi- an State/Territory Identifier - Postal	
SUBJECT OF CARE > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA > Indigenous Status	Indigenous Status is a measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin.	11	recordTarget/patientRole/patient/ethnicGroupCode	METeOR 291036: Indi- genous Status	ethnicGroup- Code/@nullFlavor SHALL NOT be present.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Body Level 3 Data Elements			Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/section/ (See 4 Administrative	e Observations)	
SUBJECT OF CARE > PARTICIPANT > ENTI- TLEMENT	The entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context.	0*	ext:coverage2[sub_care]/@typeCode="COVBY"		See Australian Digital Health Agency CDA ex- tension: Entitlement.
			ext:coverage2[sub_care]/ext:entitlement		
			ext:coverage2[sub_care]/ext:entitlement/@classCode="COV"		
			ext:coverage2[sub_care]/ext:entitlement/@moodCode="EVN"		
			ext:coverage2[sub_care]/ext:entitlement/ext:participant/@typeCode="BEN"		
			ext:coverage2[sub_care]/ext:entitlement/ext:participant/ext:participantRole/@classCode="PAT"		
			ext:coverage2[sub_care]/ext:entitlement/ext:participant/ext:participantRole/ext:id		This SHALL hold the same value as Clinical- Document/ recordTar- get/ patientRole/ id .
SUBJECT OF CARE > PARTICIPANT > ENTI- TLEMENT > Entitlement Number	A number or code issued for the purpose of identifying the entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context.	11	ext:coverage2[sub_care]/ext:entitlement/ ext:id		See <id> for available attributes.</id>
SUBJECT OF CARE > PARTICIPANT > ENTI- TLEMENT > Entitlement Type	The description of the scope of an entitlement.	11	ext:coverage2[sub_care]/ext:entitlement/ ext:code	NCTIS: Admin Codes - Entitlement Type	See <code> for avail- able attributes.</code>
SUBJECT OF CARE > PARTICIPANT > ENTI- TLEMENT > Entitlement Validity Duration	The time interval for which an entitlement is valid.	01	ext:coverage2[sub_care]/ext:entitlement/ext:effectiveTime		See <time> for avail- able attributes.</time>
CDA Header Data Elements			Context: /ClinicalDocument/		
SUBJECT OF CARE > PARTICIPANT > Quali- fications	A list of professional certifications, and certificates recog- nising having passed a course.	00	n/a		This logical data com- ponent has no map- ping to CDA.

Example 6.2. SUBJECT OF CARE XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> <!-- Begin SUBJECT OF CARE - Header Part --> <recordTarget typeCode="RCT"> <patientRole classCode="PAT"> --> This system generated id is used for matching patient Entitlement --> <id root="52b9470e-db0b-45aa-9a81-86e5243b84df"/> <!-- ADDRESS --> <addr use="H"> <streetAddressLine>1 Patient Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> <country>Australia</country> </addr> <!-- ELECTRONIC COMMUNICATION DETAIL --> <telecom use="H" value="tel:0499999999"/> <!-- Begin PARTICIPANT --> <patient> <!-- PERSON NAME --> <name use="L"> <prefix>Ms</prefix> <given>Sally</given> <family>Grant</family> </name> <!-- Sex --> <administrativeGenderCode code="F" codeSystem="2.16.840.1.113883.13.68" codeSystemName="AS 5017-2006 Health Care Client Identifier Sex"/> <!-- Date of Birth --> <birthTime value="19480607"/> <!-- Indigenous Status --> <ethnicGroupCode code="4" codeSystem="2.16.840.1.113883.3.879.291036" codeSystemName="METEOR Indigenous Status" displayName="Neither Aboriginal nor Torres Strait Islander origin" /> <!-- Multiple Birth Indicator --> <ext:multipleBirthInd value="true"/> <ext:multipleBirthOrderNumber value="2"/>

```
<!-- Date of Death -->
  <ext:deceasedInd value="true"/>
  <ext:deceasedTime value="20101201"/>
  <!-- Country of Birth/State of Birth -->
   <birthplace>
  <place>
   <addr>
    <country>Australia</country>
    <state>QLD</state>
   </addr>
  </place>
  </birthplace>
  <!-- Entity Identifier -->
  <ext:asEntityIdentifier classCode="IDENT">
   <ext:id assigningAuthorityName="IHI" root="1.2.36.1.2001.1003.0.8003608833357361"/>
   <ext:assigningGeographicArea classCode="PLC">
    <ext:name>National Identifier</ext:name>
   </ext:assigningGeographicArea>
  </ext:asEntityIdentifier>
 </patient>
 <!-- End PARTICIPANT -->
</patientRole>
</recordTarget>
<!-- End SUBJECT OF CARE - Header Part -->
<!-- End CDA Header -->
<!-- Begin CDA Body -->
<component>
<structuredBody>
 ...
 <!-- Begin Administrative Observations -->
 <component>
  <section>
   <code code="102.16080"
    codeSystem="1.2.36.1.2001.1001.101"
    codeSystemName="NCTIS Data Components"
    displayName="Administrative Observations"/>
   <title>Administrative Observations</title>
   <!-- narrative block -->
   <text>
    Date of Birth is Calculated From Age
       True
      Date of Birth Accuracy Indicator
       AAA
      Age
       54
```

...

```
Age Accuracy Indicator
   True
  Birth Plurality
   3
  Australian Medicare Card Number
   2296818481
  ...
  </text>
....
<!-- Begin SUBJECT OF CARE - Body -->
<!-- Begin Date of Birth is Calculated From Age -->
<entry><!-- [calc_age] -->
 <observation classCode="OBS" moodCode="EVN">
 <id root="fe8bdabd-d5c9-4957-9fd7-bc706b6677e4"/>
  <code code="103.16233"
  codeSystem="1.2.36.1.2001.1001.101"
  codeSystemName="NCTIS Data Components"
  displayName="Date of Birth is Calculated From Age"/>
  <value value="true" xsi:type="BL"/>
 </observation>
</entry><!-- [calc_age] -->
<!-- End Date of Birth is Calculated From Age -->
<!-- Begin DATE OF BIRTH ACCURACY INDICATOR -->
<entry><!-- [dob_acc] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="27750576-64de-4e5c-9ec8-06c35b55c31d"/>
  <code code="102.16234"
  codeSystem="1.2.36.1.2001.1001.101"
  codeSystemName="NCTIS Data Components"
  displayName="Date of Birth Accuracy Indicator"/>
  <value code="AAA" xsi:type="CS"/>
 </observation>
</entry><!-- [dob_acc] -->
<!-- End DATE OF BIRTH ACCURACY INDICATOR -->
<!-- Begin Age -->
<entry><!-- [age] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="f3ca6643-d9c0-4112-80ef-0afe478ed11f"/>
  <code code="103.20109"
  codeSystem="1.2.36.1.2001.1001.101"
  codeSystemName="NCTIS Data Components"
  displayName="Age"/>
  <value xsi:type="PQ" value="54" unit="a"/>
 </observation>
</entry><!-- [age] -->
<!-- End Age -->
<!-- Begin Age Accuracy Indicator -->
<entry><!-- [age_acc] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="55f4cdea-ef2d-4771-a600-800f95fc0abf"/>
  <code code="103.16279"
```

```
codeSystem="1.2.36.1.2001.1001.101"
     codeSystemName="NCTIS Data Components"
    displayName="Age Accuracy Indicator"/>
   <value value="true" xsi:type="BL"/>
   </observation>
  </entry><!-- [age_acc] -->
  <!-- End Age Accuracy Indicator -->
  <!-- Begin Birth Plurality -->
  <entry><!-- [birth_plr] -->
   <observation classCode="OBS" moodCode="EVN">
   <id root="344b0577-750c-48e6-998d-b38f4ec86d0e"/>
   <code code="103.16249"
    codeSystem="1.2.36.1.2001.1001.101"
    codeSystemName="NCTIS Data Components"
    displayName="Birth Plurality"/>
   <value value="3" xsi:type="INT"/>
   </observation>
  </entry><!-- [birth_plr] -->
  <!-- End Birth Plurality -->
  <!-- Begin DATE OF DEATH ACCURACY INDICATOR -->
  <entry><!-- [dod_acc] -->
   <observation classCode="OBS" moodCode="EVN">
   <id root="455bee4e-ee44-43f1-b722-5ddff67a18c6"/>
   <code code="102.16252"
    codeSystem="1.2.36.1.2001.1001.101"
     codeSystemName="NCTIS Data Components"
    displayName="Date of Death Accuracy Indicator"/>
   <value code="AAA" xsi:type="CS"/>
   </observation>
  </entry><!-- [dod_acc] -->
  <!-- End DATE OF DEATH ACCURACY INDICATOR -->
  <!-- Begin SUBJECT OF CARE ENTITLEMENT -->
  <ext:coverage2 typeCode="COVBY">
   <ext:entitlement classCode="COV" moodCode="EVN">
   <ext:id assigningAuthorityName="Medicare Card Number" root="1.2.36.1.5001.1.0.7.1" extension="2296818481" />
   <ext:code code="1" codeSystem="1.2.36.1.2001.1001.101.104.16047" codeSystemName="NCTIS Entitlement Type Values" displayName="Medicare Benefits"/>
   <ext:effectiveTime>
    <high value="20110101"/>
   </ext:effectiveTime>
   <ext:participant typeCode="BEN">
     <ext:participantRole classCode="PAT">
     <ext:id root="52b9470e-db0b-45aa-9a81-86e5243b84df" />
    </ext:participantRole>
   </ext:participant>
   </ext:entitlement>
  </ext:coverage2>
  <!-- End SUBJECT OF CARE ENTITLEMENT -->
  <!-- End SUBJECT OF CARE - Body -->
  ....
</section>
</component>
<!-- End Administrative Observations -->
....
```

```
</structuredBody>
</component>
<!-- End CDA Body -->
</ClinicalDocument>
```

6.1.2 DOCUMENT AUTHOR

Identification

Name	DOCUMENT AUTHOR
Metadata Type	Data Group
Identifier	DG-10296

Relationships

Parent

Data Type	Name	Occurrences (child within parent)
	CLINICAL DOCUMENT	11

Choices



Note

Mentioned below are the possible mutually exclusive 'DOCUMENT AUTHOR' instantiation choices.

Data Type	Name
	DOCUMENT AUTHOR as a PERSON
	DOCUMENT AUTHOR as a DEVICE

6.1.2.1 DOCUMENT AUTHOR as a PERSON

CDA R-MIM Representation

Figure 6.4 DOCUMENT AUTHOR as a PERSON shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The DOCUMENT AUTHOR data group instantiated as PERSON is related to its context of ClinicalDocument by the author participation class. An author is a person in the role of assignedAuthor (AssignedAuthor class). The entity playing the role is assignedAuthorChoice (Person class). The entity identifier of the participant is mapped to the EntityIdentifier class (Australian Digital Health Agency CDA extension) and is associated to the assignedAuthorChoice.



Figure 6.4. DOCUMENT AUTHOR as a PERSON

Figure 6.5 DOCUMENT AUTHOR as a PERSON - ENTITLEMENT shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.



Figure 6.5. DOCUMENT AUTHOR as a PERSON - ENTITLEMENT

CDA Mapping



Note

NS = In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the <u>HL7 code set registration procedure</u>¹ with an appropriate object identifier (OID), and **SHALL** be publicly available.

When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Header Data Elements			Context: /ClinicalDocument/		
DOCUMENT AUTHOR	Composer of the document.	11	author		
n/a	n/a	11	author/assignedAuthor/id		Required CDA element.
					See <id> for available attributes.</id>
DOCUMENT AUTHOR > Participation Period	The time interval during which the participation in the healthcare event occurred.	11	author/ time	Although the definition of this ele- ment states that it is a time inter- val, the following applies: "The end of the participation period of a Document Author participation is the time associated with the com- pletion of editing the content of a document." Thus only the end time need be recorded.	 Required CDA element. The author/time element SHALL be implemented as either: a value attribute (populated with the end time of the authorship or encounter, as appropriate); or a high element AND a low element, both with value attributes and neither with a nullFlavor attribute.
DOCUMENT AUTHOR > LOCATION OF PAR- TICIPATION	Specifies the geographic site (building, room, etc) where the participation of a healthcare event occurs.	00	See Known Issues.		LOCATION OF PARTICIPATION is not currently mapped.
DOCUMENT AUTHOR > Participation Type	The categorisation of the nature of the participant's involve- ment in the healthcare event described by this participa- tion.	11	n/a	Participation Type SHALL have an implementation-specific value equivalent to "Document Author".	Not mapped directly; encompassed implicitly in au- thor/typeCode="AUT" (optional, fixed value).

¹ http://www.hl7.org/oid/index.cfm?ref=footer

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
DOCUMENT AUTHOR > Role	The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective.	11	author/assignedAuthor/code	The code SHALL be 'AGNT' if the 'Document Author' is an 'Author- ised Representative' or 'Nominated Representative'.	See <code> for available attributes.</code>
				The code SHALL be 'SELF' is the 'Document Author' is same as the 'Subject of Care'.	
				Where the Document Author is acting as a care provider:	
				Role SHOULD have a value chosen from 1220.0 - ANZSCO - Australian and New Zealand Standard Classific- ation of Occupations, First Edition, Revision 1 [ABS2009].	
				However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7 and publicly available MAY be used.	
DOCUMENT AUTHOR > PARTICIPANT	Details pertinent to the identification of an individual or organisation or device that has participated in a healthcare event/encounter/clinical interaction.	11	author/assignedAuthor/ assignedPerson		
DOCUMENT AUTHOR > PARTICIPANT > En- tity Identifier	A number or code issued for the purpose of identifying a participant within a healthcare context.	1*	author/assignedAuthor/assignedPerson/ <entity identifier=""></entity>		See common pattern: Entity Identi- fier.
DOCUMENT AUTHOR > PARTICIPANT > AD- DRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	0*	author/assignedAuthor/ <address></address>		See common pattern: Address.
DOCUMENT AUTHOR > PARTICIPANT > ELECTRONIC COMMUNICATION DETAIL	The electronic communication details of entities.	0*	author/assignedAuthor/ <electronic communication="" detail=""></electronic>		See common pattern: Electronic Communication Detail.
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE	Represents a choice to be made at run-time between PERSON, ORGANISATION or DEVICE.	11	n/a	PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.	This logical data component has no mapping to CDA.
				PERSON.	The cardinality of this component propagates to its children.
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON	An individual who is in the role of healthcare provider, who uses or is a potential user of a healthcare service, or is in some way related to, or a representative of, a subject of care (patient).	11	n/a		Not mapped directly; encompassed implicitly in author/assignedAu- thor/assignedPerson.
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > PERSON NAME	The appellation by which an individual may be identified separately from any other within a social context.	1*	author/assignedAuthor/assignedPerson/ <person name=""></person>		See common pattern: Person Name.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > Relationship to Subject of Care	The relationship of a participant to a subject of care (pa- tient).	01	author/assignedAuthor/assignedPerson/ext:personalRelationship		See Australian Digital Health Agency CDA extension: PersonalRelation- ship.
					This logical data component SHALL NOT be instantiated if the author is a healthcare provider. If ext:per- sonalRelationship is instantiated the value of Entity Identifier SHALL NOT be a HPI-I.
			author/assignedAuthor/assignedPerson/ext:personalRelationship/@classCode="PRS"		
			author/assignedAuthor/assignedPerson/ext:personalRelationship/ext:code	NS	
			author/assignedAuthor/assignedPerson/ ext:personalRelationship/ ext:asPersonalRelationship		
			author/assignedAuthor/assignedPerson/ext:personalRelationship/ ext:asPersonalRelationship/@classCode="PSN"		
			author/assignedAuthor/assignedPerson/ext:personalRelationship/ ext:asPersonalRelationship/@determinerCode="INSTANCE"		
			author/assignedAuthor/assignedPerson/ext:personalRelationship/ ext:asPersonalRelationship/id		This SHALL hold the same value as ClinicalDocument/recordTarget/pa- tientRole/ id .
			author/assignedAuthor/assignedPerson/ext:personalRelationship/ ext:asPersonalRelationship/ administrativeGenderCode/@nullFlavor="NA"		Included for CDA conformance only.
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > EMPLOYMENT DETAIL	A person's occupation and employer.	01	author/assignedAuthor/assignedPerson/ <employment></employment>		See common pattern: Employment.
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE >	Additional characteristics of a person that may be useful for identification or other clinical purposes.	01	n/a		This logical data component has no mapping to CDA.
PERSON > DEMOGRAPHIC DATA					The cardinality of this component propagates to its children.
					See Known Issues.
			author/assignedAuthor/assignedPerson/ext:administrativeGenderCode		This logical data component SHALL NOT be instantiated if the author is a healthcare provider. If ext:ad- ministrativeGenderCode is instanti- ated the value of Entity Identifier SHALL NOT be a HPI-I.
			author/assignedAuthor/assignedPerson/ext:birthTime		This logical data component SHALL NOT be instantiated if the author is a healthcare provider. If ext:birthTime is instantiated the value of Entity Identifier SHALL NOT be a HPI-I.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Body Level 3 Data Elements	1		Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/se	ction/ (See 4 Administrative Observat	ions)
DOCUMENT AUTHOR > PARTICIPANT > EN-	The entitlement or right of a participant to act in a given	0*	ext:coverage2[doc_auth]/@typeCode="COVBY"		
TITLEMENT	TITLEMENT capacity (as defined by Entitlement Type) within a health- care context.		ext:coverage2[doc_auth]/ext:entitlement		
		ext:coverage2[doc_auth]/ext:entitlement/@classCode="COV"			
			ext:coverage2[doc_auth]/ext:entitlement/@moodCode="EVN"		
			ext:coverage2[doc_auth]/ext:entitlement/ext:participant/@typeCode="HLD"		
			ext:coverage2[doc_auth]/ext:entitlement/ext:participant/ext:participantRole/ @classCode="ASSIGNED"		
			ext:coverage2[doc_auth]/ext:entitlement/ext:participant/ext:participantRole/ext:id		This SHALL hold the same value as author/assignedAuthor/id.
DOCUMENT AUTHOR > PARTICIPANT > ENTI- TLEMENT > Entitlement Number	A number or code issued for the purpose of identifying the entitlement or right of a participant to act in a given capa- city (as defined by Entitlement Type) within a healthcare context.	11	ext:coverage2[doc_auth]/ext:entitlement/ext:id		See <id> for available attributes.</id>
DOCUMENT AUTHOR > PARTICIPANT > ENTI- TLEMENT > Entitlement Type	The description of the scope of an entitlement.	11	ext:coverage2[doc_auth]/ext:entitlement/ ext:code	NCTIS: Admin Codes - Entitlement Type	See <code> for available attributes.</code>
DOCUMENT AUTHOR > PARTICIPANT > ENTI- TLEMENT > Entitlement Validity Duration	The time interval for which an entitlement is valid.	01	ext:coverage2[doc_auth]/ext:entitlement/ext:effectiveTime		See <time> for available attributes.</time>
CDA Header Data Elements	<u>`</u>		Context: /ClinicalDocument/		
DOCUMENT AUTHOR > PARTICIPANT >	A list of professional certifications, and certificates recog-	01	author/assignedAuthor/assignedPerson/ext:asQualifications		See Australian Digital Health Agency
Qualifications nising having passed	nising having passed a course.		author/assignedAuthor/assignedPerson/ext:asQualifications/@classCode="QUAL"		CDA extension: Qualifications.
			author/assignedAuthor/assignedPerson/ext:asQualifications/ext:code/originalText	Qualifications is a text field, so the text list is entered in the original- Text field of the code element.	

Example 6.3. DOCUMENT AUTHOR as a PERSON XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> <!-- Begin DOCUMENT AUTHOR --> <author> <!-- Participation Period --> <time value="200910201235+1000"/> <assignedAuthor> <!-- id is used for system purposes such as matching --> <id root="b830b9a6-4ea7-4a1a-92eb-ddf18b82a291"/> <!-- Role --> <code code="253111" codeSystem="2.16.840.1.113883.13.62" codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1" displayName="General Medical Practitioner" /> <!-- ADDRESS --> <addr use="WP"> <streetAddressLine>1 Clinician Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> <country>Australia</country> </addr> <!-- ELECTRONIC COMMUNICATION DETAIL --> <telecom use="WP" value="tel:0712341234"/> <assignedPerson> <!-- PERSON NAME --> <name> <prefix>Dr.</prefix> <given>Good</given> <family>Doctor</family> </name> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT"> <ext:id assigningAuthorityName="HPI-I" root="1.2.36.1.2001.1003.0.8003619900015717" /> <ext:assigningGeographicArea classCode="PLC"> <ext:name>National Identifier</ext:name>

</ext:assigningGeographicArea> </ext:asEntityIdentifier> <!-- Begin EMPLOYMENT DETAIL --> <ext:asEmployment classCode="EMP"> <!-- Position In Organisation --> <ext:code> <originalText>GP</originalText> </ext:code> <!-- Occupation --> <ext:jobCode code="253111" codeSystem="2.16.840.1.113883.13.62"</pre> codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1" displayName="General Medical Practitioner" /> <!-- Employment Type --> <ext:jobClassCode code="FT" codeSystem="2.16.840.1.113883.5.1059"</pre> codeSystemName="HL7:EmployeeJobClass" displayName="full-time" /> <!-- Begin EMPLOYER ORGANISATION --> <ext:employerOrganization> <!-- Department/Unit --> <name>Acme Hospital One</name> <asOrganizationPartOf> <wholeOrganization> <!-- Organisation Name --> <name use="ORGB">Acme Hospital Group</name> <!-- ELECTRONIC COMMUNICATION DETAIL --> <telecom use="WP" value="tel:0712341234" /> <!-- ADDRESS --> <addr use="WP"> <streetAddressLine>1 Clinician Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> </addr> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT"> <ext:id assigningAuthorityName="HPI-O" root="1.2.36.1.2001.1003.0.8003621566684455" /> <ext:assigningGeographicArea classCode="PLC"> <ext:name>National Identifier</ext:name> </ext:assigningGeographicArea> </ext:asEntityIdentifier> </wholeOrganization> </asOrganizationPartOf> </ext:employerOrganization> <!-- End EMPLOYER ORGANISATION --> </ext:asEmployment> <!-- End EMPLOYMENT DETAIL --> <!-- Qualifications -->

<ext:acQualifications classCode="QUAL">
<ext:acQualifications classCode="QUAL">
<ext:code>
<originalText>M.B.B.S</originalText>

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...

```
</ext:code>
   </ext:asQualifications>
  </assignedPerson>
 </assignedAuthor>
</author>
<!-- End DOCUMENT AUTHOR -->
<!-- End CDA Header -->
<!-- Begin CDA Body -->
<component>
 <structuredBody>
  ....
  <!-- Begin Administrative Observations -->
  <component>
  <section>
    <code code="102.16080" codeSystem="1.2.36.1.2001.1001.101" codeSystemName="NCTIS Data Components" displayName="Administrative Observations"/>
    <title>Administrative Observations</title>
    <!-- narrative block -->
    <text>
     Australian Medicare Prescriber Number
       049960CT
      </text>
    ....
    <!-- Begin DOCUMENT AUTHOR - Body -->
    <!-- Begin Document Author ENTITLEMENT -->
    <ext:coverage2 typeCode="COVBY">
    <ext:entitlement classCode="COV" moodCode="EVN">
     <ext:id assigningAuthorityName="Medicare Prescriber number" root="1.2.36.174030967.0.3" extension="049960CT" />
     <ext:code code="10" codeSystem="1.2.36.1.2001.1001.101.104.16047" codeSystemName="NCTIS Entitlement Type Values"</pre>
      displayName="Medicare Prescriber Number" />
     <ext:effectiveTime>
      <low value="200501010101+1100" />
      <high value="202501010101+1100" />
     </ext:effectiveTime>
     <ext:participant typeCode="HLD">
      <ext:participantRole classCode="ASSIGNED">
       <!-- Same as the author (assignedAuthor) id -->
       <ext:id root="b830b9a6-4ea7-4a1a-92eb-ddf18b82a291" />
      </ext:participantRole>
     </ext:participant>
     </ext:entitlement>
    </ext:coverage2>
    <!-- End Document Author ENTITLEMENT -->
    <!-- End DOCUMENT AUTHOR - Body -->
  </section>
  </component>
  <!-- End Administrative Observations -->
  ...
```

</structuredBody>

</component> <!-- End CDA Body --> </ClinicalDocument>

6.1.2.2 DOCUMENT AUTHOR as a DEVICE

CDA R-MIM Representation

Figure 6.6 DOCUMENT AUTHOR as a DEVICE shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The DOCUMENT AUTHOR data group instantiated as DEVICE is related to its context of ClinicalDocument by the author participation class. An author is a device in the role of assignedAuthor (AssignedAuthor class). The entity playing the role is assignedAuthorChoice (AuthoringDevice class). The entity identifier of the participant is mapped to the EntityIdentifier class (Australian Digital Health Agency CDA extension) and is associated with the assignedAuthorChoice.



Figure 6.6. DOCUMENT AUTHOR as a DEVICE

CDA Mapping

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Header Data Elements	1		Context: /ClinicalDocument/		
DOCUMENT AUTHOR	Composer of the document.	11	author		
n/a	n/a	11	author/assignedAuthor/ id		Required CDA element.
					See <id> for available attributes.</id>
DOCUMENT AUTHOR > Participation Period	The time interval during which the participation in the healthcare event occurred.	11	author/ time	Although the definition of this ele- ment states that it is a time inter- val, the following applies: "The end of the participation period of a Document Author participation is the time associated with the com- pletion of editing the content of a document." Thus only the end time need be recorded.	 Required CDA element. The author/time element SHALL be implemented as either: a value attribute (populated with the end time of the authorship or encounter, as appropriate); or a high element AND a low element, both with value attributes and neither with a nullFlavor attribute.
DOCUMENT AUTHOR > LOCATION OF PAR- TICIPATION	Specifies the geographic site (building, room, etc) where the participation of a healthcare event occurs.	00	See Known Issues.		LOCATION OF PARTICIPATION is not currently mapped.
DOCUMENT AUTHOR > Participation Type	The categorisation of the nature of the participant's involve- ment in the healthcare event described by this participa- tion.	11	n/a	Participation Type SHALL have an implementation-specific value equivalent to "Document Author".	Not mapped directly; encompassed implicitly in au- thor/typeCode="AUT" (optional, fixed value).
DOCUMENT AUTHOR > Role	The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective.	11	author/assignedAuthor/code	Role SHALL have an implementa- tion-specific value equivalent to "Not Applicable".	n/a
DOCUMENT AUTHOR > PARTICIPANT	Details pertinent to the identification of an individual or organisation or device that has participated in a healthcare event/encounter/clinical interaction.	11	author/assignedAuthor/assignedAuthoringDevice		
DOCUMENT AUTHOR > PARTICIPANT > En- tity Identifier	A number or code issued for the purpose of identifying a participant within a healthcare context.	1*	author/assignedAuthor/assignedAuthoringDevice/ <entity identifier=""></entity>		See common pattern: Entity Identi- fier.
DOCUMENT AUTHOR > PARTICIPANT > AD- DRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	0*	author/assignedAuthor/ <address></address>		See common pattern: Address.
DOCUMENT AUTHOR > PARTICIPANT > ELECTRONIC COMMUNICATION DETAIL	The electronic communication details of entities.	0*	author/assignedAuthor/ <electronic communication="" detail=""></electronic>		See common pattern: Electronic Communication Detail.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE	Represents a choice to be made at run-time between PERSON, ORGANISATION or DEVICE.	11	n/a	PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a DEVICE.	This logical data component has no mapping to CDA. The cardinality of this component propagates to its children.
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > DEVICE	Describes a device or software module of interest to, or involved in, the business of healthcare service provision.	11	n/a		Not mapped directly; encompassed implicitly in author/assignedAu- thor/assignedAuthoringDevice.
DOCUMENT AUTHOR > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > DEVICE > Device Name	The full name of the device.	11	author/assignedAuthor/assignedAuthoringDevice/ softwareName		
CDA Body Level 3 Data Elements	<u>`</u>		Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/set	ction/ (See 4 Administrative Observat	ions)
DOCUMENT AUTHOR > PARTICIPANT > EN- TITLEMENT	The entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a health- care context.	00	See Known Issues.		Prohibition of ENTITLEMENT is not currently mapped.
CDA Header Data Elements			Context: /ClinicalDocument/		
DOCUMENT AUTHOR > PARTICIPANT > Qualifications	A list of professional certifications, and certificates recog- nising having passed a course.	00	n/a		Not mapped directly; prohibited implicitly in author/assignedAu- thor/assignedAuthoringDevice.

Example 6.4. DOCUMENT AUTHOR as a DEVICE XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> <!-- Begin DOCUMENT AUTHOR --> <author> <!-- Participation Period --> <time value="201110201235+1000" /> <assignedAuthor> <!-- id is used for system purposes such as matching --> <id root="331cc28f-528a-4362-bd88-83225c7f45f8" /> <!-- Role --> <code nullFlavor="NA"/> <!-- ADDRESS for 'Croydon GP Centre' --> <addr use="WP"> <streetAddressLine>Room 23, 29 Clinician Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> <country>Australia</country> </addr> <!-- ELECTRONIC COMMUNICATION DETAIL for 'Croydon GP Centre' --> <telecom use="WP" value="mailto:help@foo.com.au"/> <assignedAuthoringDevice> <!-- Device Name -->

<softwareName>Good Health EHR v18.3.014</softwareName>

<!-- Entity Identifier -->
<!-- Entity Identifier -->
<!-- Local device identifier assigned by 'Croydon GP Centre' -->
<ext:asEntityIdentifier classCode="IDENT">
<ext:isIdentifier classCode="IDENT">
</ext:isIdentifier>

</assignedAuthoringDevice>

</assignedAuthor> </author> <!-- End DOCUMENT AUTHOR -->

...

<!-- End CDA Header -->

</ClinicalDocument>

6.1.3 ENCOUNTER

Identification

Name	ENCOUNTER
Metadata Type	Data Group
Identifier	DG-16057

Relationships

Parent

Data Type	Name	Occurrences (child within parent)	
	CLINICAL DOCUMENT	01	

Children

Data Type	Name	Occurrence
a	HEALTHCARE FACILITY	01

CDA R-MIM Representation

Figure 6.7 ENCOUNTER shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The ENCOUNTER data group is represented by an EncompassingEncounter class that is related to its containing ClinicalDocument class by a componentOf. EncompassingEncounter represents the setting of the clinical encounter during which the documented clinical information occurred.

Note: See CDA R-MIM for shadow c	lasses.	
ClinicalDocument	componentOf typeCode*: <= COMP 01 encompassingEncounter	EncompassingEncounter classCode*: <= ENC moodCode*: <= EVN effectiveTime*: IVL <ts> [11]</ts>

Figure 6.7. ENCOUNTER

CDA Mapping

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Header Data Elements			Context: /ClinicalDocument/		
ENCOUNTER	Encounter between a subject of care and a health system.	01	componentOf/encompassingEncounter		
ENCOUNTER > DateTime Health Event Started	Date, and optionally time, that the health event to which the document relates was started.	01	componentOf/encompassingEncounter/effectiveTime/low/@value		See <time> for available attributes.</time>
ENCOUNTER > DateTime Health Event Ended	Date, and optionally time, that the health event to which the document relates was completed.	01	componentOf/encompassingEncounter/effectiveTime/high/@value		See <time> for available attributes.</time>
ENCOUNTER > HEALTHCARE FACILITY	Healthcare organisation or facility involved in, or associ- ated with, the delivery of services to the subject of care.		See: HEALTHCARE FACILITY		

Example 6.5. ENCOUNTER XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" ... > <!-- Begin CDA Header --> ... <!-- Begin ENCOUNTER --> <componentOf> <encompassingEncounter> <effectiveTime> <!-- DateTime Health Event Started --> <low value="201112141100+1000" /> <!-- DateTime Health Event Ended --> <high value="201112141130+1000" /> </effectiveTime> <!-- Begin HEALTHCARE FACILITY --> <location> </location> <!-- End HEALTHCARE FACILITY --> </encompassingEncounter> </componentOf> <!-- End ENCOUNTER --> <!-- End CDA Header --> </ClinicalDocument>

6.1.3.1 HEALTHCARE FACILITY

Identification

Name	HEALTHCARE FACILITY
Metadata Type	Data Group
Identifier	DG-10296

Relationships

Parent

I	Data Type	Name	Occurrences (child within parent)
(2	ENCOUNTER	01

CDA R-MIM Representation

Figure 6.8 HEALTHCARE FACILITY shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The HEALTHCARE FACILITY data group instantiated as an ORGANISATION is related to its context of encompassingEncounter (Encounter class) by the location participation class. A location is an organisation in the role of healthCareFacility (HealthCareFacility class). The entity playing the role is serviceProviderOrganization (Organization class). The entity identifier of the participant is mapped to the EntityIdentifier class (Australian Digital Health Agency CDA extension) and is associated to the wholeOrganization.



Figure 6.8. HEALTHCARE FACILITY

CDA Mapping

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments	
CDA Header Data Elements			Context: /ClinicalDocument/componentOf/encompassingEncounter/			
HEALTHCARE FACILITY	Healthcare organisation or facility involved in, or associ- ated with, the delivery of services to the subject of care.	01	location			
n/a	n/a	01	location/healthCareFacility/id		See <id> for available attributes.</id>	
HEALTHCARE FACILITY > Participation Period	The time interval during which the participation in the healthcare event occurred.	00	n/a		This logical data com- ponent has no map- ping to CDA.	
					Encompassed implicitly in encompassingEn- counter/effectiveTime.	
HEALTHCARE FACILITY > LOCATION OF PARTICIPATION	Specifies the geographic site (building, room, etc) where the participation of a healthcare event occurs.	00	See Known Issues.		LOCATION OF PARTICIP- ATION is not currently mapped.	
HEALTHCARE FACILITY > Participation Type	The categorisation of the nature of the participant's in- volvement in the healthcare event described by this participation.	11	n/a	Participation Type SHALL have an imple- mentation-specific value equivalent to "Facility".	Not mapped directly, encompassed implicitly in loca- tion/@typeCode="LOC" (optional, fixed value).	
HEALTHCARE FACILITY > Role	The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective.	11	location/healthCareFacility/code	Role SHOULD have a value representing the type of Facility e.g. Hospital, Clinic.	See <code> for avail- able attributes.</code>	
				nullFlavor="NI" MAY be permitted.		
HEALTHCARE FACILITY > PARTICIPANT	Details pertinent to the identification of an individual or organisation or device that has participated in a health- care event/encounter/clinical interaction.	11	location/healthCareFacility/serviceProviderOrganization/asOrganizationPartOf/wholeOrganization			
HEALTHCARE FACILITY > PARTICIPANT > Entity Identifier	A number or code issued for the purpose of identifying a participant within a healthcare context.	1*	location/healthCareFacility/serviceProviderOrganization/asOrganizationPartOf/wholeOrganization/ <entity identifier=""></entity>		See common pattern: Entity Identifier.	
HEALTHCARE FACILITY > PARTICIPANT > ADDRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	1*	location/healthCareFacility/serviceProviderOrganization/asOrganizationPartOf/wholeOrganization/ <address></address>		See common pattern: Address.	
HEALTHCARE FACILITY > PARTICIPANT > ELECTRONIC COMMUNICATION DETAIL	The electronic communication details of entities.	0*	location/healthCareFacility/serviceProviderOrganization/asOrganizationPartOf/wholeOrganization/ <electronic communication="" detail=""></electronic>		See common pattern: Electronic Communica- tion Detail.	

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
HEALTHCARE FACILITY > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE	Represents a choice to be made at run-time between PERSON, ORGANISATION or DEVICE.	11	n/a	PERSON OR ORGANISA- TION OR DEVICE SHALL be instantiated as a ORGANISATION.	This logical data com- ponent has no map- ping to CDA. The cardinality of this component propagates to its children.
HEALTHCARE FACILITY > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISATION	Any organisation of interest to, or involved in, the business of healthcare service provision.	11	n/a		Not mapped directly, encompassed implicitly in location/healthCare- Facility/serivceProvi- derOrganization/asOr- ganizationPartOf/who- leOrganization.
HEALTHCARE FACILITY > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISATION > Organisation Name	The name by which an organisation is known or called.	11	location/healthCareFacility/serviceProviderOrganization/asOrganizationPartOf/wholeOrganization/name		
HEALTHCARE FACILITY > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISATION > Department/Unit	The name by which a department or unit within a larger organisation is known or called.	01	location/healthCareFacility/serviceProviderOrganization/name		
HEALTHCARE FACILITY > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISATION > Organisation Name Us- age	The classification that enables differentiation between recorded names for an organisation or service location.	01	location/healthCareFacility/serviceProviderOrganization/asOrganizationPartOf/wholeOrganization/name/@use	AS 4846-2006: Health Care Provider Organisa- tion Name Usage	
CDA Body Level 3 Data Elements			Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/section/ (See 4 Administrative Observations)		
HEALTHCARE FACILITY > PARTICIPANT > ENTITLEMENT	The entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context.	00	See Known Issues.		Prohibition of ENTITLE- MENT is not currently mapped.
CDA Header Data Elements			Context: /ClinicalDocument/componentOf/encompassingEncounter/		
HEALTHCARE FACILITY > PARTICIPANT > Qualifications	A list of professional certifications, and certificates recog- nising having passed a course.	00	n/a		This logical data com- ponent has no map- ping to CDA.

Example 6.6. HEALTHCARE FACILITY XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> <!-- Begin ENCOUNTER --> <componentOf> <encompassingEncounter> <!-- Begin HEALTHCARE FACILITY --> <location> <healthCareFacility> <!-- id is used for system purposes such as matching --> <id root="cb8d5167-913e-4982-94e1-c967452ac90f"/> <!-- Role --> <code code="HOSP" codeSystem="2.16.840.1.113883.5.111" codeSystemName="HL7 ServiceDeliveryLocatonRoleType" displayName="Hospital"/> <serviceProviderOrganization> <!-- Department/Unit --> <name>Emergency Department</name> <asOrganizationPartOf> <wholeOrganization> <!-- Organisation Name --> <name use="ORGB">Healthville Hospital</name> <!-- ELECTRONIC COMMUNICATION DETAIL --> <telecom use="WP" value="tel:0799999999"/> <!-- ADDRESS --> <addr> <streetAddressLine>1 Hospital Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> <country>Australia</country> </addr> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT">

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</asOrganizationPartOf>
</serviceProviderOrganization>
</healthCareFacility>
</location>
<!-- End HEALTHCARE FACILITY -->

</encompassingEncounter> </componentOf> <!-- End ENCOUNTER -->

<!-- End CDA Header -->

</ClinicalDocument>

6.1.4 PARTICIPANT

Identification

Name	PARTICIPANT
Metadata Type	Data Group
Identifier	DG-10296

Relationships

Parent

Data Type Name		Occurrences (child within parent)
	CLINICAL DOCUMENT	0*

Choices



Note

Mentioned below are the possible 'PARTICIPANT' instantiation choices.

ata Type Name		
&	PARTICIPANT as a PERSON	
å	PARTICIPANT as an ORGANISATION	

6.1.4.1 PARTICIPANT as a PERSON

CDA R-MIM Representation

Figure 6.9 PARTICIPANT as a PERSON shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The PARTICIPANT as a PERSON data group instantiated as 'PERSON' is related to its context of ClinicalDocument by the participant participation class. A participant is a person in the role of associatedEntity (AssociatedEntity class). The entity playing the role is associatedPerson (Person class). The entity identifier of the participant is mapped to the EntityIdentifier class (Australian Digital Health Agency CDA extension) which is related to the associatedEntity. The relationship to the subject of care is mapped to the PersonalRelationship class (Australian Digital Health Agency CDA extension) which is related to the associatedEntity.



Figure 6.9. PARTICIPANT as a PERSON

Figure 6.10 PARTICIPANT as a PERSON - ENTITLEMENT shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.



Figure 6.10. PARTICIPANT as a PERSON - ENTITLEMENT

CDA Mapping



Note

NS = In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the <u>HL7 code set registration procedure</u>² with an appropriate object identifier (OID), and **SHALL** be publicly available.

When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Header Data Elements			Context: /ClinicalDocument/		
PARTICIPANT	Party involved in, or associated with, the provision of services to the subject of care.	0*	participant[part_person]		
n/a	n/a	11	participant[part_person]/associatedEntity/ id		Required CDA element.
					See <id> for available attributes.</id>
PARTICIPANT > Participation Period	The time interval during which the participation in the healthcare event occurred.	00	participant[part_person]/ time		
PARTICIPANT > LOCATION OF PARTICIPA- TION	Specifies the geographic site (building, room, etc) where the participation of a healthcare event occurs.	00	See Known Issues.		LOCATION OF PARTICIPATION is not currently mapped.
PARTICIPANT > Participation Type	The categorisation of the nature of the participant's in- volvement in the healthcare event described by this parti- cipation.	11	participant[part_person]/@typeCode		

² http://www.hl7.org/oid/index.cfm?ref=footer
SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
PARTICIPANT > Role	The involvement or role of the participant in the related action from a healthcare perspective rather than the spe- cific participation perspective.	11	participant[part_person]/ associatedEntity/code	The code SHALL be 'AGNT' if the 'Participant' is an 'Authorised Representative' or 'Nominated Representative'. The code SHALL be 'SELF' is the 'Participant' is same as the 'Subject of Care'. Where the Participant is acting as a care provider:	See <code> for available attributes.</code>
				Role SHOULD have a value chosen from 1220.0 - ANZSCO - Australian and New Zealand Standard Classi- fication of Occupations, First Edi- tion, Revision 1 [ABS2009]. However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7 and publicly available MAY be used.	
			participant[part_person]/associatedEntity/@classCode	HL7:RoleClassAssociative (usually ="PROV" where the Participant is acting as a care provider)	
PARTICIPANT > PARTICIPANT	Details pertinent to the identification of an individual or organisation or device that has participated in a healthcare event/encounter/clinical interaction.	11	participant[part_person]/associatedEntity/associatedPerson		
PARTICIPANT > PARTICIPANT > Entity Iden- tifier	A number or code issued for the purpose of identifying a participant within a healthcare context.	0*	participant[part_person]/associatedEntity/associatedPerson/ <entity identifier=""></entity>		See common pattern: Entity Identi- fier.
PARTICIPANT > PARTICIPANT > ADDRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	0*	participant[part_person]/associatedEntity/ <address></address>		See common pattern: Address.
PARTICIPANT > PARTICIPANT > ELECTRONIC COMMUNICATION DETAIL	The electronic communication details of entities.	0*	participant[part_person]/associatedEntity/ <electronic communication="" detail=""></electronic>		See common pattern: Electronic Communication Detail.
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE	Represents a choice to be made at run-time between PERSON, ORGANISATION or DEVICE.	11	n/a	PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.	This logical data component has no mapping to CDA. The cardinality of this component propagates to its children.
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON	An individual who is in the role of healthcare provider, who uses or is a potential user of a healthcare service, or is in some way related to, or a representative of, a subject of care (patient).	11	n/a		Not mapped directly, encompassed implicitly in participant[part_per- son]/associatedEntity/associated- Person.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > PERSON NAME	The appellation by which an individual may be identified separately from any other within a social context.	1*	participant[part_person]/associatedEntity/associatedPerson/ <person name=""></person>		See common pattern: Person Name.
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > Re- lationship to Subject of Care	The relationship of a participant to a subject of care (pa- tient).	01	participant[part_person]/associatedEntity/associatedPerson/ext:personalRelationship		See Australian Digital Health Agency CDA extension: PersonalRe- lationship.
					This logical data component SHALL NOT be instantiated if the parti- cipant is a healthcare provider. If ext:personalRelationship is instan- tiated the value of Entity Identifier SHALL NOT be a HPI-I.
			participant[part_person]/associatedEntity/associatedPerson/ ext:personalRelationship/@classCode="PRS"		
			participant[part_person]/associatedEntity/associatedPerson/ ext:personalRelationship/ ext:code	NS	
			participant[part_person]/associatedEntity/associatedPerson/ ext:personalRelationship/ ext:asPersonalRelationship		
			participant[part_person]/associatedEntity/associatedPerson/ext:personalRelationship/ ext:asPersonalRelationship/@classCode="PSN"		
			participant[part_person]/associatedEntity/associatedPerson/ext:personalRelationship/ ext:asPersonalRelationship/@determinerCode="INSTANCE"		
			participant[part_person]/associatedEntity/associatedPerson/ext:personalRelationship/ ext:asPersonalRelationship/id		This SHALL hold the same value as ClinicalDocument/recordTarget/patientRole/ id .
			participant[part_person]/associatedEntity/associatedPerson/ext:personalRelationship/ ext:asPersonalRelationship/ administrativeGenderCode/@nullFlavor="NA"		Included for CDA conformance only.
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > EMPLOYMENT DETAIL	A person's occupation and employer.	01	participant[part_person]/associatedEntity/associatedPerson/ <employment></employment>		See common pattern: Employment.
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > PERSON > DEMOGRAPHIC DATA	Additional characteristics of a person that may be useful for identification or other clinical purposes.	00	n/a		This logical data component has no mapping to CDA.
					The cardinality of this component propagates to its children.
			participant[part_person]/associatedEntity/ associatedPerson/ ext:administrativeGenderCode		
			participant[part_person]/associatedEntity/associatedPerson/ext:birthTime		

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments		
CDA Body Level 3 Data Elements	1		Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/section/ (See 4 Administrative Observations)				
PARTICIPANT > PARTICIPANT > ENTITLE-	The entitlement or right of a participant to act in a given	0*	ext:coverage2[part_person]/@typeCode="COVBY"				
MENT	capacity (as defined by Entitlement Type) within a healthcare context.		ext:coverage2[part_person]/ext:entitlement				
			ext:coverage2[part_person]/ext:entitlement/@classCode="COV"				
			ext:coverage2[part_person]/ext:entitlement/@moodCode="EVN"				
		ext:coverage2[part_person]/ext:entitlement/ext:participant[part_person]/@typeCode= "HLD"					
		ext:coverage2[part_person]/ext:entitlement/ ext:participant[part_person]/ext:participantRole/@classCode="ASSIGNED"					
			ext:coverage2[part_person]/ext:entitlement/ext:participant[part_person]/ ext:participantRole/ ext:id		This SHALL hold the same value as participant[part_person]/associ- atedEntity/id where participa- tion/@typeCode="PART".		
PARTICIPANT > PARTICIPANT > ENTITLE- MENT > Entitlement Number	A number or code issued for the purpose of identifying the entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context.	11	ext:coverage2[part_person]/ext:entitlement/ ext:id		See <id> for available attributes.</id>		
PARTICIPANT > PARTICIPANT > ENTITLE- MENT > Entitlement Type	The description of the scope of an entitlement.	11	ext:coverage2[part_person]/ext:entitlement/ext:code	NCTIS: Admin Codes - Entitlement Type	See <code> for available attributes.</code>		
PARTICIPANT > PARTICIPANT > ENTITLE- MENT > Entitlement Validity Duration	The time interval for which an entitlement is valid.	01	ext:coverage2[part_person]/ext:entitlement/ext:effectiveTime		See <time> for available attributes.</time>		
CDA Header Data Elements			Context: /ClinicalDocument/				
PARTICIPANT > PARTICIPANT > Qualifica-	A list of professional certifications, and certificates recog-	01	participant[part_person]/associatedEntity/associatedPerson/ext:asQualifications		See Australian Digital Health		
tions nising havi	nising having passed a course.		participant[part_person]/associatedEntity/associatedPerson/ ext:asQualifications/@classCode="QUAL"		Agency CDA extension: Qualifica- tions.		
			participant[part_person]/associatedEntity/associatedPerson/ ext:asQualifications/ ext:code/originalText	Qualifications is a text field, so the text list is entered in the original- Text field of the code element.			

Example 6.7. PARTICIPANT as a PERSON XML Fragment

```
<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only.
Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid.
While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and
may not be indicative of the expected values in a clinical document.
While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema,
the specification or schema will take precedence. -->
<ClinicalDocument
xmlns="urn:hl7-org:v3"
xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 ....
 >
 <!-- Begin CDA Header -->
 •••
 <!-- Begin PARTICIPANT as a PERSON: example of recording a primary care provider -->
 <participant typeCode="PART">
  <functionCode code="PCP" />
  <associatedEntity classCode="PROV">
  <!-- id is used for system purposes such as matching -->
  <id root="ee13f045-f669-405e-a40b-4fce1ad895c4"/>
  <!-- Role -->
  <code code="253111"
   codeSystem="2.16.840.1.113883.13.62"
   codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1"
   displayName="General Medical Practitioner" />
  <!-- ADDRESS -->
   <addr use="WP">
   <streetAddressLine>55 GP Street</streetAddressLine>
   <city>Healthville</city>
   <state>OLD</state>
   <postalCode>5555</postalCode>
   <additionalLocator>32568931</additionalLocator>
   <country>Australia</country>
   </addr>
   <!-- ELECTRONIC COMMUNICATION DETAIL -->
  <telecom use="WP" value="tel:077777777"/>
  < --- PERSON NAME -->
   <associatedPerson>
   <name>
    <prefix>Dr.</prefix>
    <family>Generalist</family>
   </name>
    <!-- Entity Identifier -->
    <ext:asEntityIdentifier classCode="IDENT">
    <ext:id assigningAuthorityName="HPI-I" root="1.2.36.1.2001.1003.0.8003619900015717" />
     <ext:assigningGeographicArea classCode="PLC">
     <ext:name>National Identifier</ext:name>
     </ext:assigningGeographicArea>
    </ext:asEntityIdentifier>
   <!-- Begin EMPLOYMENT DETAIL -->
   <ext:asEmployment classCode="EMP">
```

<!-- Position In Organisation --> <ext:code> <originalText>General Practitioner</originalText> </ext:code>

<!-- Occupation -->
<ext:jobCode code="253111" codeSystem="2.16.840.1.113883.13.62"
codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006"
displayName="General Medical Practitioner" />

<!-- Employment Type -->
<ext:jobClassCode code="FT" codeSystem="2.16.840.1.113883.5.1059" codeSystemName="HL7:EmployeeJobClass"
displayName="full-time" />

<!-- Begin EMPLOYER ORGANISATION -->
<ext:employerOrganization>

<!-- Department/Unit --> <name>Acme Hospital One</name>

<asOrganizationPartOf> <wholeOrganization>

<!-- Organisation Name --> <name use="ORGB">Acme Hospital Group</name>

<!-- ELECTRONIC COMMUNICATION DETAIL -->
<telecom value="tel:0499999999" use="WP" />

<!-- ADDRESS -->
<addr use="WP">
<addr use="WP">
<addr use="WP">

<streetName>Clinician</streetName>
<<streetName?pe>St</streetNameType>
<city>Healthville</city>
<state>QLD</state>
<postalCode>5555</postalCode>
<additionalLocator>32568931</additionalLocator>
</addr>

<!-- Entity Identifier -->
<ext:asEntityIdentifier classCode="IDENT">
<ext:asEntityIdentifier classCode="HEI-0" root="1.2.36.1.2001.1003.0.8003621566684455" />
<ext:asigningGeographicArea classCode="PLC">
<ext:asigningGeographicArea classCode="PLC">
<ext:asigningGeographicArea classCode="PLC">
<ext:asigningGeographicArea classCode="PLC">
<ext:asigningGeographicArea classCode="PLC">
<ext:asEntityIdentifier</ext:asesigningGeographicArea classCode="PLC">
</ext:asEntityIdentifier<//ext:asigningGeographicArea classCode="PLC">
</ext:asEntityIdentifier<//ext:asesigningGeographicArea classCode="PLC">
</ext:asEntityIdentifier<//ext:asEntityIdentifier<//ext:asEntityIdentifier<//ext:AsesigningGeographicArea classCode="PLC">
</ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE<//ext:AseSIGUE</p>

</wholeOrganization> </asOrganizationPartOf> </ext:employerOrganization> <!-- End EMPLOYER ORGANISATION -->

</ext:asEmployment> <!-- End EMPLOYMENT DETAIL -->

<!-- Qualifications -->
<ext:asQualifications classCode="QUAL">
<ext:code>
<orginalText>M.B.B.S</originalText>
</ext:code>
</ext:asQualifications>

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```
</associatedPerson>
 </associatedEntity>
</participant>
<!-- End PARTICIPANT as a PERSON -->
<!-- End CDA Header -->
<!-- Begin CDA Body -->
<component>
 <structuredBody>
  ...
  <!-- Begin Administrative Observations -->
  <component>
   <section>
   <code code="102.16080" codeSystem="1.2.36.1.2001.1001.101" codeSystemName="NCTIS Data Components" displayName="Administrative Observations"/>
   <title>Administrative Observations</title>
   <!-- narrative block -->
   <text>
    Australian Medicare Prescriber Number
      049960CT
      </text>
   ....
   <!-- Begin PARTICIPANT as a Person ENTITLEMENT -->
   <ext:coverage2 typeCode="COVBY">
    <ext:entitlement classCode="COV" moodCode="EVN">
     <ext:id assigningAuthorityName="Medicare Prescriber number" root="1.2.36.174030967.0.3" extension="049960CT" />
     <ext:code code="10" codeSystem="1.2.36.1.2001.1001.101.104.16047" codeSystemName="NCTIS Entitlement Type Values"
      displayName="Medicare Prescriber Number" />
     <ext:effectiveTime>
      <low value="200501010101+1100" />
      <high value="202501010101+1100" />
     </ext:effectiveTime>
     <ext:participant typeCode="HLD">
      <ext:participantRole classCode="ASSIGNED">
      <!-- Same as the PRIMARY CARE PROVIDER as a Person (participant) id -->
      <ext:id root="eel3f045-f669-405e-a40b-4fcelad895c4" />
      </ext:participantRole>
     </ext:participant>
    </ext:entitlement>
   </ext:coverage2>
   <!-- End PARTICIPANT as a Person ENTITLEMENT -->
   ....
   </section>
  </component>
  <!-- End Administrative Observations -->
  ....
 </structuredBody>
</component>
<!-- End CDA Body -->
</ClinicalDocument>
```

6.1.4.2 PARTICIPANT as an ORGANISATION

CDA R-MIM Representation

Figure 6.11 PARTICIPANT as an ORGANISATION shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The PARTICIPANT data group instantiated as 'ORGANISATION' is related to its context of ClinicalDocument by the participant Participation class. A participant is an organisation in the role of associatedEntity (AssociatedEntity class). The entity playing the role is scopingOrganization (Organization class). The department/unit name is mapped to scopingOrganization.name and the organisation name is mapped to the wholeOrganization (Organization class) which represents a whole-part relationship using the OrganizationPartOf role. The organisation entity identifier is represented by the EntityIdentifier class (Australian Digital Health Agency CDA extension) which is related to the wholeOrganization.



Figure 6.11. PARTICIPANT as an ORGANISATION

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
CDA Header Data Elements			Context: /ClinicalDocument/		
PARTICIPANT	Party involved in, or associated with, the provision of services to the subject of care.	0*	participant[part_org]		
n/a	n/a	11	participant[part_org]/associatedEntity/ id		Optional CDA element. See <id> for available attributes.</id>
PARTICIPANT > Participation Period	The time interval during which the participation in the healthcare event occurred.	00	participant[part_org]/time		
PARTICIPANT > LOCATION OF PARTICIPA- TION	Specifies the geographic site (building, room, etc) where the participation of a healthcare event occurs.	00	See Known Issues.		LOCATION OF PARTICIP- ATION is not currently mapped
PARTICIPANT > Participation Type	The categorisation of the nature of the participant's in- volvement in the healthcare event described by this participation.	11	participant[part_org]/@typeCode		
PARTICIPANT > Role	The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective.	11	participant[part_org]/associatedEntity/code	Role SHALL have a value representing the type of Facility e.g. Hospital, Clinic.	See <code> for avail- able attributes.</code>
			participant[part_org]/associatedEntity/@classCode	HL7:RoleClassAssociat- ive (usually ="PROV")	
PARTICIPANT > PARTICIPANT	Details pertinent to the identification of an individual or organisation or device that has participated in a health- care event/encounter/clinical interaction.	11	participant[part_org]/associatedEntity/ scopingOrganization		
PARTICIPANT > PARTICIPANT > Entity Identifier	A number or code issued for the purpose of identifying a participant within a healthcare context.	0*	participant[part_org]/associatedEntity/scopingOrganization/asOrganizationPartOf/wholeOrganization/ <entity Identifier></entity 		See common pattern: Entity Identifier.
PARTICIPANT > PARTICIPANT > ADDRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	0*	participant[part_org]/associatedEntity/ <address></address>		See common pattern: Address.
PARTICIPANT > PARTICIPANT > ELECTRON- IC COMMUNICATION DETAIL	The electronic communication details of entities.	0*	participant[part_org]/associatedEntity/ <electronic communication="" detail=""></electronic>		See common pattern: Electronic Communica- tion Detail.
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE	Represents a choice to be made at run-time between PERSON, ORGANISATION or DEVICE.	11	n/a	PERSON OR ORGANISA- TION OR DEVICE SHALL be instantiated as an ORGANISATION.	This logical data com- ponent has no map- ping to CDA. The cardinality of this component propagates to its children.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISA- TION	Any organisation of interest to, or involved in, the business of healthcare service provision.	11	n/a		Not mapped directly, encompassed implicitly in parti- cipant[part_org]/asso- ciatedEntity/associ- atedPerson.
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISA- TION > Organisation Name	The name by which an organisation is known or called.	11	participant[part_org]/associatedEntity/scopingOrganization/asOrganizationPartOf/wholeOrganization/name		
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISA- TION > Department/Unit	The name by which a department or unit within a larger organisation is known or called.	01	participant[part_org]/associatedEntity/scopingOrganization/name		
PARTICIPANT > PARTICIPANT > PERSON OR ORGANISATION OR DEVICE > ORGANISA- TION > Organisation Name Usage	The classification that enables differentiation between recorded names for an organisation or service location.	01	participant[part_org]/associatedEntity/scopingOrganization/asOrganizationPartOf/wholeOrganization/name/@use	AS 4846-2006: Health Care Provider Organisa- tion Name Usage	
CDA Body Level 3 Data Elements			Context: /ClinicalDocument/component/structuredBody/component[admin_obs]/section/ (See 4 Administrative	Observations)	
PARTICIPANT > PARTICIPANT > ENTITLE- MENT	The entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context.	00	See Known Issues.		Prohibition of ENTITLE- MENT is not currently mapped.
CDA Header Data Elements			Context: /ClinicalDocument/		
PARTICIPANT > PARTICIPANT > Qualifica- tions	A list of professional certifications, and certificates recog- nising having passed a course.	00	n/a		This logical data com- ponent has no map- ping to CDA.

Example 6.8. PARTICIPANT as an ORGANISATION XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> ••• <!-- Begin PARTICIPANT as an ORGANISATION: example of recording a patient's GP clinic --> <participant typeCode="PART"> <functionCode code="PCP"/> <associatedEntity classCode="PROV"> <!-- id is used for system purposes such as matching --> <id root="ee13f045-f669-405e-a40b-4fce1ad895c4"/> <!-- Role --> <code code="408443003" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="General medical practice"/> <!-- ADDRESS --> <addr use="WP"> <streetAddressLine>55 GP Street</streetAddressLine> <city>Healthville</city> <state>OLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> <country>Australia</country> </addr> <!-- ELECTRONIC COMMUNICATION DETAIL --> <telecom use="WP" value="tel:07888888888"/> <scopingOrganization> <!-- Department/Unit Name --> <name>Day Surgery</name> <asOrganizationPartOf> <wholeOrganization> <!-- Organisation Name --> <name use="ORGB">Logan Hospital</name> <!-- Entity Identifier --> <ext:asEntityIdentifier classCode="IDENT"> <ext:id assigningAuthorityName="HPI-O" root="1.2.36.1.2001.1003.0.8003621566684455" /> <ext:assigningGeographicArea classCode="PLC"> <ext:name>National Identifier</ext:name> </ext:assigningGeographicArea> </ext:asEntityIdentifier>

</wholeOrganization> </asOrganizationPartOf> </scopingOrganization> </asSociatedEntity> </participant> <!-- End PARTICIPANT as an ORGANISATION -->

<!-- End CDA Header -->

</ClinicalDocument>

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7 Content Data Specification - CDA Mapping

7.1 CLINICAL DOCUMENT

Identification

Name	CLINICAL DOCUMENT
Metadata Type	Structured Document
Identifier	SD-16888

Relationships

Children

Data Type	Name	Occurrence
	SECTION	11

CDA R-MIM Representation

Figure 7.1 CLINICAL DOCUMENT shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.

CLINICAL DOCUMENT is composed of a ClinicalDocument class, which is the entry point into the CDA R-MIM. The ClinicalDocument is associated with the bodyChoice through the component relationship. The StructuredBody class represents a CDA document body that is comprised of one or more document sections.



Figure 7.1. CLINICAL DOCUMENT

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments	
CDA Header Data Elements			Context: /			
CLINICAL DOCUMENT	Clinical document containing structured context inform- ation, such as author, and containing clinical content as encapsulated data or as section narrative.	11	ClinicalDocument			
CDA Body Level 2 Data Elements	CDA Body Level 2 Data Elements					
CLINICAL DOCUMENT (Body)	See above.	11	ClinicalDocument/component/structuredBody			

Example 7.1. CLINICAL DOCUMENT Body XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Header --> ... <!-- End CDA Header --> <!-- Begin CDA Body --> <component> <structuredBody> <!-- Begin SECTION --> <component> <section> <templateId root="1.2.36.1.2001.1001.101.101.16886" /> </section> </component> <!-- End SECTION --> </structuredBody> </component> <!-- End CDA Body --> </ClinicalDocument>

7.1.1 SECTION

Identification

Name	SECTION
Metadata Type	Section
Identifier	S-16886

Relationships

Parent

Data Type	Name	Occurrences (child within parent)
	CLINICAL DOCUMENT	11

CDA R-MIM Representation

Figure 7.2 SECTION shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.

The SECTION is composed of a Section class related to its context ClinicalDocument. StructuredBody by a component. Encapsulated Data Item is represented by an ObservationMedia class related to the containing Section class by an entry relationship.



Figure 7.2. SECTION

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments	
CDA Body Level 1 Data Elements			Context: /ClinicalDocument/component/structuredBody/			
SECTION	Section with minimal or no structured content.	11	component[clocd]/section		This logical data compon- ent is applicable to Level 1A and Level 1B.	
			component[clocd]/section/templateld/@root="1.2.36.1.2001.1001.101.101.16886"			
			component[clocd]/section/id		Optional CDA element.	
					See <id> for available at- tributes.</id>	
			component[clocd]/section/title			
			component[clocd]/section/ text		See Appendix A, CDA Narratives.	
			component[clocd]/section/text/ renderMultiMedia		Optional CDA element that SHALL be present if observationMedia is in- stantiated.	
					The renderMultiMedia element SHALL reference the attachment contained in the observationMedia entry.	
SECTION > ENCAPSULATED DATA	Container for an item of encapsulated data.	0*	component[clocd]/section/ entry		This logical data compon- ent is only applicable to Level 1A.	
			component[clocd]/section/entry/templateld/@root="1.2.36.1.2001.1001.101.102.16883"			

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments									
SECTION > ENCAPSULATED DATA > Encapsulated Data Item	Item of encapsulated data.	11	component[clocd]/section/entry/observationMedia		This logical data compon- ent is only applicable to Level 1A.									
			component[clocd]/section/entry/observationMedia/@classCode="OBS"											
			component[clocd]/section/entry/observationMedia/@moodCode="EVN"											
				component[clocd]/section/entry/observationMedia/@ID		Optional, recommended element that enables ref- erencing of the attach- ment in the narrative block.								
			component[clocd]/section/entry/observationMedia/id		Optional CDA element.									
					See <id> for available at- tributes.</id>									
			component[clocd]/section/entry/observationMedia/value											
			component[clocd]/section/entry/observationMedia/value/@mediaType		The MIME types to be supported SHALL be as mentioned in applicable common conformance profile and specific clinical document conformance profile.									
			component[clocd]/section/entry/observationMedia/value/@integrityCheck											
												component[clocd]/section/entry/observationMedia/value/reference		reference/@nullFlavor SHALL NOT be present.
			component[clocd]/section/entry/observationMedia/value/reference/@value											

Example 7.2. SECTION XML Fragment

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <ClinicalDocument xmlns="urn:hl7-org:v3" xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0" > <!-- Begin CDA Body --> <component> <structuredBody> <!-- Begin SECTION --> <component> <section> <templateId root="1.2.36.1.2001.1001.101.101.16886"/> <id root="ba2fcd7a-e4b2-43ab-b5f6-33aeb7e38552" /> <title>Referral to Bob</title> <!-- narrative block --> <!-- If the entire content is expressed as a PDF attachment, DO NOT duplicate the content as narrative XML . --> <!-- If narrative text has been provided, the attachments shall be the contents that are part of the clinical content. Ex: XRay image files. --> <text> <renderMultiMedia referencedObject="MM1"/> </text> <!-- Begin ENCAPSULATED DATA--> <entry> <templateId root="1.2.36.1.2001.1001.101.102.16883"/> <!-- Begin Encapsulated Data Item --> <observationMedia ID="MM1" classCode="OBS" moodCode="EVN"> <!-- Encapsulated Data Instance Identifier. Unique for each instance of ObservationMedia --> <id root="57213b20-71ae-11e2-bcfd-0800200c9a66" /> $<\!\!\!$ -- Each element shall only reference to the local attachments of the same CDA package. The attachment shall be any of the approved file types (e.g. Adobe PDF format). Multiple attachments shall be different formats of the same document --> <value mediaType="application/pdf" integrityCheck="IiZNlyLY4gyewfICeWhFe2NcDDw="> <reference value="Referral_0101.pdf" /> </value> </observationMedia> <!-- End Encapsulated Data Item --> </entry> <!-- End ENCAPSULATED DATA --> </section> </component> <!-- End SECTION -->

</structuredBody> </component> <!-- End CDA Body --> </ClinicalDocument>

8 Common Patterns

8.1 code

The <code> element pattern refines the kind of act being recorded. It is of data type CD CWE (Concept Descriptor, Coded With Extensibility). It may have:

- a null attribute (*nullFlavor*)
- originalText
- code and codeSystem
- qualifier (CD)
- translation (CD)
- any combination of the above.

A *displayName* is highly recommended.

Where used, the code attribute SHALL contain a code from the relevant vocabulary.

Where used, the *codeSystem* attribute **SHALL** contain the OID for the relevant vocabulary. Values for coding systems can be obtained from the HL7 OID registry accessible from the HL7 home web page at <u>www.hl7.org</u>¹.

Where used, the *displayName* attribute **SHALL** contain a human-readable description of the code value that is provided by the code system; *displayName* is a case insensitive value except where explicitly stated otherwise by the code system. A preferred interface term for display that is not a member of the description set supplied by the code system **SHALL NOT** be used to populate the *displayName* attribute.

The codeSystemName MAY be present and, where used, SHALL contain a human-readable name for the coding system.

Where used, the *originalText* element **SHALL** be used to carry the full text associated with this code as selected by, typed by or displayed to the author of this statement including the contents of the *qualifier* if present.

¹ http://www.hl7.org

Where used, the *qualifier* element **SHALL** carry a code from the same code system as the code; for example if the main concept code is from SNOMED CT the *qualifier* also has to be taken from SNOMED CT as the use of a different code system for a *qualifier* is not allowed. The use of the *qualifier* element is governed by the code system used and cannot be used with code systems that do not provide for qualifiers (e.g. pre-coordinated systems).

Codes can be obtained from a variety of sources. Additional vocabularies are also available from the HL7 Version 3 Vocabulary tables, available to HL7 members through the HL7 web site. In some cases, the vocabularies have been specified; in others, a particular code has been fixed or there is no vocabulary specified. For guidance on coding common clinical concepts in CDA documents see *Representing Coding in CDA Documents Implementation Guidance [NEHT2011bv]*.

Where a code is used from a different code system to that specified, or where the code lies outside the reference set specified, or where a code system or reference set is not specified, the code value **SHALL** be consistent with the meaning of the associated data component from the structured content specification.

If a vocabulary is specified in this implementation guide and no suitable code can be found, the *originalText* element **SHALL** be used to carry the full text as selected by, typed by or displayed to the author of this statement.

If a vocabulary is specified in this implementation guide and it is not possible to use this vocabulary, but an alternate vocabulary is in use, the *originalText* element **SHALL** be used to carry the full text as selected by, typed by or displayed to the author of this statement. The *code* element **SHALL** be used to carry the relevant information from the alternate vocabulary and the alternate vocabulary **SHALL** be registered with HL7 and allocated an appropriate OID.

If an alternate vocabulary is in use and a translation into the specified code system is available, the *originalText* element **SHALL** be used to carry the full text as selected by, typed by or displayed to the author of this statement. The *code* element **SHALL** be used to carry the relevant information from the alternate vocabulary and the alternate vocabulary **SHALL** be registered with HL7 and allocated an appropriate OID. The *translation* element **SHALL** be used to indicate the translation code from the specified vocabulary.

Example 8.1. code

```
<!-- Specified code system in use -->
<code
  code="271807003"
  codeSystem="2.16.840.1.113883.6.96"
  codeSystemName="SNOMED CT"
  codeSystemVersion="20101130"
  displayName="Skin rash" />
<!-- Specified code system in use with a qualifier -->
<code
   code="23986001"
   codeSystem="2.16.840.1.113883.6.96"
   codeSystemName="SNOMED_CT"
   displayName="Glaucoma" >
   <originalText>Glaucoma, left</originalText>
    <qualifier>
       <name
           code="272741003"
           codeSystem="2.16.840.1.3883.6.96"
            codeSystemName="SNOMED CT"
           displayName="Laterality" />
        <value
            code="7771000"
```

```
codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT"
          displayName="Left"
          xsi:type="CD" />
   </qualifier>
</code>
<code
  code="J45.9"
  codeSystem="2.16.840.1.113883.6.135"
  codeSystemName="icd10am"
  displayName="Asthma, unspecified">
  <originalText>Asthma</originalText>
  <translation
    code="195967001"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Asthma"/>
</code>
<!-- Alternate code system in use and no translation into the specified code system is available -->
<code
  code="J45.9"
  codeSystem="2.16.840.1.113883.6.135"
  codeSystemName="icd10am"
  displayName="Asthma, unspecified">
  <originalText>Asthma</originalText>
</code>
```

<!-- No suitable code can be found or there is no code system in use --> $<\!\!code$

<originalText>Asthma</originalText>
</code>

8.2 id

The <id> element pattern is of data type II (Instance Identifier). The II data type may have:

- a null attribute (*nullFlavor*)
- a root
- a root and an extension
- a root and an extension and an assigningAuthorityName
- a root and an assigningAuthorityName
- a root and an assigningAuthorityName and a displayable
- a root and an extension and a displayable
- a root and an extension and an assigningAuthorityName and a displayable
- a *root* and a *displayable*

The root attribute is **REQUIRED** and is a unique identifier that guarantees the global uniqueness of the instance identifier. The root alone **MAY** be the entire instance identifier. The root attribute **SHALL** be a UUID or OID.

The extension attribute MAY be present, and is a character string as a unique identifier within the scope of the identifier root.

In the case of Entity Identifier, assigningAuthorityName is **RECOMMENDED**.

Identifiers appear in this implementation guide for two different reasons. The first is that the identifier has been identified in the business requirements as relevant to the business process. These identifiers are documented in the SCSs, which make clear the meaning of this identifier.

In addition, the implementation makes clear that identifiers may also be found on many other parts of the CDA content model. These identifiers are allowed to facilitate record matching across multiple versions of related documents, so that the same record can consistently be identified, in spite of variations in the information as the record passes through time or between systems. These identifiers have no meaning in the business specification. If senders provide one of these identifiers, it **SHALL** always be the same identifier in all versions of the record, and it **SHALL** be globally unique per the rules of the II data type.

Example 8.2. id

<id root="2.16.840.1.113883.19" extension="123A45" />

<ext:id assigningAuthorityName="HPI-0" root="1.2.36.1.2001.1003.0.8003621566684455" />

8.3 time

When a time value is supplied it SHALL include hours and minutes.

When a time value is supplied it MAY include seconds and fractions of seconds.

When a time value is supplied it **SHALL** include a time zone.

The <time> element pattern is of data type TS (Point in Time) and can also be an interval between two times (IVL_TS), representing a period of time. Both forms can either have a nullFlavor attribute or child components following allowed patterns.

A simple timestamp (point in time) will only contain a value attribute containing the time value, expressed as a series of digits as long as required or as available.

Example 8.3. Simple timestamp

<time value="20091030" />

This represents "October 30, 2009" to calendar day precision. In cases where the containing element is defined in the CDA schema as "ANY" data type, it is useful to provide an xsi:type attribute, set to the value "TS".

The period of time pattern is defined in terms of one or both of its lowest and highest values. The low and high elements are instances of the timestamp pattern described above. More complex time period concepts can be expressed by combining a high, low, or centre element with a width element.

Example 8.4. Low time

<period> <low value="20091030" /> </period>

This represents "a period after October 30, 2009". In cases where the containing element is defined in the CDA schema as "ANY" data type, it is useful to provide an xsi:type attribute, set to the value "IVL_TS", as in the next example.

Example 8.5. Interval timestamp 1

<period xsi:type="IVL_TS">
 <high value="200910301030+1000" />
</period>

This represents "a period before 10:30 a.m. UTC+10, October 30, 2009". A discretionary xsi:type attribute has been provided to explicitly cast the pattern to "IVL_TS".

Example 8.6. Interval timestamp 2

<period xsi:type="IVL_TS">
 <low value="2007" />
 <high value="2009" />
</period>

This represents "the calendar years between 2007 and 2009". The low element **SHALL** precede the high element. As per the previous example, a discretionary xsi:type attribute has been provided to explicitly cast the pattern to "IVL_TS".

Example 8.7. Width time

This expresses "two weeks before October 17th, 2009". A low value can be derived from this.

8.4 Entity Identifier

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments			
CDA Data Elements	CDA Data Elements							
for the purp ing a partici	A number or code issued for the purpose of identify- ing a participant within a healthcare context.	The cardinal- ity of the group comes from the link- ing parent and the car- dinality of the children data elements comes from the R-MIM diagram.	ext:asEntityIdentifier		See Australian Digital Health Agency CDA extension: EntityIden- tifier.			
			ext:asEntityIdentifier/@classCode="IDENT"					
			ext:asEntityIdentifier/ ext:id					
			ext:asEntityIdentifier/ext:id/ @root	Attribute @root SHALL be used, SHALL be an OID and SHALL NOT be a UUID. Attribute @root SHALL be a globally unique object identifier (i.e. OID) that identifies the combination of geographic area, issuer and type. If no such OID exists, it SHALL be defined before any identifiers can be created.				
			ext:asEntityIdentifier/ext:id/@extension	Attribute @extension MAY be used and, if it is used, SHALL be a unique identifier within the scope of the root that is populated directly from the designation.				
			ext:asEntityIdentifier/ext:id/@assigningAuthorityName	Attribute @assigningAuthorityName SHOULD be used and, if it is used, SHALL be a human-readable name for the namespace represented in the root that is populated with the issuer, or identifier type, or a concatenation of both as appropriate. This SHOULD NOT be used for machine readability purposes.				
			ext:asEntityIdentifier/ ext:code		See <code> for avail- able attributes.</code>			
			ext:asEntityIdentifier/ext:assigningGeographicArea					
			ext:asEntityIdentifier/ext:assigningGeographicArea/@classCode="PLC"					
			ext:asEntityIdentifier/ext:assigningGeographicArea/ext:name	Element ext:name MAY be used and, if it is used, SHALL be the range and extent that the identifier applies to the object with which it is associated that is populated directly from the geographic area. This SHOULD NOT be used for machine readability purposes.				
				Element ext:name SHALL be populated with one of the following values sourced from AS 5017 (2006) – Health Care Client Identification [SA2006b]: "Local Client (Unit Record) Identifier", "Area/Region/Dis- trict Identifier", "State or Territory Identifier", "National Identifier".				

Example 8.8. Entity Identifier

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <!-- person --> <xs:asEntityIdentifier classCode="IDENT"> <xs:id root="1.2.36.1.2001.1003.0.8003608833357361" assigningAuthorityName="IHI" /> <xs:assigningGeographicArea classCode="PLC"> <xs:name>National Identifier</xs:name> </xs:assigningGeographicArea> </xs:asEntityIdentifier> <xs:asEntityIdentifier classCode="IDENT"> <xs:id root="1.2.36.1.2001.1005.29.8003621566684455" extension="542181" assigningAuthorityName="Croydon GP Centre" /> <xs:code code="MR" codeSystem="2.16.840.1.113883.12.203" codeSystemName="Identifier Type (HL7)" /> </xs:asEntityIdentifier> <!-- organisation --> <ext:asEntityIdentifier classCode="IDENT"> <ext:id assigningAuthorityName="HPI-0" root="1.2.36.1.2001.1003.0.8003621566684455" /> <ext:assigningGeographicArea classCode="PLC"> <ext:name>National Identifier</ext:name> </ext:assigningGeographicArea> </ext:asEntityIdentifier>

8.5 Person Name

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments	
CDA Data Elements						
PERSON NAME	The appellation by which an individual may be identified separately from any other within a social context.	Cardinality comes from linking parent.	name			
PERSON NAME > Name Title	An honorific form of address commencing a name.	0*	name/ prefix			
PERSON NAME > Family Name	That part of a name a person usually has in common with some other members of his/her family, as distinguished from his/her given names.	11	name/ family			
PERSON NAME > Given Name	The person's identifying names within the family group or by which the person is uniquely socially identified.	0*	name/ given			
PERSON NAME > Name Suffix	The additional term used following a person's name to identify that person.	0*	name/ suffix			
PERSON NAME > Preferred Name Indicator	A flag to indicate that this is the name a person has selected for use.	01	name/@use	A code for representing "preferred name" has been requested from HL7 International but is not currently available.	If both Preferred Name Indicator and Person Name Usage have been provided, the use attribute SHALL in- clude them as space separated list of codes.	
PERSON NAME > Person Name Usage	The classification that enables differentiation between recorded names for a person.	01	name/ @use	AS 5017-2006: Health Care Client Name Usage	If both Preferred Name Indicator and Person Name Usage have been provided, the use attribute SHALL in- clude them as space separated list of codes.	

Example 8.9. Person Name

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only.

Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document.

While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. -->

8.6 Address

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments	
CDA Data Elements						
ADDRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	Cardinality comes from linking parent.	addr		In an event where the address is 'Unknown' or 'Masked / Not to be disclosed for privacy reason', the following conditions SHOULD be applied. The nullFlavor = "UNK" SHOULD be permitted if the value of address is not known and the value of 'No Fixed Address Indicator' is false. The nullFlavor = "MSK" SHOULD be permitted if the value of address is masked and the value of 'No Fixed Address Indicator' is false. The nullFlavor = "NA" SHOULD be permitted if value of 'No Fixed Address Indicator' is true. (This is the same as the current CDA IG constraint). The value of the <addr> data group SHOULD be populated in all other circumstances.</addr>	
ADDRESS > No Fixed Address Indicator	A flag to indicate whether or not the participant has no fixed address.	11	addr/@nullFlavor	If true, nullFlavor="NA".		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS	Represents a choice to be made at run-time between an AUSTRALIAN ADDRESS and an INTERNATIONAL ADDRESS.	11	n/a		This logical data component has no mapping to CDA. The cardinality of this component propagates to its children.	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > INTERNATIONAL ADDRESS	The description of a non-Australian location where an en- tity is located or can be otherwise reached or found.	01	n/a		This logical data component has no mapping to CDA. The cardinality of this component propagates to its children.	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > INTERNATIONAL ADDRESS > International Address Line	A composite of address details comprising a low level geographical/physical description of a location that, used in conjunction with the other high level address components, i.e. international state/province, international post-code and country, forms a complete geographic/physical address.	0*	addr/ streetAddressLine			
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > INTERNATIONAL ADDRESS > International State/Province	The designation applied to an internal, political or geo- graphic division of a country other than Australia that is officially recognised by that country.	01	addr/ state			

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > INTERNATIONAL ADDRESS > International Postcode	The alphanumeric descriptor for a postal delivery area (as defined by the postal service of a country other than Australia) aligned with locality, suburb or place for an address.	01	addr/ postalCode		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > INTERNATIONAL ADDRESS > Country	The country component of the address.	01	addr/ country	Australia Bureau of Statistics, Standard Australian Classification of Countries (SACC) Cat. No. 1269 [ABS2008]	Use the name, not the numbered code.
ADDRESS > AUSTRALIAN OR INTERNA-	The description of an Australian location where an entity	01	n/a		This logical data component has no mapping to CDA.
TIONAL ADDRESS > AUSTRALIAN AD- DRESS	is located or can be otherwise reached or found.				The cardinality of this component propagates to its children.
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > Unstructured Australian Ad- dress Line	A composite of one or more low level standard address components describing a geographical/physical location that, used in conjunction with the other high level address components, e.g. Australian suburb/town/locality name, Australian postcode and Australian State/Territory, forms a complete geographical/physical address.	0*	addr/streetAddressLine		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN ADDRESS LINE	The standard low level address components describing a geographical/physical location that, used in conjunction with the other high level address components, i.e. Australian suburb/ town/locality name, Australian postcode and Australian State/Territory, form a complete geographical/physical address.	01	n/a		This logical data component has no mapping to CDA. The cardinality of this component propagates to its children.
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Unit Type	The specification of the type of a separately identifiable portion within a building/complex, marina etc. to clearly distinguish it from another.	01	addr/ unitType	AS 5017 (2006) - Healthcare Client Identification: Australian Unit Type [SA2006a] AS 4846 (2006) - Healthcare Provider Identification: Australian Unit Type [SA2006b]	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Unit Number	The specification of the number or identifier of a build- ing/complex, marina etc. to clearly distinguish it from an- other.	01	addr/unitID		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Address Site Name	The full name used to identify the physical building or property as part of its location.	01	addr/ additionalLocator		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Level Type	Descriptor used to classify the type of floor or level of a multistorey building/complex.	01	addr/ additionalLocator	AS 5017 (2006) - Healthcare Client Identification: Australian Level Type [SA2006a] AS 4846 (2006) - Healthcare Provider Identification: Australian Level Type [SA2006b]	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Level Number	Descriptor used to identify the floor or level of a multi- storey building/complex.	01	addr/ additionalLocator		

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Street Number	The numeric or alphanumeric reference number of a house or property that is unique within a street name.	01	addr/ houseNumber		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Lot Number	The Australian Lot reference allocated to an address in the absence of street numbering.	01	addr/ additionalLocator	The word "Lot" SHOULD precede the lot number and be separated by a space.	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Street Name	The name that identifies a public thoroughfare and differ- entiates it from others in the same suburb/town/locality.	01	addr/streetName		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Street Type	A code that identifies the type of public thoroughfare.	01	addr/streetNameType	AS 5017 (2006) - Healthcare Client Identification: Australian Street Type Code [SA2006a] AS 4846 (2006) - Healthcare Provider Identification: Australian Street Type Code [SA2006b]	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Street Suffix	Term used to qualify Australian Street Name used for directional references.	01	addr/ direction	AS 5017 (2006) - Healthcare Client Identification: Australian Street Suffix [SA2006a] AS 4846 (2006) - Healthcare Provider Identification: Australian Street Suffix [SA2006b]	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Postal Delivery Type	Identification for the channel of postal delivery.	01	addr/ deliveryAddressLine	AS 5017 (2006) - Healthcare Client Identification: Australian Postal Delivery Type Code [SA2006a] AS 4846 (2006) - Healthcare Provider Identification: Australian Postal Delivery Type Code [SA2006b]	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > STRUCTURED AUSTRALIAN AD- DRESS LINE > Australian Postal Delivery Number	Identification number for the channel of postal delivery.	01	addr/ deliveryAddressLine		
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > Australian Suburb/Town/Loc- ality	The full name of the general locality contained within the specific address.	01	addr/ city	Values in this data element SHOULD comply with descriptions in the Australia Post Postcode File (see <u>www.auspost.com.au/postcodes</u>).	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > Australian State/Territory	The identifier of the Australian state or territory.	01	addr/ state	AS 5017-2006 Australian State/Territory Identifier - Postal	
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > Australian Postcode	The numeric descriptor for a postal delivery area (as defined by Australia Post), aligned with locality, suburb or place for the address.	01	addr/ postalCode	Values in this data element SHOULD comply with descriptions in the Australia Post Postcode File (see <u>www.auspost.com.au/postcodes</u>).	
SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
--	--	------	--------------------------------	--	--------------------------------
ADDRESS > AUSTRALIAN OR INTERNA- TIONAL ADDRESS > AUSTRALIAN AD- DRESS > Australian Delivery Point Identifier	A unique number assigned to a postal delivery point as recorded on the Australia Post Postal Address File.	01	addr/ additionalLocator		
ADDRESS > Address Purpose	The purpose for which the address is being used by the entity.	11	addr/@use	AS 5017-2006: Health Care Client Identifier Address Purpose	Space separated list of codes.

Example 8.10. Address

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. --> <!-- No Fixed Address --> <addr nullFlavor="NA" /> <!-- Australian home address (unstructured) --> <addr use="H"> <streetAddressLine>1 Clinician Street</streetAddressLine> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> </addr> <!-- Australian business address (structured) --> <addr use="WP"> <houseNumber>1</houseNumber> <streetName>Clinician</streetName> <streetNameType>St</streetNameType> <city>Healthville</city> <state>QLD</state> <postalCode>5555</postalCode> <additionalLocator>32568931</additionalLocator> </addr> <!-- International postal address --> <addr use="PST"> <streetAddressLine>51 Clinician Bay</streetAddressLine> <city>Healthville</city> <state>Manitoba</state> <postalCode>R3T 3C6</postalCode> <country>Canada</country> </addr>

8.7 Electronic Communication Detail

CDA Mapping

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments				
CDA Data Elements	DA Data Elements								
ELECTRONIC COMMUNICATION DETAIL	The electronic communication details of entities.	Cardinality comes from linking parent.	telecom						
ELECTRONIC COMMUNICATION DETAIL > Electronic Communication Medium	A code representing a type of communication mechan- ism.	11	telecom/ @value	AS 5017-2006: Health Care Client Electronic Communication Medium > HL7:URLS- cheme	Makes up part of the value attribute as ' tel :phone num- ber', ' mailto :email address', ' http: URL', etc.				
ELECTRONIC COMMUNICATION DETAIL > Electronic Communication Usage Code	The manner of use that is applied to an electronic com- munication medium.	01	telecom/ @use	HL7: TelecommunicationAddressUse > HL7:TelecommunicationAddressUse	Space separated list of codes. The section AS 5017-2006: Health Care Client Electronic Communication Usage Code explains how to map AS 5017-2006 to HL7 Telecom- municationAddressUse (HL7 TAU) code.				
ELECTRONIC COMMUNICATION DETAIL > Electronic Communication Address	A unique combination of characters used as input to electronic telecommunication equipment for the purpose of contacting an entity.	11	telecom/ @value		Makes up part of the value attribute as 'tel: phone num- ber ', 'mailto: email address ', http: URL ', etc.				

Example 8.11. Electronic Communication Detail

<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only. Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid. While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and may not be indicative of the expected values in a clinical document. While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema, the specification or schema will take precedence. -->

<!-- home telephone number --> <telecom value="tel:0499999999" use="H" />

<!-- pager --> <telecom value="tel:0499999999" use="PG" />

<!-- home email address --> <telecom value="mailto:clinicial@clinician.com" use="H" />

8.8 Employment

CDA Mapping



Note

NS = In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the <u>HL7 code set registration procedure</u>² with an appropriate object identifier (OID), and **SHALL** be publicly available.

When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments			
CDA Data Elements								
EMPLOYMENT DETAIL	A person's occupation and employer.	Cardinal- ity comes from linking parent.	n/a		This logical data com- ponent has no map- ping to CDA.			
EMPLOYMENT DETAIL > EMPLOYER OR-	The organisation that the individual is working for in re-		ext:asEmployment/ext:employerOrganization		There is a known issue			
GANISATION	spect to the role they are playing in the nominated participation.		ext:asEmployment/@classCode="EMP"		in the Participation Data Specification [DH2017a] for this lo- gical data component's cardinality. Furthermore the cor- responding CDA ele- ments ext:asEmploy- ment and ext:employ- erOrganization do not allow the cardinality to be multiple. The cardin- ality range SHALL be interpreted as '11'.			
EMPLOYMENT DETAIL > EMPLOYER ORGAN- ISATION > Entity Identifier	A number or code issued for the purpose of identifying a participant within a healthcare context.	0*	ext:asEmployment/ext:employerOrganization/asOrganizationPartOf/wholeOrganization/ <entity identifier=""></entity>		See common pattern: Entity Identifier.			

² http://www.hl7.org/oid/index.cfm?ref=footer

SCS Data Component	Data Component Definition	Card	CDA Schema Data Element	Vocab	Comments
EMPLOYMENT DETAIL > EMPLOYER ORGAN- ISATION > ADDRESS	The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity.	0*	ext:asEmployment/ext:employerOrganization/asOrganizationPartOf/wholeOrganization/ <address></address>		See common pattern: Address.
EMPLOYMENT DETAIL > EMPLOYER ORGAN- ISATION > ELECTRONIC COMMUNICATION DETAIL	The electronic communication details of entities.	0*	ext:asEmployment/ext:employerOrganization/asOrganizationPartOf/wholeOrganization/ <electronic Communication Detail></electronic 		See common pattern: Electronic Communica- tion Detail.
EMPLOYMENT DETAIL > EMPLOYER ORGAN- ISATION > ORGANISATION	Any organisation of interest to, or involved in, the business of healthcare service provision.	11	n/a		Not mapped directly, encompassed implicitly in assignedAu- thor/ext:asEmploy- ment/employerOrgan- ization.
EMPLOYMENT DETAIL > EMPLOYER ORGAN- ISATION > ORGANISATION > Organisation Name	The name by which an organisation is known or called.	11	ext:asEmployment/ext:employerOrganization/asOrganizationPartOf/wholeOrganization/name		
EMPLOYMENT DETAIL > EMPLOYER ORGAN- ISATION > ORGANISATION > Depart- ment/Unit	The name by which a department or unit within a larger organisation is known or called.	01	ext:asEmployment/ext:employerOrganization/name		
EMPLOYMENT DETAIL > EMPLOYER ORGAN- ISATION > ORGANISATION > Organisation Name Usage	The classification that enables differentiation between recorded names for an organisation or service location.	01	ext:asEmployment/ext:employerOrganization/asOrganizationPartOf/wholeOrganization/name/@use	AS 4846-2006: Health Care Provider Organisa- tion Name Usage	
EMPLOYMENT DETAIL > Employment Type	The basis on which the person is employed by the employer organisation.	01	ext:asEmployment/ext:jobClassCode	NS	
EMPLOYMENT DETAIL > Occupation	A descriptor of the class of job based on similarities in the tasks undertaken.	0*	ext:asEmployment/ ext:jobCode	1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occu- pations, First Edition, Revision 1 [ABS2009]	The corresponding CDA element ext:job- Code does not allow the cardinality to be '0*'/multiple. The cardinality SHALL be interpreted as '01' in- stead of '0*'.
EMPLOYMENT DETAIL > Position In Organ- isation	A descriptor of the job or the job role based on the management hierarchy of the organisation.	01	ext:asEmployment/ ext:code	NS	

Example 8.12. Employment

```
<!-- This XML fragment is provided to demonstrate an example instance of each structured element in the CDA Mapping table. It is illustrative only.
Logical model constraints on allowed combinations of child components are ignored in order to provide coverage of structured elements. This fragment cannot be treated as clinically valid.
While the values in the fragment are conformant with the CDA Mapping table they are typically exaggerated to highlight the semantic meaning of the structured elements and
may not be indicative of the expected values in a clinical document.
While every effort has been taken to ensure that the examples are consistent with the message specification, where there are conflicts with the written message specification or schema,
the specification or schema will take precedence. -->
<!-- Begin EMPLOYMENT DETAIL -->
<ext:asEmployment classCode="EMP">
   <!-- Position In Organisation -->
   <ext:code>
       <originalText>Chief Oncologist</originalText>
    </ext:code>
   <!-- Occupation -->
   <ext:jobCode code="253314" codeSystem="2.16.840.1.113883.13.62"</pre>
       codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1"
       displayName="Medical Oncologist"/>"/>
   <!-- Employment Type -->
   <ext:jobClassCode code="FT" codeSystem="2.16.840.1.113883.5.1059" codeSystemName="HL7:EmployeeJobClass" displayName="full-time"/>
   <!-- Begin EMPLOYER ORGANISATION -->
   <ext:employerOrganization>
       <!-- Department/Unit -->
       <name>Oncology Ward</name>
       <asOrganizationPartOf>
           <wholeOrganization>
               <!-- Organisation Name -->
               <name use="ORGB">Acme Hospital</name>
               <!-- ELECTRONIC COMMUNICATION DETAIL -->
               <telecom value="tel:0499999999" use="WP" />
               <!-- ADDRESS -->
               <addr use="WP">
                   <houseNumber>1</houseNumber>
                   <streetName>Clinician</streetName>
                   <streetNameType>St</streetNameType>
                   <city>Healthville</city>
                   <state>QLD</state>
                   <postalCode>5555</postalCode>
                    <additionalLocator>32568931</additionalLocator>
                </addr>
                <!-- Entity Identifier -->
               <ext:asEntityIdentifier classCode="IDENT">
                   <ext:id assigningAuthorityName="HPI-0" root="1.2.36.1.2001.1003.0.8003621566684455"/>
                    <ext:assigningGeographicArea classCode="PLC">
                       <ext:name>National Identifier</ext:name>
                    </ext:assigningGeographicArea>
                </ext:asEntityIdentifier>
           </wholeOrganization>
       </asOrganizationPartOf>
       <!-- End EMPLOYER ORGANISATION -->
```

</ext:employerOrganization>
</ext:asEmployment>
<!-- End EMPLOYMENT DETAIL -->

9 Australian Digital Health Agency CDA Extensions

As part of the CDA, standard extensions are allowed as follows:

Locally-defined markup may be used when local semantics have no corresponding representation in the CDA specification. CDA seeks to standardize the highest level of shared meaning while providing a clean and standard mechanism for tagging meaning that is not shared. In order to support local extensibility requirements, it is permitted to include additional XML elements and attributes that are not included in the CDA schema. These extensions should not change the meaning of any of the standard data items, and receivers must be able to safely ignore these elements. Document recipients must be able to faithfully render the CDA document while ignoring extensions.

Extensions may be included in the instance in a namespace other than the HL7v3 namespace, but must not be included within an element of type ED (e.g., <text> within <procedure>) since the contents of an ED datatype within the conformant document may be in a different namespace. Since all conformant content (outside of elements of type ED) is in the HL7 namespace, the sender can put any extension content into a foreign namespace (any namespace other than the HL7 namespace). Receiving systems must not report an error if such extensions are present. "HL7 Clinical Document Architecture, Release 2" [HL7CDAR2]

As such the following extensions have been defined where Australian concepts were not represented in CDA.

This section is provided for clarity only. Please see the relevant mappings section where these extensions have been used for actual mapping details.

9.1 ClinicalDocument.completionCode

Figure 9.1 ClinicalDocument.completionCode shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.

	ClinicalDocument
Note: completionCode has been added as an Australian	classCode*: <= DOCCLIN moodCode*: <= EVN id*: II [11] code*: CE CWE [11] < DocumentType title: ST [01] effectiveTime*: TS [11] confidentialityCode*: CE CWE [11] <= x_BasicConfidentialityKind languageCode: CS CNE [01] < HumanLanguage setId: II [01]
Digital Health Agency extension to CDA.	versionNumber: INT [01] completionCode: CE CWE [01] < DocumentCompletion

Figure 9.1. ClinicalDocument.completionCode

9.2 Multiple Birth

Figure 9.2 Multiple Birth shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.



Figure 9.2. Multiple Birth

9.3 Deceased Time

Figure 9.3 Deceased Time shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.

	Patient
Note: deceasedInd and deceasedTime have been added as Australian Digital Health Agency extensions to CDA.	classCode*: <= <i>PSN</i> determinerCode*: <= <i>INSTANCE</i> name: SET <pn> [0*] administrativeGenderCode: CE CWE [01] < <i>AdministrativeGender</i> birthTime: TS [01] deceasedInd: BL [01] deceasedTime: TS [01]</pn>
Note: deceasedInd and deceasedTime have been added as Australian Digital Health Agency extensions to CDA	SubjectPerson classCode*: <= <i>PSN</i> determinerCode*: <= <i>INSTANCE</i> name: SET <pn> [0*] administrativeGenderCode: CE CWE [01] < <i>D:AdministrativeGender</i> birthTime: TS [01] deceasedInd: BL [01] deceasedTime: TS [01]</pn>

Figure 9.3. Deceased Time

9.4 Entityldentifier

Figure 9.4 EntityIdentifier shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.



Figure 9.4. EntityIdentifier

9.5 Employment

Figure 9.5 Employment shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.



Figure 9.5. Employment

9.6 Qualifications

Figure 9.6 Qualifications shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.



Figure 9.6. Qualifications

9.7 PersonalRelationship

Figure 9.7 Personal Relationship shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.



Figure 9.7. PersonalRelationship

9.8 Entitlement

Figure 9.8 Entitlement shows a subset of the CDA R-MIM containing those classes with the relevant Australian Digital Health Agency CDA extension represented.



Figure 9.8. Entitlement

10 Vocabularies and Code Sets

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When using the following vocabulary tables, if one column in the code set table is bolded, use the code in that column, otherwise use the values in all columns.

Example 10.1. One value



Example 10.2. All values

<code< th=""></code<>
code="103.16044.4.1.1"
codeSystem="1.2.36.1.2001.1001"
codeSystemName="NCTIS Data Components"
displayName="Additional Comments" />

10.1 HL7: TelecommunicationAddressUse

Code	Value
н	Home
НР	Primary Home
HV	Vacation Home
WP	Workplace
AS	Answering Service
EC	Emergency Contact

Code	Value
МС	Mobile Contact
PG	Pager

10.2 AS 5017-2006 Health Care Client Identifier Sex

displayName	code	codeSystemName	codeSystem
Male	м	AS 5017-2006 Health Care Client Identifier Sex	2.16.840.1.113883.13.68
Female	F	AS 5017-2006 Health Care Client Identifier Sex	2.16.840.1.113883.13.68
Intersex or Indeterminate	1	AS 5017-2006 Health Care Client Identifier Sex	2.16.840.1.113883.13.68
Not Stated/Inadequately Described	N	AS 5017-2006 Health Care Client Identifier Sex	2.16.840.1.113883.13.68

10.3 AS 5017-2006: Health Care Client Name Usage

Code Set AS 5017-2006 mapped to HL7 Entity Name Use Code

When referencing the following vocabulary tables, if one column in the code set table is bolded, use the code in that column; otherwise use the values in all columns.



Note

CDA Release 2 uses HL7 Data Types Release 1. For some of the AS 5017-2006 values, there are no satisfactory equivalents in the HL7 Entity Name Use R1 code set. In these cases (marked R2), an HL7 Entity Name Use R2 code has been used.



Note

In cases (marked EXT) where there are no suitable HL7 codes, extension codes have been created.

AS 5017-2006 Code	AS 5017-2006 Alternative Code	AS 5017-2006 Descriptor	HL7 Entity Name Use Code	HL7 Entity Name Use Name	HL7 Name Use Definition
1	L	Registered Name (Legal Name)	L	(R1) Legal	(R1) Known as/conventional/the one you use.
2	R	Reporting Name	С	(R1) License	(R1) As recorded on a license, record, certificate, etc. (only if different from legal name).
3	N	Newborn Name	NB	(EXT)	(EXT)
4	В	Professional or Business Name	Α	(R1) Artist/Stage	(R1) Includes writer's pseudonym, stage name, etc.
5	М	Maiden Name (Name at birth)	Μ	(R2) Maiden Name	A name used prior to marriage.
8	0	Other Name (Alias)	Р	(R1) Pseudonym	(R1) A self-asserted name that the person is using or has used.

10.4 AS 4846-2006: Health Care Provider Organisation Name Usage

Code Set AS 5017-2006 Organisation Name Usage mapped to HL7 Name Use Code

When referencing the following vocabulary tables, if one column in the code set table is bolded, use the code in that column; otherwise use the values in all columns.



Note

There are no suitable HL7 codes, so extension codes have been created.

AS 4846-2006 Code	AS 4846-2006 Alternative Code	AS 4846-2006 Descriptor	HL7 Name Use Code	HL7 Name Use Name	HL7 Name Use Definition
1	U	Organizational unit/section/division name	ORGU	(EXT)	(EXT)
2	S	Service location name	ORGS	(EXT)	(EXT)
3	В	Business name	ORGB	(EXT)	(EXT)
4	L	Locally used name	ORGL	(EXT)	(EXT)
5	A	Abbreviated name	ORGA	(EXT)	(EXT)
6	E	Enterprise name	ORGE	(EXT)	(EXT)
8	X	Other	ORGX	(EXT)	(EXT)
9	Y	Unknown	ORGY	(EXT)	(EXT)

10.5 AS 5017-2006: Health Care Client Source of Death Notification

displayName	code	codeSystemName	codeSystem
Official death certificate or death register	D	AS 5017-2006 Health Care Client Source of Death Notification	2.16.840.1.113883.13.64
Health Care Provider	н	AS 5017-2006 Health Care Client Source of Death Notification	2.16.840.1.113883.13.64
Relative	R	AS 5017-2006 Health Care Client Source of Death Notification	2.16.840.1.113883.13.64
Other	0	AS 5017-2006 Health Care Client Source of Death Notification	2.16.840.1.113883.13.64
Unknown	U	AS 5017-2006 Health Care Client Source of Death Notification	2.16.840.1.113883.13.64

10.6 AS 5017-2006: Health Care Client Identifier Address Purpose

AS 5017-2006 mapped to HL7 AddressUse Code

When referencing the following vocabulary tables, if one column in the code set table is bolded, use the code in that column; otherwise use the values in all columns.

AS 5017-2006 Code	AS 5017-2006 Alternative Code	AS 5017-2006 Descriptor	HL7 AddressUse Code	HL7 AddressUse Name	HL7 AddressUse Definition
1	В	Business	WP	Work Place	An office address. First choice for business related contacts during busi- ness hours.
2	Μ	Mailing or Postal	PST	Postal Address	Used to send mail.
3	Т	Temporary Accommodation (individual provider only)	ТМР	Temporary Ad- dress	A temporary address, may be good for visit or mailing.
4	R	Residential (permanent) (individual pro- vider only)	н	Home Address	A communication address at a home.
9	U	Not Stated/Unknown/Inadequately De- scribed	In this case simply omit the Ad- dress Use Code		

10.7 AS 5017-2006: Health Care Client Electronic Communication Medium

When referencing the following vocabulary tables, if one column in the code set table is bolded, use the code in that column; otherwise use the values in all columns.

AS 5017-2006 Code	AS 5017-2006 Descriptor	AS 5017-2006 Alternative Code	HL7 URLScheme Code	HL7 URLScheme Name	HL7 URLScheme Definition
1	Telephone (excluding mobile telephone)	Т	tel	Telephone	A voice telephone number.
2	Mobile (cellular) telephone NOTE: Mobile will also need a TelecommunicationAddress Use code of MC (Mobile Contact) (see HL7: Telecommu- nicationAddressUse)	M	tel	Telephone	A voice telephone number.
3	Facsimile machine	F	fax	Fax	A telephone number served by a fax device.
4	Pager NOTE: Pager will also need a TelecommunicationAddress Use code of PG (Pager) (see HL7: TelecommunicationAd- dressUse)	Ρ	tel	Telephone	A voice telephone number.
5	Email	E	mailto	Mailto	Electronic mail address.

AS 5017-2006 Code	AS 5017-2006 Descriptor	AS 5017-2006 Alternative Code	HL7 URLScheme Code	HL7 URLScheme Name	HL7 URLScheme Definition
6 URL	URL	U	Use the most appropriate code from the list below:		
			file	File	Host-specific local file names. Note that the file scheme works only for local files. There is little use for exchanging local file names between systems, since the receiving sys- tem likely will not be able to access the file.
			ftp	FTP	The File Transfer Protocol (FTP).
			http	НТТР	Hypertext Transfer Protocol.
		mllp	MLLP	The traditional HL7 Minimal Lower Layer Protocol. The URL has the form of a com- mon IP URL e.g., mllp:// <host>:<port>/ with <host> being the IP address or DNS host- name and <port> being a port number on which the MLLP protocol is served.</port></host></port></host>	
			modem	Modem	A telephone number served by a modem device.
			nfs	NFS	Network File System protocol. Some sites use NFS servers to share data files.
		telnet	Telnet	Reference to interactive sessions. Some sites, (e.g., laboratories) have TTY based remote query sessions that can be accessed through telnet.	

10.8 AS 5017-2006: Health Care Client Electronic Communication Usage Code

AS 5017-2006 mapped to HL7 TelecommunicationAddressUse (HL7 TAU) Code

When referencing the following vocabulary tables, if one column in the code set table is bolded, use the code in that column; otherwise use the values in all columns.

Code	Descriptor	Alternative Code	HL7 TAU Code	HL7 TAU Name	HL7 TAU Description
1	Business	В	WP	Work place	An office address. First choice for business related contacts during business hours.
2	Personal	Ρ	Н	Home address	A communication address at a home, attempted contacts for business purposes might intrude privacy and chances are one will contact family or other household members instead of the person one wishes to call. Typically used with urgent cases, or if no other contacts are available.
3	Both business and personal use	A	WP H	Both Work place and Home ad- dress	

10.9 AS 5017-2006 Australian State/Territory Identifier - Postal

Code	Descriptor
NSW	New South Wales
VIC	Victoria
QLD	Queensland
SA	South Australia
WA	Western Australia
TAS	Tasmania
NT	Northern Territory
ACT	Australian Capital Territory
U	Unknown

10.10 AS 5017-2006 Health Care Client Identifier Date Accuracy Indicator

The data elements that use this value set consist of a combination of three codes, each of which denotes the accuracy of one date component:

- A The referred date component is accurately known.
- E The referred date component is an estimate.
- U The referred date component is unknown.

The data elements that use this value set contain positional fields (DMY).

- Field 1 (D) refers to the accuracy of the day component.
- Field 2 (M) refers to the accuracy of the month component.

Field 3 (Y) – refers to the accuracy of the year component.



Note

The order of the date components in the HL7 date and time datatypes (YYYYMMDD) is the reverse of that specified above.

The possible combinations are as follows:

code	descriptor
ААА	Accurate date
AAE	Accurate day and month, estimated year
AEA	Accurate day, estimated month, accurate year
AAU	Accurate day and month, unknown year
AUA	Accurate day, unknown month, accurate year
AEE	Accurate day, estimated month and year
AUU	Accurate day, unknown month and year
AEU	Accurate day, estimated month, unknown year
AUE	Accurate day, unknown month

code	descriptor
EEE	Estimated date
EEA	Estimated day and month, accurate year
EAE	Estimated day, accurate month
EEU	Estimated day and month, unknown year
EUE	Estimated day, unknown month, estimated year
EAA	Estimated day, accurate month and year
EUU	Estimated day, unknown month and year
EAU	Estimated day, accurate month, unknown year
EUA	Estimated day, unknown month, accurate year
υυυ	Unknown date
UUA	Unknown day and month, accurate year
UAU	Unknown day, accurate month, unknown year
UUE	Unknown day and month, estimated year
UEU	Unknown day, estimated month, unknown year
UAA	Unknown day, accurate month and year
UEE	Unknown day, estimated month and year
UAE	Unknown day, accurate month, estimated year
UEA	Unknown day, estimated month, accurate year

10.11 NCTIS: Admin Codes - Document Status

displayName	code	codeSystemName	codeSystem
Interim	I	NCTIS Document Status Values	1.2.36.1.2001.1001.101.104.20104
Final	F	NCTIS Document Status Values	1.2.36.1.2001.1001.101.104.20104
Withdrawn	W	NCTIS Document Status Values	1.2.36.1.2001.1001.101.104.20104

10.12 NCTIS: Admin Codes - Entitlement Type

displayName	code	codeSystemName	codeSystem
Medicare Benefits	1	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Pensioner Concession	2	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Commonwealth Seniors Health Concession	3	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Health Care Concession	4	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Repatriation Health Gold Benefits	5	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Repatriation Health White Benefits	6	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Repatriation Health Orange Benefits	7	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Safety Net Concession	8	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Safety Net Entitlement	9	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Medicare Prescriber Number	10	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047
Medicare Pharmacy Approval Number	11	NCTIS Entitlement Type Values	1.2.36.1.2001.1001.101.104.16047

10.13 HL7 RoleCode and RoleClass codes

displayName	code	codeSystemName	codeSystem
agent	AGNT	RoleClass	2.16.840.1.113883.5.110
Self	SELF	RoleCode	2.16.840.1.113883.5.111

10.14 METeOR 291036: Indigenous Status

displayName	code	codeSystemName	codeSystem
Aboriginal but not Torres Strait Islander origin	1	METeOR Indigenous Status	2.16.840.1.113883.3.879.291036
Torres Strait Islander but not Aboriginal origin	2	METeOR Indigenous Status	2.16.840.1.113883.3.879.291036
Both Aboriginal and Torres Strait Islander origin	3	METeOR Indigenous Status	2.16.840.1.113883.3.879.291036
Neither Aboriginal nor Torres Strait Islander origin	4	METeOR Indigenous Status	2.16.840.1.113883.3.879.291036
Not stated/inadequately described	9	METeOR Indigenous Status	2.16.840.1.113883.3.879.291036

10.15 CodeSystem OIDs



Note

This table is provided as a quick look up table; it is not an exhaustive identification of all code systems referenced in this implementation guide. The entries in the codeSystem (Name) column enable identification of the codeSystem OID to be used, but may not be the proper name of that codeSystem, i.e. the value of the codeSystemName attribute. The value of codeSystemName **SHOULD** be the name associated with the OID in the <u>HL7 OID Registry</u>¹.

codeSystem (OID)	codeSystem (Name)
1.2.36.1.2001.1001.101	NCTIS Data Components
1.2.36.1.2001.1001.101.104.16047	NCTIS Entitlement Type Values
1.2.36.1.2001.1001.101.104.20104	NCTIS Document Status Values
2.16.840.1.113883.12.62	1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations
2.16.840.1.113883.12.62	1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1
2.16.840.1.113883.13.64	AS 5017-2006 Health Care Client Source of Death Notification
2.16.840.1.113883.13.65	AIHW Mode of Separation
2.16.840.1.113883.13.63	AS 5017-2006 Health Care Client Identifier Geographic Area
2.16.840.1.113883.13.68	AS 5017-2006 Health Care Client Identifier Sex
2.16.840.1.113883.3.879.291036	METeOR Indigenous Status
2.16.840.1.113883.6.96	SNOMED CT
2.16.840.1.113883.6.96	SNOMED CT-AU
1.2.36.1.2001.1004.100	Australian Medicines Terminology (AMT) v2
2.16.840.1.113883.6.96	Australian Medicines Terminology (AMT) v3
2.16.840.1.113883.6.1	LOINC

¹ http://www.hl7.org/oid/index.cfm?ref=footer

Appendix A. CDA Narratives

CDA requires that each section in its body include a narrative block, containing a clinically complete version of the section's encoded content using custom hypertext markup defined by HL7. The narrative is the human-readable and attestable part of a CDA document, and **SHALL** stand alone as an accurate representation of the content of the document without any need to consult entries in the body.

There is no canonical markup for specific CDA components, but some conformance points apply:

- The narrative block SHALL be encapsulated within the text component of the CDA section.
- The narrative contents SHALL conform to the requirements specified in the CDA Rendering Specification.
 - In accordance with the requirement to completely represent section contents, values of codedText or codeableText data elements defined in the SCS SHALL include an originalText or a displayName component (or both). Where available, the originalText SHOULD be found in the narrative, otherwise the displayName SHOULD be found in the narrative.
- The narrative contents **SHALL** completely and accurately represent the clinical information encoded in the section. Content **SHALL NOT** be omitted from the narrative.
- The narrative SHALL conform to the content requirements of the CDA specification [HL7CDAR2] and the XML Schema.

Clinical judgement is required to determine the appropriate presentation for narrative. We may release additional guidance in this regard. The examples provided in sections of this document offer some guidance for narrative block markup and may be easily adapted as boilerplate markup. This page is intentionally left blank.

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