nehta

# Body Measurement
# Detailed Clinical Model Specification
# Version 1.1

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**National E-Health Transition Authority**

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# Document Information

## Key Information

| | |
|---|---|
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## Product Version History

| Product version | Date | Release comments |
|---|---|---|
| 1.0 | 4 Sep 2013 | Initial public release. |
| 1.1 | 18 Dec 2015 | This version of the specification is updated to correct the value of an OID, use the current version of Related Information (previously called "Link"), use the current common design elements for observations (Observation DateTime) and incorporate editorial corrections. |

## Related Documents

| Name | Version/Release Date |
|---|---|
| *NEHTA Acronyms, Abbreviations & Glossary of Terms* | Version 1.2, Issued 25 May 2005 |
| *Participation Data Specification* | Version 3.2, Issued 20 July 2011 |

### Included Detailed Clinical Models

This specification contains the following Detailed Clinical Models:

- Body Height/Length, version 3.1
- Body Weight, version 3.1
- Body Part Circumference, version 1.1
- Body Mass Index, version 1.1

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# Acknowledgements

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**Regenstrief Institute (LOINC)**

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# Table of Contents

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# 1 Introduction

## 1.1 Purpose and Scope

This detailed clinical model (DCM) specification forms part of a suite of data specifications that the National E-Health Transition Authority (NEHTA) is developing for the Australian health informatics community. The suite comprises specifications for a range of health topics (represented as data groups), which are considered to be the most critical to support the work programme given to NEHTA and to realise the benefits derived from Level 4 (semantic) interoperability[1] in the Australian healthcare setting.

NEHTA values your questions and comments about this document. Please direct your questions or feedback to *help@nehta.gov.au*.

## 1.2 Intended Audience

This document is intended to be read by jurisdictional information and communication technology (ICT) managers, clinicians involved in clinical information system specifications, software architects and developers, and implementers of clinical information systems in various healthcare settings.

It is reasonably technical in nature and expects the audience to be familiar with the language of health data specification and have some familiarity with health information standards and specifications. Definitions and examples are provided to clarify relevant terminology usage and intent.

## 1.3 Background

There are several e-health priority areas to be addressed by NEHTA specifications. One area of priority is identification of the data to be communicated and its structure. NEHTA is addressing this through data specifications, which detail the data elements (logically grouped) and their associated value domains.

Data specifications need to be independent of messaging formats. They are concerned with providing an information framework in which to achieve semantic interoperability.

Data specifications have been developed:

- Based on jurisdiction and clinician identified priorities;
- Specifically to suit the Australian model for a shared electronic health record (EHR);
- To define collections of related information, e.g. event summaries, data groups, data elements;
- To allow for expansion and extension as electronic systems mature;
- So they are human readable (with information enhanced by the hierarchical structure);
- Incorporating clinical examples of use to enhance utility and adoption; and
- To provide a set of clinical terminologies, specific to the requirements of the Australian healthcare system.

While the Personally Controlled Electronic Health Record (PCEHR) system is referred to in these documents, the implementation of the PCEHR system is not dealt with here.

[1] Level 4 interoperability is described in *The Value Of Health Care Information Exchange And Interoperability [WALJ2005a]*.

# 1.4 Terminology

NEHTA, through the National Clinical Terminology and Information Service (NCTIS), is defining a national approach to clinical terminology. Consistent and accurate articulation and interpretation of clinical terms is critical to the process of safe exchange.

The Systematized Nomenclature of Medicine - Clinical Terms (SNOMED CT) has been recommended by NEHTA and endorsed by the Australian, state and territory governments as the preferred clinical terminology for Australia, and is now freely available for e-health software developers to use in their Australian products under International Health Terminology Standards Development Organisation (IHTSDO) licensing arrangements.

While NEHTA's achievement of a national standard clinical terminology is based on SNOMED CT as the foundational resource, local variations and customisation of terms relevant to the Australian healthcare sector will be incorporated. SNOMED CT Australian Release (SNOMED CT-AU) is the Australian extension to SNOMED CT; the integrated national release of SNOMED CT for implementation in Australian deployed clinical IT systems. NEHTA is also developing the Australian Medicines Terminology (AMT) as the designated clinical terminology for medicines available in Australia. The AMT will provide a consistent approach to the identification and naming of medicines, to support medicines management and activity across the Australian healthcare domain. The AMT will be integrated with SNOMED CT-AU in the near future.

Reference sets listed as value domains within this document have been developed taking into account data element and data group definitions, as well as how they align and complement the SNOMED CT concept model. For further information regarding terminology and the development of reference sets please visit http://www.nehta.gov.au/our-work/clinical-terminology and direct your questions or feedback to *help@nehta.gov.au*.

# 2 Body Height/Length Detailed Clinical Model

This chapter describes version 3.1 of the *Body Height/Length* Detailed Clinical Model (DCM).

## 2.1 Purpose

To record the body height or length of a person, from crown of head to sole of foot, in a standing or recumbent position. Body height or length can be measured as actual or approximate.

## 2.2 Use

To be used for recording the body height or length of a person.

## 2.3 Misuse

Not to be used to record the length of an object or specific body part.

## 2.4 UML Class Diagram

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

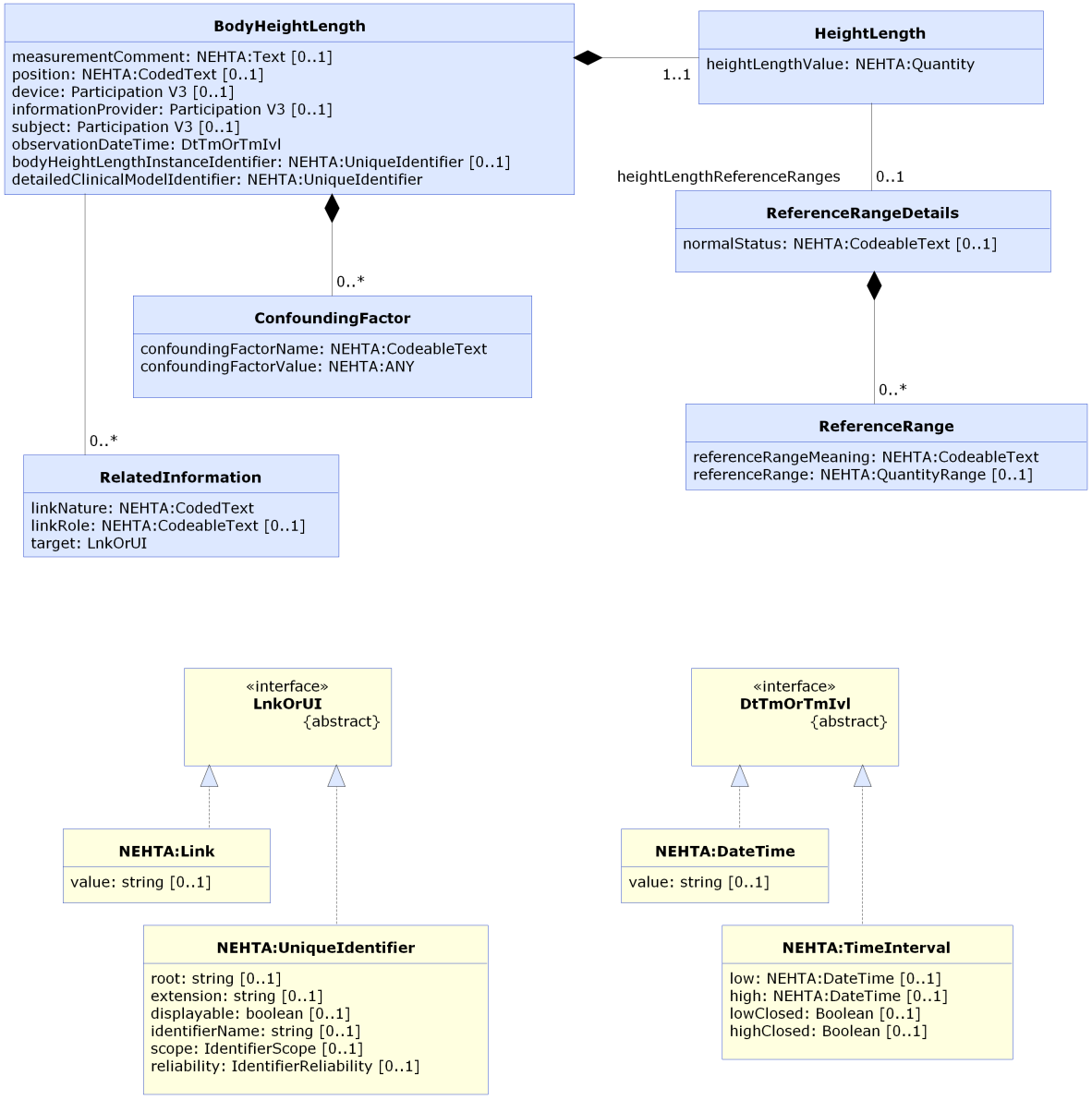


**Figure 2.1. Body Height/Length UML Class Diagram**

# 2.5 BODY HEIGHT/LENGTH

## Identification

| | |
|---|---|
| **Label** | BODY HEIGHT/LENGTH |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16123 |
| **OID** | 1.2.36.1.2001.1001.101.102.16123 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the physical measurement of the height or length of a person. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | Body Height<br>Body Length<br>Stature |
| **Notes** | Body height, or length, is measured from crown of head to sole of foot. Body height is measured with the person in a standing position and body length in a recumbent position.<br><br>The height, together with the weight, of a subject of care enables derivation of body mass index (BMI) and body surface area (BSA) which are key observations. |

# Data Hierarchy

### Note

Items below whose text is lighter (mid-blue and mid-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.

| | | | | | | |
|---|---|---|---|---|---|---|
| BODY HEIGHT/LENGTH | | | | | | |
| | HEIGHT/LENGTH | | | | | 1..1 |
| | | Height/Length Value | | | | 1..1 |
| | | Height/Length Reference Ranges (REFERENCE RANGE DETAILS) | | | | 0..1 |
| | | | Normal Status | | | 0..1 |
| | | | REFERENCE RANGE | | | 0..* |
| | | | | Reference Range Meaning | | 1..1 |
| | | | | Reference Range | | 0..1 |
| | Comment (Measurement Comment) | | | | | 0..1 |

| | | | | |
|---|---|---|---|---|
| | | Position | | 0..1 |
| | | CONFOUNDING FACTOR | | 0..* |
| | | | Confounding Factor Name | 1..1 |
| | | | Confounding Factor Value | 1..1 |
| | | DEVICE | | 0..1 |
| | | INFORMATION PROVIDER | | 0..1 |
| | | SUBJECT | | 0..1 |
| | | Observation DateTime | | 1..1 |
| | | Body Height/Length Instance Identifier | | 0..1 |
| | | RELATED INFORMATION | | 0..* |
| | | | Link Nature | 1..1 |
| | | | Link Role | 0..1 |
| | | | Target | 1..1 |
| | | Detailed Clinical Model Identifier | | 1..1 |

# 2.6 HEIGHT/LENGTH

## Identification

| | |
|---|---|
| **Label** | HEIGHT/LENGTH |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16120 |
| **OID** | 1.2.36.1.2001.1001.101.102.16120 |

## Definition

| | |
|---|---|
| **Definition** | The length of the body from crown of head to sole of foot, with reference range information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 1..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Height/Length Value | 1..1 |
|  | Height/Length Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 2.7 Height/Length Value

## Identification

| | |
|---|---|
| **Label** | Height/Length Value |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16120 |
| **OID** | 1.2.36.1.2001.1001.101.103.16120 |

## Definition

| | |
|---|---|
| **Definition** | The length of the body from crown of head to sole of foot. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Quantity |

## Usage

| | |
|---|---|
| **Conditions of Use** | The unit of measurement **SHALL** be centimetres. |
| **Conditions of Use Source** | NEHTA |
| **Examples** | 1) 54.3 cm<br>2) 172 cm |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | HEIGHT/LENGTH | 1..1 |

# 2.8 REFERENCE RANGE DETAILS

## Identification

| | |
|---|---|
| **Label** | Height/Length Reference Ranges |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16325 |
| **OID** | 1.2.36.1.2001.1001.101.102.16325 |

## Definition

| | |
|---|---|
| **Definition** | One or more reference ranges applicable to *Height/Length Value*. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | A reference range is particular to the patient and context, e.g. sex, age, and any other factor that affects ranges.<br><br>May be used to represent normal, therapeutic, dangerous, critical and other such clinical ranges. |

## Usage

| | |
|---|---|
| **Conditions of Use** | At least one child of this data group **SHALL** be instantiated. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | HEIGHT/LENGTH | 0..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Normal Status | 0..1 |
|  | REFERENCE RANGE | 0..* |

# 2.9 Normal Status

## Identification

| | |
|---|---|
| **Label** | Normal Status |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11028 |
| **OID** | 1.2.36.1.2001.1001.101.103.11028 |

## Definition

| | |
|---|---|
| **Definition** | An indication of the degree of diagnostically significant abnormality of the value, based on available clinical information (including but not limited to the reference range). |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The term “normal” is **not** statistical normality, but rather what would normally be considered healthy for the individual concerned. As such, this `data element` represents the health risk for the individual, which is indicated by the observation or measurement and the nature and criticality of that health risk. |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[1] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Below normal<br><br>2) Above normal<br><br>3) Critically low<br><br>4) Critically high |

[1] http://www.hl7.org/oid/index.cfm

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Height/Length Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 2.10 REFERENCE RANGE

## Identification

| | |
|---|---|
| **Label** | REFERENCE RANGE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-11024 |
| **OID** | 1.2.36.1.2001.1001.101.102.11024 |

## Definition

| | |
|---|---|
| **Definition** | A named range to be associated with any quantity datum. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The obligations on this data group imply that if this data group occurs only once, the *Reference Range* `data element` is optional, otherwise it is essential. |

## Usage

| | |
|---|---|
| **Conditions of Use** | If this data group occurs only once, its contents **SHALL** span the observed value.<br><br>If this data group occurs more than once, its contents **SHOULD** include all of the ranges in a single set.<br><br>If this data group occurs more than once, the *Reference Range* `data element` is **ESSENTIAL**.<br><br>All reference ranges **SHALL** come from the one set of reference ranges. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Height/Length Reference Ranges (REFERENCE RANGE DETAILS) | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Reference Range Meaning | 1..1 |
|  | Reference Range | 0..1 |

# 2.11 Reference Range Meaning

## Identification

| | |
|---|---|
| **Label** | Reference Range Meaning |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16574 |
| **OID** | 1.2.36.1.2001.1001.101.103.16574 |

## Definition

| | |
|---|---|
| **Definition** | Term whose value indicates the meaning of this range. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[2] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Normal<br><br>2) Critical<br><br>3) Therapeutic |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 1..1 |

[2] http://www.hl7.org/oid/index.cfm

# 2.12 Reference Range

## Identification

| | |
|---|---|
| **Label** | Reference Range |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11024 |
| **OID** | 1.2.36.1.2001.1001.101.103.11024 |

## Definition

| | |
|---|---|
| **Definition** | The data range for the associated *Reference Range Meaning* `data element`. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | QuantityRange |

## Usage

| | |
|---|---|
| **Examples** | 1) 15 - 58 g/L<br>2) < 15 mmol/L<br>3) 2.5 - 3.5 kg<br>4) 23 - 45 cm |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 0..1 |

# 2.13 Measurement Comment

## Identification

| | |
|---|---|
| **Label** | Comment |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15600 |
| **OID** | 1.2.36.1.2001.1001.101.103.15600 |

## Definition

| | |
|---|---|
| **Definition** | Additional comments relevant to the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Text. |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..1 |

# 2.14 Position

## Identification

| | |
|---|---|
| **Label** | Position |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16051 |
| **OID** | 1.2.36.1.2001.1001.101.103.16051 |

## Definition

| | |
|---|---|
| **Definition** | Position of the person when measured. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodedText |
| **Value Domain** | Position Values |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodedText. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..1 |

# 2.15 Position Values

## Identification

| | |
|---|---|
| **Label** | Position Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16051 |
| **OID** | 1.2.36.1.2001.1001.101.104.16051 |

## Definition

| | |
|---|---|
| **Definition** | The set of values of *Position*. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | OpenEHR | |
| **Permissible Values** | 1, Standing | Height is measured standing on both feet with weight distributed evenly, heels together and both buttocks and heels in contact with a vertical back board. |
| | 2, Lying | Length is measured in a fully extended, recumbent position with the legs extended and feet flexed. |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Position | 1..1 |

# 2.16 CONFOUNDING FACTOR

## Identification

| | |
|---|---|
| **Label** | CONFOUNDING FACTOR |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16051 |
| **OID** | 1.2.36.1.2001.1001.101.102.16051 |

## Definition

| | |
|---|---|
| **Definition** | An issue or factor of note that may have impacted on the measurement made during the examination. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Confounding Factor Name | 1..1 |
|  | Confounding Factor Value | 1..1 |

# 2.17 Confounding Factor Name

## Identification

| | |
|---|---|
| **Label** | Confounding Factor Name |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16950 |
| **OID** | 1.2.36.1.2001.1001.101.103.16950 |

## Definition

| | |
|---|---|
| **Definition** | The name of a confounding factor of an observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[3] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodeableText. |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CONFOUNDING FACTOR | 1..1 |

[3] http://www.hl7.org/oid/index.cfm

# 2.18 Confounding Factor Value

## Identification

| | |
|---|---|
| **Label** | Confounding Factor Value |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16955 |
| **OID** | 1.2.36.1.2001.1001.101.103.16955 |

## Definition

| | |
|---|---|
| **Definition** | The value of a confounding factor of an observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Typically values will be codes, measurements or text. Other types of value are possible. |
| **Data Type** | |

## Usage

| | |
|---|---|
| **Examples** | 1) Subject of care agitated and restless |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CONFOUNDING FACTOR | 1..1 |

# 2.19 DEVICE

## Identification

| | |
|---|---|
| **Label** | DEVICE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | Description of the device used to measure body height or length. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Typically this will be a machine used by the information provider. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br><br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br><br>Additional obligation and occurrence constraints:<br><br>• Participation Period is **PROHIBITED**.<br><br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br><br>• ADDRESS is **PROHIBITED**.<br><br>• ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.<br><br>• ENTITLEMENT is **PROHIBITED**.<br><br>• Qualifications is **PROHIBITED**.<br><br>Other additional constraints:<br><br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Device”.<br><br>• Role **SHALL** have an implementation-specific value equivalent to “Not Applicable”.<br><br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a DEVICE. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..1 |

# 2.20 INFORMATION PROVIDER

## Identification

| | |
|---|---|
| **Label** | INFORMATION PROVIDER |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the identification of the source of the body height/length information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This does not have to be a person and, in particular, does not have to be a healthcare provider. Types of sources include:<br>• the subject of care;<br>• a subject of care agent, e.g. parent, guardian;<br>• the clinician; and<br>• a device or software.<br>If a device makes the measurement and creates the observation record, the device is the information provider. If a person makes the measurement using a device and the person creates the observation record, the person is the information provider. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the provider of the information is not the *Composer/Author* of the enclosing Structured Document.<br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br>**Constraints applicable when the information provider is a person NOT acting as a healthcare provider.**<br>Additional obligation and occurrence constraints:<br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br>• EMPLOYMENT DETAIL is **PROHIBITED**.<br>• DEMOGRAPHIC DATA is **PROHIBITED**.<br>• ENTITLEMENT is **PROHIBITED**.<br>• Qualifications is **PROHIBITED**. |

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHOULD** have an implementation-specific value equivalent to “Authorised Representative” or “Nominated Representative”. However, other similar values **MAY** be appropriate.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.

**Constraints applicable when the information provider is a person acting as a healthcare provider.**

Additional obligation and occurrence constraints:

- LOCATION OF PARTICIPATION is **PROHIBITED**.
- Entity Identifier is **ESSENTIAL**.
- Relationship to Subject of Care is **PROHIBITED**.
- DEMOGRAPHIC DATA is **PROHIBITED**.

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification 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 is publicly available **MAY** be used.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.

**Constraints applicable when the information provider is a device.**

Additional obligation and occurrence constraints:

- LOCATION OF PARTICIPATION is **PROHIBITED**.
- ADDRESS is **PROHIBITED**.
- ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.
- ENTITLEMENT is **PROHIBITED**.
- Qualifications is **PROHIBITED**.

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHALL** have an implementation-specific value equivalent to “Not Applicable”.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as DEVICE.
- ENTITLEMENT is **PROHIBITED**.
- Qualifications is **PROHIBITED**.

| | |
|---|---|
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..1 |

# 2.21 SUBJECT

## Identification

| | |
|---|---|
| **Label** | SUBJECT |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | The person about whom the body height/length information is being recorded. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Scope** | Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed. |
| **Scope Source** | NEHTA |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the subject of the information is not the *Subject of Care* of the enclosing Structured Document.<br><br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br><br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br><br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Subject”.<br><br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..1 |

# 2.22 Observation DateTime

## Identification

| | |
|---|---|
| **Label** | Observation DateTime |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15561 |
| **OID** | 1.2.36.1.2001.1001.101.103.15561 |

## Definition

| | |
|---|---|
| **Definition** | Date, and optionally time, when an observation is clinically significant to the condition of the subject of the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | Clinically Significant DateTime<br>Effective DateTime |
| **Notes** | Associated with every observation of a subject are two different times that often, but not always, coincide, and are consequently often conflated: the time that the activity of observing occurred (the time the subject **was** observed, the *measuring time*), and the time that the subject was the way it looked (the time the subject was **as** observed, the *state time*.)<br><br>Generally, there is no delay between a person being in a state, and an observation of the person being in that state. For example, if a pulse of 72 bpm is recorded at 13:45 on 12 February 2015, one can assume that the heart rate was 72 bpm at that time. (Pulse is a surrogate for heart rate.) In such cases the *measuring time* and the *state time* are the same.<br><br>Sometimes, when there is a delay between the time the person is in a state and the time when they are measured, the delay is important. For example, if a sample is taken from a person and its testing is completed over a period of days, the test results will provide information about the state of the person at the time the sample was taken, not the time the test was completed.<br><br>The clinically significant time in all clinical observations is the time that the person was as observed, the *state time*. In observations involving specimens, the time that the specimen was taken is the closest practicable proxy for the *state time*.<br><br>The meaning of *Observation DateTime* is always the time that the person was **as** observed.<br><br>This approach follows that of openEHR. |
| **Data Type** | DateTime<br>TimeInterval |

## Usage

| | |
|---|---|
| **Examples** | Please see DateTime in Appendix B, *Specification Guide for Use* for examples and usage information on specifying a date or time (or both). |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 1..1 |

# 2.23 Body Height/Length Instance Identifier

## Identification

| | |
|---|---|
| **Label** | Body Height/Length Instance Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16732 |
| **OID** | 1.2.36.1.2001.1001.101.103.16732 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for each instance of a *Body Height/Length* observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..1 |

# 2.24 RELATED INFORMATION

## Identification

| | |
|---|---|
| **Label** | RELATED INFORMATION |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16692 |
| **OID** | 1.2.36.1.2001.1001.101.102.16692 |

## Definition

| | |
|---|---|
| **Definition** | A link to another instance of a detailed clinical model (DCM) or a document containing instances of DCMs. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Links may be to structures inside the enclosing document or inside other documents. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Link Nature | 1..1 |
|  | Link Role | 0..1 |
|  | Target | 1..1 |

# 2.25 Link Nature

## Identification

| | |
|---|---|
| **Label** | Link Nature |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16698 |
| **OID** | 1.2.36.1.2001.1001.101.103.16698 |

## Definition

| | |
|---|---|
| **Definition** | The general semantic category of the relationship between this instance of this detailed clinical model (DCM), i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and receiver. |
| **Data Type** | CodedText |
| **Value Domain** | Link Nature Values |

## Usage

| | |
|---|---|
| **Examples** | 1) is related to<br>2) is confirmed by or authorised by<br>3) is related to the same problem or health issue |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 2.26 Link Nature Values

## Identification

| | |
|---|---|
| **Label** | Link Nature Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16698 |
| **OID** | 1.2.36.1.2001.1001.101.104.16698 |
| **External Identifier** | LINK_NATURE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the general semantic category of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | ISO 13606-3:2009 | |
| **Permissible Values** | The permissible values are those specified in Termlist LINK_NATURE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]*. They are listed here. | |
| | LINK-A0, is related to | A generic category for any Link, the details of which will be given by the value of Link Role. |
| | LINK-B0, is confirmed by or authorised by | The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a single [DCM instance or document]. |
| | LINK-C0, is related to the same problem or health issue | The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication. |
| | LINK-D0, is related to the same care plan, act or episode | The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both might be related milestones. |

| | | |
|---|---|---|
| | LINK-E0, is a related documentation | The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Link Nature | 1..1 |

# 2.27 Link Role

## Identification

| | |
|---|---|
| **Label** | Link Role |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16699 |
| **OID** | 1.2.36.1.2001.1001.101.103.16699 |

## Definition

| | |
|---|---|
| **Definition** | The detailed semantic description of the relationship between this instance of this DCM (i.e. the source), and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.<br><br>This attribute may be populated from any suitable terminology, and therefore might support human readership better than interoperable automated processing. |
| **Data Type** | CodeableText |
| **Value Domain** | Link Role Values |

## Usage

| | |
|---|---|
| **Examples** | 1) unspecified link<br>2) suggests<br>3) endorses<br>4) evidence for<br>5) outcome<br>6) is documented by<br>7) excerpts |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 0..1 |

# 2.28 Link Role Values

## Identification

| | |
|---|---|
| **Label** | Link Role Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16699 |
| **OID** | 1.2.36.1.2001.1001.101.104.16699 |
| **External Identifier** | LINK_ROLE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the detailed semantic description of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Context** | These values are used within the context of the value of the *Link Nature* `data element`. They provide greater specificity and may be selected more for human readership than for interoperable automated processing. |
| **Context Source** | NEHTA |

## Value Domain

| | |
|---|---|
| **Source** | ISO 13606-3:2009 |
| **Permissible Values** | Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].<br><br>Values **MAY** be from any suitable terminology.<br><br>Some values from Termlist LINK_ROLE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]* are: |

| | |
|---|---|
| LINK-A1, unspecified link | The term is used when no semantic information is available for this Link in the EHR system from which the EXTRACT has been created. |
| LINK-A2, suggests | The interpretation expressed in the target component is a possible cause or outcome of the findings documented in the source component. |
| LINK-B1, endorses | The interpretation expressed in the source component provides confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component. |
| LINK-C3, evidence for | The observation or interpretation documented in the source component provides confirmatory evidence of the interpretation expressed in the target component. |
| LINK-D1, outcome | The clinical situation documented in the target component is the direct outcome of the situation documented in the source component. |

| | | |
|---|---|---|
| | LINK-E1, documented by | A clinical situation documented in the source component is more formally documented in the target component. |
| | LINK-E4, excerpts | The source component is an extract (copy) of part or all of the information contained within the target component. |

# Usage

| | |
|---|---|
| **Conditions of Use** | Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-”. For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the *Link Role* `data element`, the appropriate corresponding value **SHALL** be used from *Link Nature Values*. |
| **Conditions of Use Source** | ISO 13606-3:2009 |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Link Role | 1..1 |

# 2.29 Target

## Identification

| | |
|---|---|
| **Label** | Target |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16700 |
| **OID** | 1.2.36.1.2001.1001.101.103.16700 |

## Definition

| | |
|---|---|
| **Definition** | The “linked to” or identified information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Link<br>UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Link, and UniqueIdentifier. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 2.30 Detailed Clinical Model Identifier

## Identification

| | |
|---|---|
| **Label** | Detailed Clinical Model Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16693 |
| **OID** | 1.2.36.1.2001.1001.101.103.16693 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for this detailed clinical model. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Conditions of Use** | The value of this item **SHALL** be either the default value or a semantically equivalent value from an appropriate code system. |
| **Conditions of Use Source** | NEHTA |
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |
| **Default Value** | 1.2.36.1.2001.1001.101.102.16123 |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY HEIGHT/LENGTH | 1..1 |

# 3 Body Weight Detailed Clinical Model

This chapter describes version 3.1 of the *Body Weight* Detailed Clinical Model (DCM).

## 3.1 Purpose

To record the body weight of a person. Body weight can be measured as actual or approximate.

## 3.2 Use

To be used for recording the body weight of a person. This DCM is used to record the whole weight of the body regardless of the physical incompleteness of the body, for example when an individual is missing a body part.

## 3.3 Misuse

Not to be used to record the weight of an object or body part.

## 3.4 UML Class Diagram

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

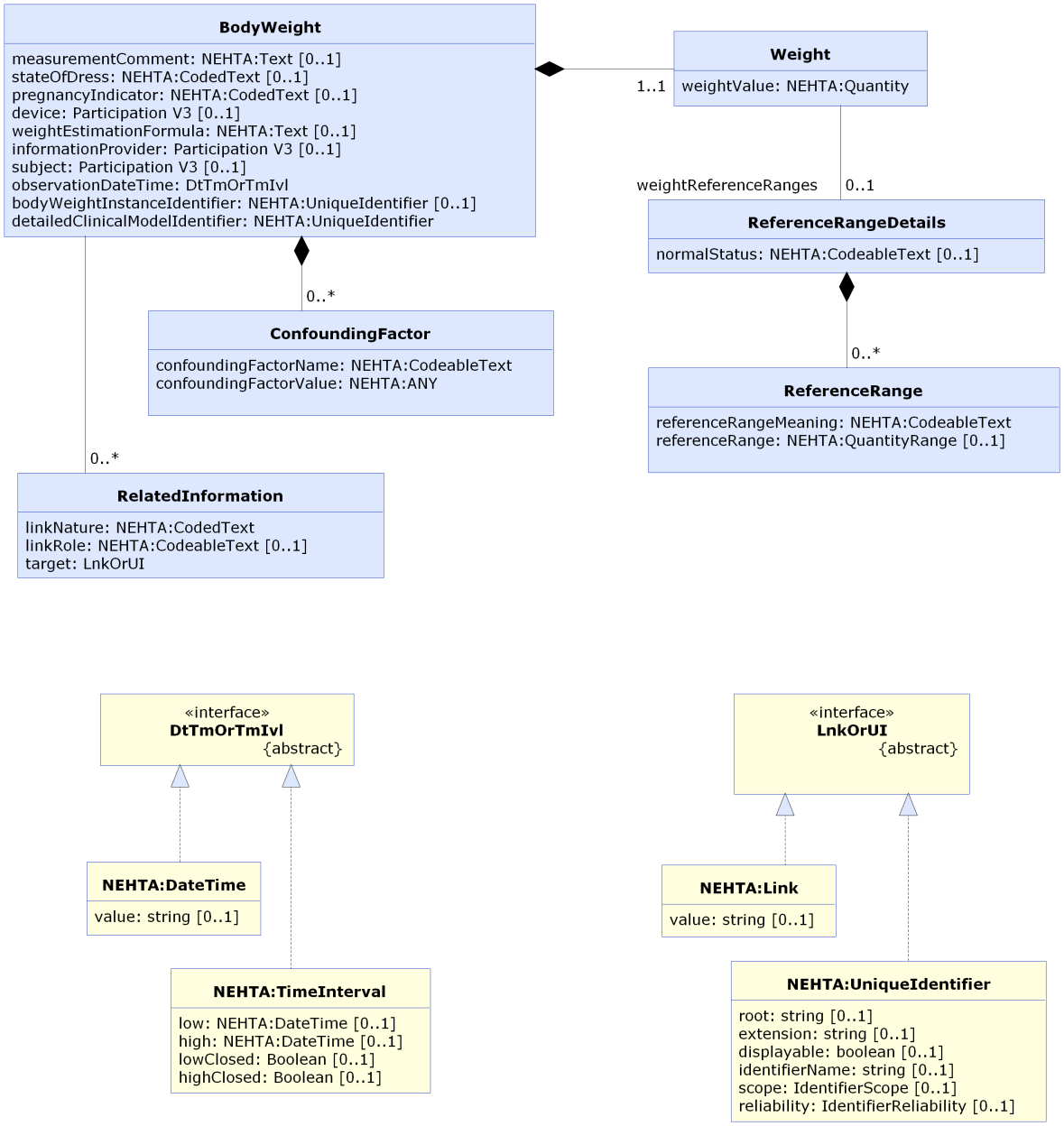


**Figure 3.1. Body Weight UML Class Diagram**

# 3.5 BODY WEIGHT

## Identification

| | |
|---|---|
| **Label** | BODY WEIGHT |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16124 |
| **OID** | 1.2.36.1.2001.1001.101.102.16124 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the physical measurement of the weight (mass) of a person. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The height, together with the weight, of a subject of care enables derivation of body mass index (BMI) and body surface area (BSA) which are key observations. |

## Usage

| | |
|---|---|
| **Conditions of Use** | In prescriptions: For children 12 years old or younger, a body weight **SHALL** be recorded. |
| **Conditions of Use Source** | NEHTA |

# Data Hierarchy

### Note

Items below whose text is lighter (mid-blue and mid-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.

| | | | | | | |
|---|---|---|---|---|---|---|
| BODY WEIGHT | | | | | | |
| | WEIGHT | | | | | 1..1 |
| | | Weight Value | | | | 1..1 |
| | | Weight Reference Ranges (REFERENCE RANGE DETAILS) | | | | 0..1 |
| | | | Normal Status | | | 0..1 |
| | | | REFERENCE RANGE | | | 0..* |
| | | | | Reference Range Meaning | | 1..1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | Reference Range | 0..1 |
| | | Comment (Measurement Comment) | | | | 0..1 |
| | | State of Dress | | | | 0..1 |
| | | Pregnancy Indicator | | | | 0..1 |
| | | CONFOUNDING FACTOR | | | | 0..* |
| | | | Confounding Factor Name | | | 1..1 |
| | | | Confounding Factor Value | | | 1..1 |
| | | DEVICE | | | | 0..1 |
| | | Weight Estimation Formula | | | | 0..1 |
| | | INFORMATION PROVIDER | | | | 0..1 |
| | | SUBJECT | | | | 0..1 |
| | | Observation DateTime | | | | 1..1 |
| | | Body Weight Instance Identifier | | | | 0..1 |
| | | RELATED INFORMATION | | | | 0..* |
| | | | Link Nature | | | 1..1 |
| | | | Link Role | | | 0..1 |
| | | | Target | | | 1..1 |
| | | Detailed Clinical Model Identifier | | | | 1..1 |

# 3.6 WEIGHT

## Identification

| | |
|---|---|
| **Label** | WEIGHT |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16125 |
| **OID** | 1.2.36.1.2001.1001.101.102.16125 |

## Definition

| | |
|---|---|
| **Definition** | The weight of the person, with reference range information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 1..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Weight Value | 1..1 |
|  | Weight Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 3.7 Weight Value

## Identification

| | |
|---|---|
| **Label** | Weight Value |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16125 |
| **OID** | 1.2.36.1.2001.1001.101.103.16125 |

## Definition

| | |
|---|---|
| **Definition** | The weight of the person. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | Person Weight |
| **Data Type** | Quantity |

## Usage

| | |
|---|---|
| **Conditions of Use** | The unit of measurement **SHALL** be kilograms. |
| **Conditions of Use Source** | NEHTA |
| **Examples** | 1) 73 kg<br>2) 0.89 kg |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | WEIGHT | 1..1 |

# 3.8 REFERENCE RANGE DETAILS

## Identification

| | |
|---|---|
| **Label** | Weight Reference Ranges |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16325 |
| **OID** | 1.2.36.1.2001.1001.101.102.16325 |

## Definition

| | |
|---|---|
| **Definition** | One or more reference ranges applicable to *Weight Value*. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | A reference range is particular to the patient and context, e.g. sex, age, and any other factor that affects ranges.<br><br>May be used to represent normal, therapeutic, dangerous, critical and other such clinical ranges. |

## Usage

| | |
|---|---|
| **Conditions of Use** | At least one child of this data group **SHALL** be instantiated. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | WEIGHT | 0..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Normal Status | 0..1 |
|  | REFERENCE RANGE | 0..* |

# 3.9 Normal Status

## Identification

| | |
|---|---|
| **Label** | Normal Status |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11028 |
| **OID** | 1.2.36.1.2001.1001.101.103.11028 |

## Definition

| | |
|---|---|
| **Definition** | An indication of the degree of diagnostically significant abnormality of the value, based on available clinical information (including but not limited to the reference range). |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The term “normal” is **not** statistical normality, but rather what would normally be considered healthy for the individual concerned. As such, this `data element` represents the health risk for the individual, which is indicated by the observation or measurement and the nature and criticality of that health risk. |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[1] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Below normal<br><br>2) Above normal<br><br>3) Critically low<br><br>4) Critically high |

[1] http://www.hl7.org/oid/index.cfm

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Weight Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 3.10 REFERENCE RANGE

## Identification

| | |
|---|---|
| **Label** | REFERENCE RANGE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-11024 |
| **OID** | 1.2.36.1.2001.1001.101.102.11024 |

## Definition

| | |
|---|---|
| **Definition** | A named range to be associated with any quantity datum. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The obligations on this data group imply that if this data group occurs only once, the *Reference Range* `data element` is optional, otherwise it is essential. |

## Usage

| | |
|---|---|
| **Conditions of Use** | If this data group occurs only once, its contents **SHALL** span the observed value.<br><br>If this data group occurs more than once, its contents **SHOULD** include all of the ranges in a single set.<br><br>If this data group occurs more than once, the *Reference Range* `data element` is **ESSENTIAL**.<br><br>All reference ranges **SHALL** come from the one set of reference ranges. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Weight Reference Ranges (REFERENCE RANGE DETAILS) | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Reference Range Meaning | 1..1 |
|  | Reference Range | 0..1 |

# 3.11 Reference Range Meaning

## Identification

| | |
|---|---|
| **Label** | Reference Range Meaning |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16574 |
| **OID** | 1.2.36.1.2001.1001.101.103.16574 |

## Definition

| | |
|---|---|
| **Definition** | Term whose value indicates the meaning of this range. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[2] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Normal<br><br>2) Critical<br><br>3) Therapeutic |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 1..1 |

[2] http://www.hl7.org/oid/index.cfm

# 3.12 Reference Range

## Identification

| | |
|---|---|
| **Label** | Reference Range |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11024 |
| **OID** | 1.2.36.1.2001.1001.101.103.11024 |

## Definition

| | |
|---|---|
| **Definition** | The data range for the associated *Reference Range Meaning* `data element`. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | QuantityRange |

## Usage

| | |
|---|---|
| **Examples** | 1) 15 - 58 g/L<br>2) < 15 mmol/L<br>3) 2.5 - 3.5 kg<br>4) 23 - 45 cm |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 0..1 |

# 3.13 Measurement Comment

## Identification

| | |
|---|---|
| **Label** | Comment |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15600 |
| **OID** | 1.2.36.1.2001.1001.101.103.15600 |

## Definition

| | |
|---|---|
| **Definition** | Additional comments relevant to the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Text. |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.14 State of Dress

## Identification

| | |
|---|---|
| **Label** | State of Dress |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16845 |
| **OID** | 1.2.36.1.2001.1001.101.103.16845 |

## Definition

| | |
|---|---|
| **Definition** | Description of the state of dress of the person at the time of weighing. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodedText |
| **Value Domain** | State of Dress Values |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodedText. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.15 State of Dress Values

## Identification

| | |
|---|---|
| **Label** | State of Dress Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16844 |
| **OID** | 1.2.36.1.2001.1001.101.104.16844 |

## Definition

| | |
|---|---|
| **Definition** | The set of values of *State of Dress*. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | NEHTA | |
| **Permissible Values** | 1, Lightly clothed/underwear | Clothing which will not add to weight significantly. |
| | 2, Naked | Without any clothes. |
| | 3, Fully clothed, including shoes | Clothing which may add significantly to weight, including shoes. |
| | 4, Nappy/diaper | Wearing only a nappy - can add significant weight. |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | State of Dress | 1..1 |

# 3.16 Pregnancy Indicator

## Identification

| | |
|---|---|
| **Label** | Pregnancy Indicator |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16846 |
| **OID** | 1.2.36.1.2001.1001.101.103.16846 |
| **External Identifier** | METeOR data element concept identifier: 303957 |

## Definition

| | |
|---|---|
| **Definition** | Whether or not the person is pregnant at the time of the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodedText |
| **Value Domain** | Pregnancy Indicator Values |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodedText. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.17 Pregnancy Indicator Values

## Identification

| | |
|---|---|
| **Label** | Pregnancy Indicator Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16917 |
| **OID** | 1.2.36.1.2001.1001.101.104.16917 |

## Definition

| | |
|---|---|
| **Definition** | The set of values of *Pregnancy Indicator*. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | SNOMED CT-AU | |
| **Permissible Values** | 77386006 | Patient currently pregnant (finding) |
| | 60001007 | Not pregnant (finding) |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Pregnancy Indicator | 1..1 |

# 3.18 CONFOUNDING FACTOR

## Identification

| | |
|---|---|
| **Label** | CONFOUNDING FACTOR |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16051 |
| **OID** | 1.2.36.1.2001.1001.101.102.16051 |

## Definition

| | |
|---|---|
| **Definition** | An issue or factor of note that may have impacted on the measurement made during the examination. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Confounding Factor Name | 1..1 |
|  | Confounding Factor Value | 1..1 |

# 3.19 Confounding Factor Name

## Identification

| | |
|---|---|
| **Label** | Confounding Factor Name |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16950 |
| **OID** | 1.2.36.1.2001.1001.101.103.16950 |

## Definition

| | |
|---|---|
| **Definition** | The name of a confounding factor of an observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[3] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodeableText. |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CONFOUNDING FACTOR | 1..1 |

[3] http://www.hl7.org/oid/index.cfm

# 3.20 Confounding Factor Value

## Identification

| | |
|---|---|
| **Label** | Confounding Factor Value |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16955 |
| **OID** | 1.2.36.1.2001.1001.101.103.16955 |

## Definition

| | |
|---|---|
| **Definition** | The value of a confounding factor of an observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Typically values will be codes, measurements or text. Other types of value are possible. |
| **Data Type** | |

## Usage

| | |
|---|---|
| **Examples** | 1) Subject of care agitated and restless |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CONFOUNDING FACTOR | 1..1 |

# 3.21 DEVICE

## Identification

| | |
|---|---|
| **Label** | DEVICE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | Description of the device used to measure the body weight. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Typically this will be a machine used by the information provider. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br><br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br><br>Additional obligation and occurrence constraints:<br><br>• Participation Period is **PROHIBITED**.<br><br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br><br>• ADDRESS is **PROHIBITED**.<br><br>• ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.<br><br>• ENTITLEMENT is **PROHIBITED**.<br><br>• Qualifications is **PROHIBITED**.<br><br>Other additional constraints:<br><br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Device”.<br><br>• Role **SHALL** have an implementation-specific value equivalent to “Not Applicable”.<br><br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a DEVICE. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.22 Weight Estimation Formula

## Identification

| | |
|---|---|
| **Label** | Weight Estimation Formula |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16847 |
| **OID** | 1.2.36.1.2001.1001.101.103.16847 |

## Definition

| | |
|---|---|
| **Definition** | Formula used to calculate the estimated weight. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Text. |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.23 INFORMATION PROVIDER

## Identification

| | |
|---|---|
| **Label** | INFORMATION PROVIDER |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the identification of the source of the body weight information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This does not have to be a person and, in particular, does not have to be a healthcare provider. Types of sources include:<br>• the subject of care;<br>• a subject of care agent, e.g. parent, guardian;<br>• the clinician; and<br>• a device or software.<br>If a device makes the measurement and creates the observation record, the device is the information provider. If a person makes the measurement using a device and the person creates the observation record, the person is the information provider. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the provider of the information is not the *Composer/Author* of the enclosing Structured Document.<br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br>**Constraints applicable when the information provider is a person NOT acting as a healthcare provider.**<br>Additional obligation and occurrence constraints:<br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br>• EMPLOYMENT DETAIL is **PROHIBITED**.<br>• DEMOGRAPHIC DATA is **PROHIBITED**.<br>• ENTITLEMENT is **PROHIBITED**.<br>• Qualifications is **PROHIBITED**. |

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHOULD** have an implementation-specific value equivalent to “Authorised Representative” or “Nominated Representative”. However, other similar values **MAY** be appropriate.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.

**Constraints applicable when the information provider is a person acting as a healthcare provider.**

Additional obligation and occurrence constraints:

- LOCATION OF PARTICIPATION is **PROHIBITED**.
- Entity Identifier is **ESSENTIAL**.
- Relationship to Subject of Care is **PROHIBITED**.
- DEMOGRAPHIC DATA is **PROHIBITED**.

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification 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 is publicly available **MAY** be used.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.

**Constraints applicable when the information provider is a device.**

Additional obligation and occurrence constraints:

- LOCATION OF PARTICIPATION is **PROHIBITED**.
- ADDRESS is **PROHIBITED**.
- ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.
- ENTITLEMENT is **PROHIBITED**.
- Qualifications is **PROHIBITED**.

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHALL** have an implementation-specific value equivalent to “Not Applicable”.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as DEVICE.
- ENTITLEMENT is **PROHIBITED**.
- Qualifications is **PROHIBITED**.

| | |
|---|---|
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.24 SUBJECT

## Identification

| | |
|---|---|
| **Label** | SUBJECT |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | The person about whom the body weight information is being recorded. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Scope** | Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed. |
| **Scope Source** | NEHTA |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the subject of the information is not the *Subject of Care* of the enclosing Structured Document.<br><br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br><br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br><br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Subject”.<br><br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.25 Observation DateTime

## Identification

| | |
|---|---|
| **Label** | Observation DateTime |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15561 |
| **OID** | 1.2.36.1.2001.1001.101.103.15561 |

## Definition

| | |
|---|---|
| **Definition** | Date, and optionally time, when an observation is clinically significant to the condition of the subject of the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | Clinically Significant DateTime<br>Effective DateTime |
| **Notes** | Associated with every observation of a subject are two different times that often, but not always, coincide, and are consequently often conflated: the time that the activity of observing occurred (the time the subject **was** observed, the *measuring time*), and the time that the subject was the way it looked (the time the subject was **as** observed, the *state time*.)<br><br>Generally, there is no delay between a person being in a state, and an observation of the person being in that state. For example, if a pulse of 72 bpm is recorded at 13:45 on 12 February 2015, one can assume that the heart rate was 72 bpm at that time. (Pulse is a surrogate for heart rate.) In such cases the *measuring time* and the *state time* are the same.<br><br>Sometimes, when there is a delay between the time the person is in a state and the time when they are measured, the delay is important. For example, if a sample is taken from a person and its testing is completed over a period of days, the test results will provide information about the state of the person at the time the sample was taken, not the time the test was completed.<br><br>The clinically significant time in all clinical observations is the time that the person was as observed, the *state time*. In observations involving specimens, the time that the specimen was taken is the closest practicable proxy for the *state time*.<br><br>The meaning of *Observation DateTime* is always the time that the person was **as** observed.<br><br>This approach follows that of openEHR. |
| **Data Type** | DateTime<br>TimeInterval |

## Usage

| | |
|---|---|
| **Examples** | Please see DateTime in Appendix B, *Specification Guide for Use* for examples and usage information on specifying a date or time (or both). |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 1..1 |

# 3.26 Body Weight Instance Identifier

## Identification

| | |
|---|---|
| **Label** | Body Weight Instance Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16735 |
| **OID** | 1.2.36.1.2001.1001.101.103.16735 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for each instance of a *Body Weight* observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 0..1 |

# 3.27 RELATED INFORMATION

## Identification

| | |
|---|---|
| **Label** | RELATED INFORMATION |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16692 |
| **OID** | 1.2.36.1.2001.1001.101.102.16692 |

## Definition

| | |
|---|---|
| **Definition** | A link to another instance of a detailed clinical model (DCM) or a document containing instances of DCMs. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Links may be to structures inside the enclosing document or inside other documents. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
| | BODY WEIGHT | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
| | Link Nature | 1..1 |
| | Link Role | 0..1 |
| | Target | 1..1 |

# 3.28 Link Nature

## Identification

| | |
|---|---|
| **Label** | Link Nature |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16698 |
| **OID** | 1.2.36.1.2001.1001.101.103.16698 |

## Definition

| | |
|---|---|
| **Definition** | The general semantic category of the relationship between this instance of this detailed clinical model (DCM), i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and receiver. |
| **Data Type** | CodedText |
| **Value Domain** | Link Nature Values |

## Usage

| | |
|---|---|
| **Examples** | 1) is related to<br>2) is confirmed by or authorised by<br>3) is related to the same problem or health issue |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 3.29 Link Nature Values

## Identification

| | |
|---|---|
| **Label** | Link Nature Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16698 |
| **OID** | 1.2.36.1.2001.1001.101.104.16698 |
| **External Identifier** | LINK_NATURE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the general semantic category of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | ISO 13606-3:2009 | |
| **Permissible Values** | The permissible values are those specified in Termlist LINK_NATURE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]*. They are listed here. | |
| | LINK-A0, is related to | A generic category for any Link, the details of which will be given by the value of Link Role. |
| | LINK-B0, is confirmed by or authorised by | The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a single [DCM instance or document]. |
| | LINK-C0, is related to the same problem or health issue | The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication. |
| | LINK-D0, is related to the same care plan, act or episode | The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both might be related milestones. |

| | | |
|---|---|---|
| | LINK-E0, is a related documentation | The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Link Nature | 1..1 |

# 3.30 Link Role

## Identification

| | |
|---|---|
| **Label** | Link Role |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16699 |
| **OID** | 1.2.36.1.2001.1001.101.103.16699 |

## Definition

| | |
|---|---|
| **Definition** | The detailed semantic description of the relationship between this instance of this DCM (i.e. the source), and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.<br><br>This attribute may be populated from any suitable terminology, and therefore might support human readership better than interoperable automated processing. |
| **Data Type** | CodeableText |
| **Value Domain** | Link Role Values |

## Usage

| | |
|---|---|
| **Examples** | 1) unspecified link<br>2) suggests<br>3) endorses<br>4) evidence for<br>5) outcome<br>6) is documented by<br>7) excerpts |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
| | RELATED INFORMATION | 0..1 |

# 3.31 Link Role Values

## Identification

| | |
|---|---|
| **Label** | Link Role Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16699 |
| **OID** | 1.2.36.1.2001.1001.101.104.16699 |
| **External Identifier** | LINK_ROLE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the detailed semantic description of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Context** | These values are used within the context of the value of the *Link Nature* `data element`. They provide greater specificity and may be selected more for human readership than for interoperable automated processing. |
| **Context Source** | NEHTA |

## Value Domain

| | |
|---|---|
| **Source** | ISO 13606-3:2009 |
| **Permissible Values** | Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].<br><br>Values **MAY** be from any suitable terminology.<br><br>Some values from Termlist LINK_ROLE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]* are: |

| | |
|---|---|
| LINK-A1, unspecified link | The term is used when no semantic information is available for this Link in the EHR system from which the EXTRACT has been created. |
| LINK-A2, suggests | The interpretation expressed in the target component is a possible cause or outcome of the findings documented in the source component. |
| LINK-B1, endorses | The interpretation expressed in the source component provides confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component. |
| LINK-C3, evidence for | The observation or interpretation documented in the source component provides confirmatory evidence of the interpretation expressed in the target component. |
| LINK-D1, outcome | The clinical situation documented in the target component is the direct outcome of the situation documented in the source component. |

| | | |
|---|---|---|
| | LINK-E1, documented by | A clinical situation documented in the source component is more formally documented in the target component. |
| | LINK-E4, excerpts | The source component is an extract (copy) of part or all of the information contained within the target component. |

# Usage

| | |
|---|---|
| **Conditions of Use** | Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-”. For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the *Link Role* `data element`, the appropriate corresponding value **SHALL** be used from *Link Nature Values*. |
| **Conditions of Use Source** | ISO 13606-3:2009 |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Link Role | 1..1 |

# 3.32 Target

## Identification

| | |
|---|---|
| **Label** | Target |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16700 |
| **OID** | 1.2.36.1.2001.1001.101.103.16700 |

## Definition

| | |
|---|---|
| **Definition** | The “linked to” or identified information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Link<br>UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Link, and UniqueIdentifier. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 3.33 Detailed Clinical Model Identifier

## Identification

| | |
|---|---|
| **Label** | Detailed Clinical Model Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16693 |
| **OID** | 1.2.36.1.2001.1001.101.103.16693 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for this detailed clinical model. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Conditions of Use** | The value of this item **SHALL** be either the default value or a semantically equivalent value from an appropriate code system. |
| **Conditions of Use Source** | NEHTA |
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |
| **Default Value** | 1.2.36.1.2001.1001.101.102.16124 |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY WEIGHT | 1..1 |

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# 4 Body Part Circumference Detailed Clinical Model

This chapter describes version 1.1 of the *Body Part Circumference* Detailed Clinical Model (DCM).

## 4.1 Purpose

To record the circumference of a specified body part of a person.

## 4.2 Use

To be used for recording the measurement of the circumference of a body part. This DCM can be used for typical circumference measurement, for example, by a fitness instructor in a gymnasium; self-measurement by a person at home; or a clinical measurement by a clinician in a clinic or hospital.

## 4.3 UML Class Diagram

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

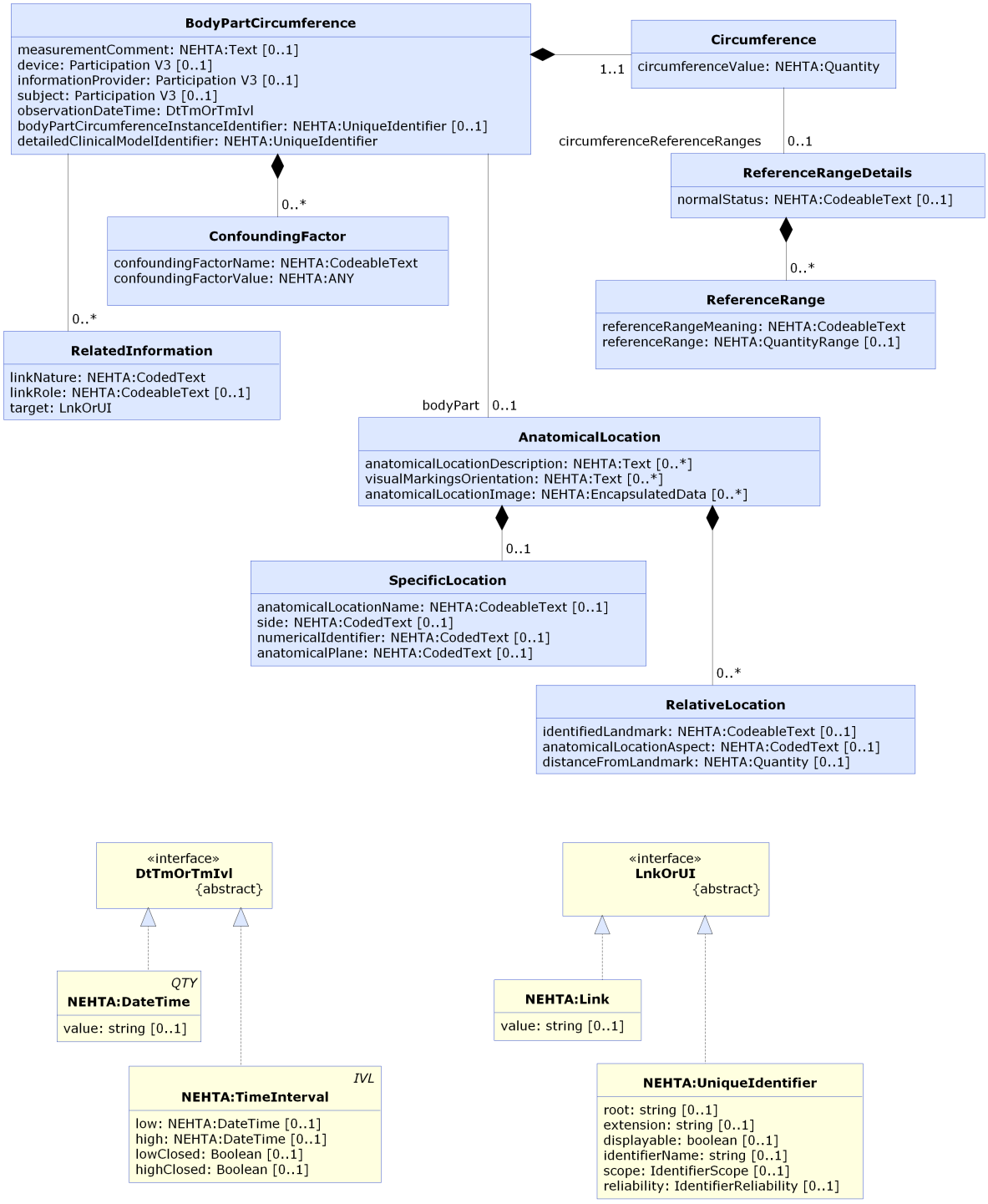


**Figure 4.1. Body Part Circumference UML Class Diagram**

# 4.4 BODY PART CIRCUMFERENCE

## Identification

| | |
|---|---|
| **Label** | BODY PART CIRCUMFERENCE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16808 |
| **OID** | 1.2.36.1.2001.1001.101.102.16808 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the physical measurement of the circumference of a specified body part of a person. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Examples of body parts include the head, a limb or the waist. |

# Data Hierarchy

### Note

Items below whose text is lighter (mid-blue and mid-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.

| | | | | | |
|---|---|---|---|---|---|
| BODY PART CIRCUMFERENCE | | | | | |
| | Body Part (ANATOMICAL LOCATION) | | | | 0..1 |
| | | SPECIFIC LOCATION | | | 0..1 |
| | | | Anatomical Location Name | | 0..1 |
| | | | Side | | 0..1 |
| | | | Numerical Identifier | | 0..1 |
| | | | Anatomical Plane | | 0..1 |
| | | RELATIVE LOCATION | | | 0..* |
| | | | Identified Landmark | | 0..1 |
| | | | Anatomical Location Aspect | | 0..1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | Distance From Landmark | | 0..1 |
| | | Anatomical Location Description | | | | 0..* |
| | | Visual Markings/Orientation | | | | 0..* |
| | | Anatomical Location Image | | | | 0..* |
| | CIRCUMFERENCE | | | | | 1..1 |
| | | Circumference Value | | | | 1..1 |
| | | Circumference Reference Ranges (REFERENCE RANGE DETAILS) | | | | 0..1 |
| | | | Normal Status | | | 0..1 |
| | | | REFERENCE RANGE | | | 0..* |
| | | | | Reference Range Meaning | | 1..1 |
| | | | | Reference Range | | 0..1 |
| | Comment (Measurement Comment) | | | | | 0..1 |
| | CONFOUNDING FACTOR | | | | | 0..* |
| | | Confounding Factor Name | | | | 1..1 |
| | | Confounding Factor Value | | | | 1..1 |
| | DEVICE | | | | | 0..1 |
| | INFORMATION PROVIDER | | | | | 0..1 |
| | SUBJECT | | | | | 0..1 |
| | Observation DateTime | | | | | 1..1 |
| | Body Part Circumference Instance Identifier | | | | | 0..1 |
| | RELATED INFORMATION | | | | | 0..* |
| | | Link Nature | | | | 1..1 |
| | | Link Role | | | | 0..1 |
| | | Target | | | | 1..1 |

| | | | |
|---|---|---|---|
| |  | Detailed Clinical Model Identifier | 1..1 |

# 4.5 ANATOMICAL LOCATION

## Identification

| | |
|---|---|
| **Label** | Body Part |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16150 |
| **OID** | 1.2.36.1.2001.1001.101.102.16150 |

## Definition

| | |
|---|---|
| **Definition** | The anatomical site whose circumference is measured. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
| | BODY PART CIRCUMFERENCE | 0..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
| | SPECIFIC LOCATION | 0..1 |
| | RELATIVE LOCATION | 0..* |
| | Anatomical Location Description | 0..* |
| | Visual Markings/Orientation | 0..* |
| | Anatomical Location Image | 0..* |

# 4.6 SPECIFIC LOCATION

## Identification

| | |
|---|---|
| **Label** | SPECIFIC LOCATION |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16151 |
| **OID** | 1.2.36.1.2001.1001.101.102.16151 |

## Definition

| | |
|---|---|
| **Definition** | Specific and identified anatomical location. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Body Part (ANATOMICAL LOCATION) | 0..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Anatomical Location Name | 0..1 |
|  | Side | 0..1 |
|  | Numerical Identifier | 0..1 |
|  | Anatomical Plane | 0..1 |

# 4.7 Anatomical Location Name

## Identification

| | |
|---|---|
| **Label** | Anatomical Location Name |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16153 |
| **OID** | 1.2.36.1.2001.1001.101.103.16153 |

## Definition

| | |
|---|---|
| **Definition** | The name of the anatomical location. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | Body Structure Foundation Reference Set |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodeableText. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | SPECIFIC LOCATION | 0..1 |

# 4.8 Body Structure Foundation Reference Set

## Identification

| | |
|---|---|
| **Label** | Body Structure Foundation Reference Set |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16152 |
| **OID** | 1.2.36.1.2001.1001.101.104.16152 |
| **External Identifier** | SNOMED CT-AU Concept Id: 32570061000036105 |

## Definition

| | |
|---|---|
| **Definition** | The set of values for named anatomical locations. |
| **Definition Source** | NEHTA |

## Value Domain

| | |
|---|---|
| **Source** | SNOMED CT-AU |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Anatomical Location Name | 1..1 |

# 4.9 Side

## Identification

| | |
|---|---|
| **Label** | Side |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16336 |
| **OID** | 1.2.36.1.2001.1001.101.103.16336 |

## Definition

| | |
|---|---|
| **Definition** | The laterality of the anatomical location. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | Laterality |
| **Data Type** | CodedText |
| **Value Domain** | Laterality Reference Set |

## Usage

| | |
|---|---|
| **Examples** | 1) Right<br>2) Left<br>3) Bilateral |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | SPECIFIC LOCATION | 0..1 |

# 4.10 Laterality Reference Set

## Identification

| | |
|---|---|
| **Label** | Laterality Reference Set |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16312 |
| **OID** | 1.2.36.1.2001.1001.101.104.16312 |
| **External Identifier** | SNOMED CT-AU Concept Id: 32570611000036103 |

## Definition

| | |
|---|---|
| **Definition** | The set of values for identifying the laterality of an anatomical location. |
| **Definition Source** | NEHTA |

## Value Domain

| | |
|---|---|
| **Source** | SNOMED CT-AU |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Side | 1..1 |

# 4.11 Numerical Identifier

## Identification

| | |
|---|---|
| **Label** | Numerical Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16338 |
| **OID** | 1.2.36.1.2001.1001.101.103.16338 |

## Definition

| | |
|---|---|
| **Definition** | An ordinal number that identifies the specific anatomical site from multiple sites. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodedText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[1] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL** be an ordinal number between first and eighteenth. |
| **Conditions of Use Source** | NEHTA |
| **Examples** | 1) First, as in 'first rib'.<br><br>2) Second, as in 'second toe'.<br><br>3) Third, as in 'third lumbar vertebra'. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | SPECIFIC LOCATION | 0..1 |

[1] http://www.hl7.org/oid/index.cfm

# 4.12 Anatomical Plane

## Identification

| | |
|---|---|
| **Label** | Anatomical Plane |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16340 |
| **OID** | 1.2.36.1.2001.1001.101.103.16340 |

## Definition

| | |
|---|---|
| **Definition** | Line describing the position of a vertical anatomical plane in the body. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodedText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[2] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Midline<br><br>2) Midclavicular<br><br>3) Midaxillary<br><br>4) Midscapular |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | SPECIFIC LOCATION | 0..1 |

[2] http://www.hl7.org/oid/index.cfm

# 4.13 RELATIVE LOCATION

## Identification

| | |
|---|---|
| **Label** | RELATIVE LOCATION |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16341 |
| **OID** | 1.2.36.1.2001.1001.101.102.16341 |

## Definition

| | |
|---|---|
| **Definition** | Qualifier(s) to identify a non-specific location. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | An example is: 5cm (distance) inferior (aspect) to the tibial tuberosity (landmark).<br><br>There may be more than one relative location required to provide a cross reference. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Body Part (ANATOMICAL LOCATION) | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Identified Landmark | 0..1 |
|  | Anatomical Location Aspect | 0..1 |
|  | Distance From Landmark | 0..1 |

# 4.14 Identified Landmark

## Identification

| | |
|---|---|
| **Label** | Identified Landmark |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16343 |
| **OID** | 1.2.36.1.2001.1001.101.103.16343 |

## Definition

| | |
|---|---|
| **Definition** | Identified anatomical landmark from which to specify the relative anatomical location. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[3] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodeableText. |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATIVE LOCATION | 0..1 |

[3] http://www.hl7.org/oid/index.cfm

# 4.15 Anatomical Location Aspect

## Identification

| | |
|---|---|
| **Label** | Anatomical Location Aspect |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16345 |
| **OID** | 1.2.36.1.2001.1001.101.103.16345 |

## Definition

| | |
|---|---|
| **Definition** | Qualifier to identify which direction the anatomical location is in relation to the identified landmark. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodedText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[4] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Medial to: Relative location medial to the landmark.<br><br>2) Lateral to: Relative location lateral to the landmark.<br><br>3) Superior to: Relative location superior to the landmark.<br><br>4) Inferior to: Relative location inferior to the landmark.<br><br>5) Anterior to: Relative location anterior to the landmark.<br><br>6) Posterior to: Relative location posterior to the landmark.<br><br>7) Below: Relative location below the landmark.<br><br>8) Above: Relative location above the landmark.<br><br>9) Inferolateral to: Relative location inferior and lateral to the landmark.<br><br>10) Superolateral to: Relative location superior and lateral to the landmark.<br><br>11) Inferomedial to: Relative location inferior and medial to the landmark.<br><br>12) Superomedial to: Relative location superior and medial to the landmark. |

[4] http://www.hl7.org/oid/index.cfm

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATIVE LOCATION | 0..1 |

# 4.16 Distance From Landmark

## Identification

| | |
|---|---|
| **Label** | Distance From Landmark |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16346 |
| **OID** | 1.2.36.1.2001.1001.101.103.16346 |

## Definition

| | |
|---|---|
| **Definition** | Distance of location from the identified landmark. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Quantity |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Quantity. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATIVE LOCATION | 0..1 |

# 4.17 Anatomical Location Description

## Identification

| | |
|---|---|
| **Label** | Anatomical Location Description |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16319 |
| **OID** | 1.2.36.1.2001.1001.101.103.16319 |

## Definition

| | |
|---|---|
| **Definition** | Description of the anatomical location. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Text. |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Body Part (ANATOMICAL LOCATION) | 0..* |

# 4.18 Visual Markings/Orientation

## Identification

| | |
|---|---|
| **Label** | Visual Markings/Orientation |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16407 |
| **OID** | 1.2.36.1.2001.1001.101.103.16407 |

## Definition

| | |
|---|---|
| **Definition** | Description of any visual markings used to orientate the viewer. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | 1) External reference points<br>2) Special sutures<br>3) Ink markings |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Body Part (ANATOMICAL LOCATION) | 0..* |

# 4.19 Anatomical Location Image

## Identification

| | |
|---|---|
| **Label** | Anatomical Location Image |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16199 |
| **OID** | 1.2.36.1.2001.1001.101.103.16199 |

## Definition

| | |
|---|---|
| **Definition** | An image or images used to identify a location. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Context** | This element is intended to be an image, e.g. a photo of the anatomical site such as a wound on the leg. |
| **Context Source** | NEHTA |
| **Data Type** | EncapsulatedData |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for EncapsulatedData. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Body Part (ANATOMICAL LOCATION) | 0..* |

# 4.20 CIRCUMFERENCE

## Identification

| | |
|---|---|
| **Label** | CIRCUMFERENCE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16330 |
| **OID** | 1.2.36.1.2001.1001.101.102.16330 |

## Definition

| | |
|---|---|
| **Definition** | The circumference of the specified body part, with reference range information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 1..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Circumference Value | 1..1 |
|  | Circumference Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 4.21 Circumference Value

## Identification

| | |
|---|---|
| **Label** | Circumference Value |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16330 |
| **OID** | 1.2.36.1.2001.1001.101.103.16330 |

## Definition

| | |
|---|---|
| **Definition** | The circumference of the body part. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Quantity |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Quantity. |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CIRCUMFERENCE | 1..1 |

# 4.22 REFERENCE RANGE DETAILS

## Identification

| | |
|---|---|
| **Label** | Circumference Reference Ranges |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16325 |
| **OID** | 1.2.36.1.2001.1001.101.102.16325 |

## Definition

| | |
|---|---|
| **Definition** | One or more reference ranges applicable to *Circumference Value*. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | A reference range is particular to the patient and context, e.g. sex, age, and any other factor that affects ranges.<br><br>May be used to represent normal, therapeutic, dangerous, critical and other such clinical ranges. |

## Usage

| | |
|---|---|
| **Conditions of Use** | At least one child of this data group **SHALL** be instantiated. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CIRCUMFERENCE | 0..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Normal Status | 0..1 |
|  | REFERENCE RANGE | 0..* |

# 4.23 Normal Status

## Identification

| | |
|---|---|
| **Label** | Normal Status |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11028 |
| **OID** | 1.2.36.1.2001.1001.101.103.11028 |

## Definition

| | |
|---|---|
| **Definition** | An indication of the degree of diagnostically significant abnormality of the value, based on available clinical information (including but not limited to the reference range). |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The term “normal” is **not** statistical normality, but rather what would normally be considered healthy for the individual concerned. As such, this `data element` represents the health risk for the individual, which is indicated by the observation or measurement and the nature and criticality of that health risk. |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[5] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Below normal<br><br>2) Above normal<br><br>3) Critically low<br><br>4) Critically high |

[5] http://www.hl7.org/oid/index.cfm

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Circumference Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 4.24 REFERENCE RANGE

## Identification

| | |
|---|---|
| **Label** | REFERENCE RANGE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-11024 |
| **OID** | 1.2.36.1.2001.1001.101.102.11024 |

## Definition

| | |
|---|---|
| **Definition** | A named range to be associated with any quantity datum. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The obligations on this data group imply that if this data group occurs only once, the *Reference Range* `data element` is optional, otherwise it is essential. |

## Usage

| | |
|---|---|
| **Conditions of Use** | If this data group occurs only once, its contents **SHALL** span the observed value.<br><br>If this data group occurs more than once, its contents **SHOULD** include all of the ranges in a single set.<br><br>If this data group occurs more than once, the *Reference Range* `data element` is **ESSENTIAL**.<br><br>All reference ranges **SHALL** come from the one set of reference ranges. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
| | Circumference Reference Ranges (REFERENCE RANGE DETAILS) | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
| | Reference Range Meaning | 1..1 |
| | Reference Range | 0..1 |

# 4.25 Reference Range Meaning

## Identification

| | |
|---|---|
| **Label** | Reference Range Meaning |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16574 |
| **OID** | 1.2.36.1.2001.1001.101.103.16574 |

## Definition

| | |
|---|---|
| **Definition** | Term whose value indicates the meaning of this range. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[6] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Normal<br><br>2) Critical<br><br>3) Therapeutic |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 1..1 |

[6] http://www.hl7.org/oid/index.cfm

# 4.26 Reference Range

## Identification

| | |
|---|---|
| **Label** | Reference Range |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11024 |
| **OID** | 1.2.36.1.2001.1001.101.103.11024 |

## Definition

| | |
|---|---|
| **Definition** | The data range for the associated *Reference Range Meaning* `data element`. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | QuantityRange |

## Usage

| | |
|---|---|
| **Examples** | 1) 15 - 58 g/L<br>2) < 15 mmol/L<br>3) 2.5 - 3.5 kg<br>4) 23 - 45 cm |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 0..1 |

# 4.27 Measurement Comment

## Identification

| | |
|---|---|
| **Label** | Comment |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15600 |
| **OID** | 1.2.36.1.2001.1001.101.103.15600 |

## Definition

| | |
|---|---|
| **Definition** | Additional comments relevant to the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Text. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 0..1 |

# 4.28 CONFOUNDING FACTOR

## Identification

| | |
|---|---|
| **Label** | CONFOUNDING FACTOR |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16051 |
| **OID** | 1.2.36.1.2001.1001.101.102.16051 |

## Definition

| | |
|---|---|
| **Definition** | An issue or factor of note that may have impacted on the measurement made during the examination. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Confounding Factor Name | 1..1 |
|  | Confounding Factor Value | 1..1 |

# 4.29 Confounding Factor Name

## Identification

| | |
|---|---|
| **Label** | Confounding Factor Name |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16950 |
| **OID** | 1.2.36.1.2001.1001.101.103.16950 |

## Definition

| | |
|---|---|
| **Definition** | The name of a confounding factor of an observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[7] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodeableText. |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CONFOUNDING FACTOR | 1..1 |

[7] http://www.hl7.org/oid/index.cfm

# 4.30 Confounding Factor Value

## Identification

| | |
|---|---|
| **Label** | Confounding Factor Value |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16955 |
| **OID** | 1.2.36.1.2001.1001.101.103.16955 |

## Definition

| | |
|---|---|
| **Definition** | The value of a confounding factor of an observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Typically values will be codes, measurements or text. Other types of value are possible. |
| **Data Type** | |

## Usage

| | |
|---|---|
| **Examples** | 1) Subject of care agitated and restless |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | CONFOUNDING FACTOR | 1..1 |

# 4.31 DEVICE

## Identification

| | |
|---|---|
| **Label** | DEVICE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | Description of the device used to measure the circumference of the body part. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Typically this will be a machine used by the information provider. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br><br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br><br>Additional obligation and occurrence constraints:<br><br>• Participation Period is **PROHIBITED**.<br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br>• ADDRESS is **PROHIBITED**.<br>• ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.<br>• ENTITLEMENT is **PROHIBITED**.<br>• Qualifications is **PROHIBITED**.<br><br>Other additional constraints:<br><br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Device”.<br>• Role **SHALL** have an implementation-specific value equivalent to “Not Applicable”.<br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a DEVICE. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 0..1 |

# 4.32 INFORMATION PROVIDER

## Identification

| | |
|---|---|
| **Label** | INFORMATION PROVIDER |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the identification of the source of the body part circumference information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This does not have to be a person and, in particular, does not have to be a healthcare provider. Types of sources include:<br>• the subject of care;<br>• a subject of care agent, e.g. parent, guardian;<br>• the clinician; and<br>• a device or software.<br>If a device makes the measurement and creates the observation record, the device is the information provider. If a person makes the measurement using a device and the person creates the observation record, the person is the information provider. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the provider of the information is not the *Composer/Author* of the enclosing Structured Document.<br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br>**Constraints applicable when the information provider is a person NOT acting as a healthcare provider.**<br>Additional obligation and occurrence constraints:<br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br>• EMPLOYMENT DETAIL is **PROHIBITED**.<br>• DEMOGRAPHIC DATA is **PROHIBITED**.<br>• ENTITLEMENT is **PROHIBITED**. |

- Qualifications is **PROHIBITED**.

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHOULD** have an implementation-specific value equivalent to “Authorised Representative” or “Nominated Representative”. However, other similar values **MAY** be appropriate.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.

**Constraints applicable when the information provider is a person acting as a healthcare provider.**

Additional obligation and occurrence constraints:

- LOCATION OF PARTICIPATION is **PROHIBITED**.
- Entity Identifier is **ESSENTIAL**.
- Relationship to Subject of Care is **PROHIBITED**.
- DEMOGRAPHIC DATA is **PROHIBITED**.

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification 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 is publicly available **MAY** be used.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.

**Constraints applicable when the information provider is a device.**

Additional obligation and occurrence constraints:

- LOCATION OF PARTICIPATION is **PROHIBITED**.
- ADDRESS is **PROHIBITED**.
- ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.
- ENTITLEMENT is **PROHIBITED**.
- Qualifications is **PROHIBITED**.

Other additional constraints:

- Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.
- Role **SHALL** have an implementation-specific value equivalent to “Not Applicable”.
- PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as DEVICE.
- ENTITLEMENT is **PROHIBITED**.
- Qualifications is **PROHIBITED**.

| | |
|---|---|
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 0..1 |

# 4.33 SUBJECT

## Identification

| | |
|---|---|
| **Label** | SUBJECT |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | The person about whom the body part circumference information is being recorded. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Scope** | Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed. |
| **Scope Source** | NEHTA |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the subject of the information is not the *Subject of Care* of the enclosing Structured Document.<br><br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br><br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br><br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Subject”.<br><br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 0..1 |

# 4.34 Observation DateTime

## Identification

| | |
|---|---|
| **Label** | Observation DateTime |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15561 |
| **OID** | 1.2.36.1.2001.1001.101.103.15561 |

## Definition

| | |
|---|---|
| **Definition** | Date, and optionally time, when an observation is clinically significant to the condition of the subject of the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | Clinically Significant DateTime<br>Effective DateTime |
| **Notes** | Associated with every observation of a subject are two different times that often, but not always, coincide, and are consequently often conflated: the time that the activity of observing occurred (the time the subject **was** observed, the *measuring time*), and the time that the subject was the way it looked (the time the subject was **as** observed, the *state time*.)<br><br>Generally, there is no delay between a person being in a state, and an observation of the person being in that state. For example, if a pulse of 72 bpm is recorded at 13:45 on 12 February 2015, one can assume that the heart rate was 72 bpm at that time. (Pulse is a surrogate for heart rate.) In such cases the *measuring time* and the *state time* are the same.<br><br>Sometimes, when there is a delay between the time the person is in a state and the time when they are measured, the delay is important. For example, if a sample is taken from a person and its testing is completed over a period of days, the test results will provide information about the state of the person at the time the sample was taken, not the time the test was completed.<br><br>The clinically significant time in all clinical observations is the time that the person was as observed, the *state time*. In observations involving specimens, the time that the specimen was taken is the closest practicable proxy for the *state time*.<br><br>The meaning of *Observation DateTime* is always the time that the person was **as** observed.<br><br>This approach follows that of openEHR. |
| **Data Type** | DateTime<br>TimeInterval |

## Usage

| | |
|---|---|
| **Examples** | Please see DateTime in Appendix B, *Specification Guide for Use* for examples and usage information on specifying a date or time (or both). |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 1..1 |

# 4.35 Body Part Circumference Instance Identifier

## Identification

| | |
|---|---|
| **Label** | Body Part Circumference Instance Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16811 |
| **OID** | 1.2.36.1.2001.1001.101.103.16811 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for each instance of a *Body Part Circumference* observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 0..1 |

# 4.36 RELATED INFORMATION

## Identification

| | |
|---|---|
| **Label** | RELATED INFORMATION |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16692 |
| **OID** | 1.2.36.1.2001.1001.101.102.16692 |

## Definition

| | |
|---|---|
| **Definition** | A link to another instance of a detailed clinical model (DCM) or a document containing instances of DCMs. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Links may be to structures inside the enclosing document or inside other documents. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Link Nature | 1..1 |
|  | Link Role | 0..1 |
|  | Target | 1..1 |

# 4.37 Link Nature

## Identification

| | |
|---|---|
| **Label** | Link Nature |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16698 |
| **OID** | 1.2.36.1.2001.1001.101.103.16698 |

## Definition

| | |
|---|---|
| **Definition** | The general semantic category of the relationship between this instance of this detailed clinical model (DCM), i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and receiver. |
| **Data Type** | CodedText |
| **Value Domain** | Link Nature Values |

## Usage

| | |
|---|---|
| **Examples** | 1) is related to<br>2) is confirmed by or authorised by<br>3) is related to the same problem or health issue |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 4.38 Link Nature Values

## Identification

| | |
|---|---|
| **Label** | Link Nature Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16698 |
| **OID** | 1.2.36.1.2001.1001.101.104.16698 |
| **External Identifier** | LINK_NATURE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the general semantic category of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | ISO 13606-3:2009 | |
| **Permissible Values** | The permissible values are those specified in Termlist LINK_NATURE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]*. They are listed here. | |
| | LINK-A0, is related to | A generic category for any Link, the details of which will be given by the value of Link Role. |
| | LINK-B0, is confirmed by or authorised by | The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a single [DCM instance or document]. |
| | LINK-C0, is related to the same problem or health issue | The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication. |
| | LINK-D0, is related to the same care plan, act or episode | The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both might be related milestones. |

| | | |
|---|---|---|
| | LINK-E0, is a related documentation | The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Link Nature | 1..1 |

# 4.39 Link Role

## Identification

| | |
|---|---|
| **Label** | Link Role |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16699 |
| **OID** | 1.2.36.1.2001.1001.101.103.16699 |

## Definition

| | |
|---|---|
| **Definition** | The detailed semantic description of the relationship between this instance of this DCM (i.e. the source), and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.<br><br>This attribute may be populated from any suitable terminology, and therefore might support human readership better than interoperable automated processing. |
| **Data Type** | CodeableText |
| **Value Domain** | Link Role Values |

## Usage

| | |
|---|---|
| **Examples** | 1) unspecified link<br>2) suggests<br>3) endorses<br>4) evidence for<br>5) outcome<br>6) is documented by<br>7) excerpts |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 0..1 |

# 4.40 Link Role Values

## Identification

| | |
|---|---|
| **Label** | Link Role Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16699 |
| **OID** | 1.2.36.1.2001.1001.101.104.16699 |
| **External Identifier** | LINK_ROLE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the detailed semantic description of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Context** | These values are used within the context of the value of the *Link Nature* `data element`. They provide greater specificity and may be selected more for human readership than for interoperable automated processing. |
| **Context Source** | NEHTA |

## Value Domain

| | |
|---|---|
| **Source** | ISO 13606-3:2009 |
| **Permissible Values** | Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].<br><br>Values **MAY** be from any suitable terminology.<br><br>Some values from Termlist LINK_ROLE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]* are: |

| | |
|---|---|
| LINK-A1, unspecified link | The term is used when no semantic information is available for this Link in the EHR system from which the EXTRACT has been created. |
| LINK-A2, suggests | The interpretation expressed in the target component is a possible cause or outcome of the findings documented in the source component. |
| LINK-B1, endorses | The interpretation expressed in the source component provides confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component. |
| LINK-C3, evidence for | The observation or interpretation documented in the source component provides confirmatory evidence of the interpretation expressed in the target component. |
| LINK-D1, outcome | The clinical situation documented in the target component is the direct outcome of the situation documented in the source component. |

| | | |
|---|---|---|
| | LINK-E1, documented by | A clinical situation documented in the source component is more formally documented in the target component. |
| | LINK-E4, excerpts | The source component is an extract (copy) of part or all of the information contained within the target component. |

# Usage

| | |
|---|---|
| **Conditions of Use** | Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-”. For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the *Link Role* `data element`, the appropriate corresponding value **SHALL** be used from *Link Nature Values*. |
| **Conditions of Use Source** | ISO 13606-3:2009 |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Link Role | 1..1 |

# 4.41 Target

## Identification

| | |
|---|---|
| **Label** | Target |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16700 |
| **OID** | 1.2.36.1.2001.1001.101.103.16700 |

## Definition

| | |
|---|---|
| **Definition** | The “linked to” or identified information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Link<br>UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Link, and UniqueIdentifier. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 4.42 Detailed Clinical Model Identifier

## Identification

| | |
|---|---|
| **Label** | Detailed Clinical Model Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16693 |
| **OID** | 1.2.36.1.2001.1001.101.103.16693 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for this detailed clinical model. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Conditions of Use** | The value of this item **SHALL** be either the default value or a semantically equivalent value from an appropriate code system. |
| **Conditions of Use Source** | NEHTA |
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |
| **Default Value** | 1.2.36.1.2001.1001.101.102.16808 |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY PART CIRCUMFERENCE | 1..1 |

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# 5 Body Mass Index Detailed Clinical Model

This chapter describes version 1.1 of the *Body Mass Index* Detailed Clinical Model (DCM).

## 5.1 Purpose

To record the body mass index (BMI) of a person. Body mass index is a calculated ratio describing how a person's body weight relates to the weight that is regarded as normal, or desirable, for the person's height.

## 5.2 Use

To be used for recording the BMI of adults and children.

To be used when entering BMI manually (i.e. calculated and directly entered by the clinician) or automatically (i.e. calculation and entry is performed, automatically, by the software application, based on separate height and weight measurements).

## 5.3 UML Class Diagram

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

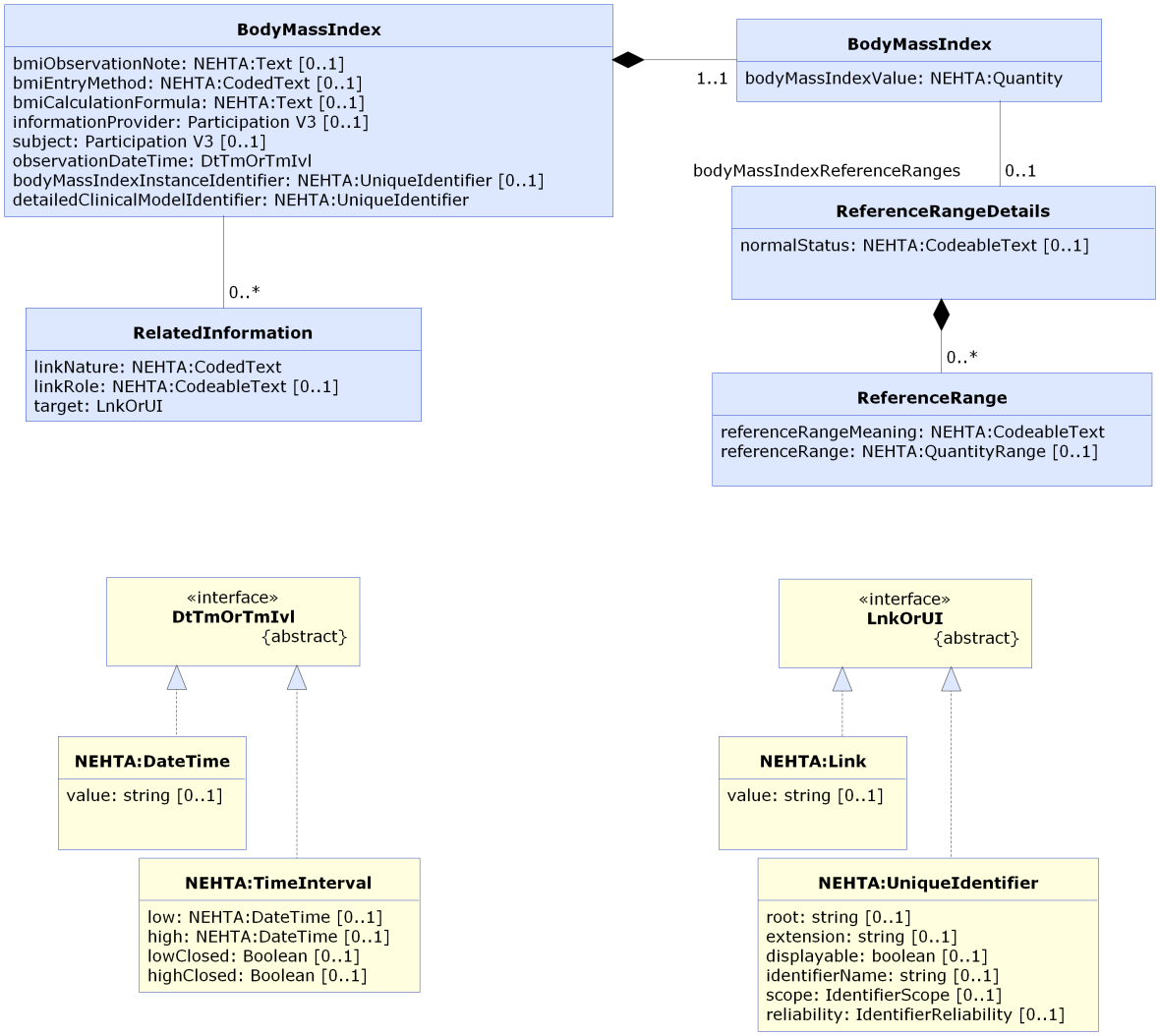


**Figure 5.1. Body Mass Index UML Class Diagram**

# 5.4 BODY MASS INDEX

## Identification

| | |
|---|---|
| **Label** | BODY MASS INDEX |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16856 |
| **OID** | 1.2.36.1.2001.1001.101.102.16856 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the physical measurement of the body mass index (BMI) of a person. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Data Hierarchy

### Note

Items below whose text is lighter (mid-blue and mid-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.

| | | | | | | |
|---|---|---|---|---|---|---|
| BODY MASS INDEX | | | | | | |
| | BODY MASS INDEX | | | | | 1..1 |
| | | Body Mass Index Value | | | | 1..1 |
| | | Body Mass Index Reference Ranges (REFERENCE RANGE DETAILS) | | | | 0..1 |
| | | | Normal Status | | | 0..1 |
| | | | REFERENCE RANGE | | | 0..* |
| | | | | Reference Range Meaning | | 1..1 |
| | | | | Reference Range | | 0..1 |
| | Comment (BMI Observation Note) | | | | | 0..1 |
| | Method (BMI Entry Method) | | | | | 0..1 |
| | Formula (BMI Calculation Formula) | | | | | 0..1 |

| | | | | |
|---|---|---|---|---|
| |  | INFORMATION PROVIDER | | 0..1 |
| |  | SUBJECT | | 0..1 |
| |  | Observation DateTime | | 1..1 |
| |  | Body Mass Index Instance Identifier | | 0..1 |
| |  | RELATED INFORMATION | | 0..* |
| | |  | Link Nature | 1..1 |
| | |  | Link Role | 0..1 |
| | |  | Target | 1..1 |
| |  | Detailed Clinical Model Identifier | | 1..1 |

# 5.5 BODY MASS INDEX

## Identification

| | |
|---|---|
| **Label** | BODY MASS INDEX |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16857 |
| **OID** | 1.2.36.1.2001.1001.101.102.16857 |

## Definition

| | |
|---|---|
| **Definition** | The body mass index of the person, with reference range information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 1..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Body Mass Index Value | 1..1 |
|  | Body Mass Index Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 5.6 Body Mass Index Value

## Identification

| | |
|---|---|
| **Label** | Body Mass Index Value |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16857 |
| **OID** | 1.2.36.1.2001.1001.101.103.16857 |

## Definition

| | |
|---|---|
| **Definition** | The body mass index of the person. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | BMI |
| **Data Type** | Quantity |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Quantity. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 1..1 |

# 5.7 REFERENCE RANGE DETAILS

## Identification

| | |
|---|---|
| **Label** | Body Mass Index Reference Ranges |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16325 |
| **OID** | 1.2.36.1.2001.1001.101.102.16325 |

## Definition

| | |
|---|---|
| **Definition** | One or more reference ranges applicable to *Body Mass Index Value*. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | A reference range is particular to the patient and context, e.g. sex, age, and any other factor that affects ranges.<br><br>May be used to represent normal, therapeutic, dangerous, critical and other such clinical ranges. |

## Usage

| | |
|---|---|
| **Conditions of Use** | At least one child of this data group **SHALL** be instantiated. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..1 |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Normal Status | 0..1 |
|  | REFERENCE RANGE | 0..* |

# 5.8 Normal Status

## Identification

| | |
|---|---|
| **Label** | Normal Status |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11028 |
| **OID** | 1.2.36.1.2001.1001.101.103.11028 |

## Definition

| | |
|---|---|
| **Definition** | An indication of the degree of diagnostically significant abnormality of the value, based on available clinical information (including but not limited to the reference range). |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The term “normal” is **not** statistical normality, but rather what would normally be considered healthy for the individual concerned. As such, this `data element` represents the health risk for the individual, which is indicated by the observation or measurement and the nature and criticality of that health risk. |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[1] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Below normal<br><br>2) Above normal<br><br>3) Critically low<br><br>4) Critically high |

[1] http://www.hl7.org/oid/index.cfm

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Body Mass Index Reference Ranges (REFERENCE RANGE DETAILS) | 0..1 |

# 5.9 REFERENCE RANGE

## Identification

| | |
|---|---|
| **Label** | REFERENCE RANGE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-11024 |
| **OID** | 1.2.36.1.2001.1001.101.102.11024 |

## Definition

| | |
|---|---|
| **Definition** | A named range to be associated with any quantity datum. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | The obligations on this data group imply that if this data group occurs only once, the *Reference Range* `data element` is optional, otherwise it is essential. |

## Usage

| | |
|---|---|
| **Conditions of Use** | If this data group occurs only once, its contents **SHALL** span the observed value.<br><br>If this data group occurs more than once, its contents **SHOULD** include all of the ranges in a single set.<br><br>If this data group occurs more than once, the *Reference Range* `data element` is **ESSENTIAL**.<br><br>All reference ranges **SHALL** come from the one set of reference ranges. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
| | Body Mass Index Reference Ranges (REFERENCE RANGE DETAILS) | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
| | Reference Range Meaning | 1..1 |
| | Reference Range | 0..1 |

# 5.10 Reference Range Meaning

## Identification

| | |
|---|---|
| **Label** | Reference Range Meaning |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16574 |
| **OID** | 1.2.36.1.2001.1001.101.103.16574 |

## Definition

| | |
|---|---|
| **Definition** | Term whose value indicates the meaning of this range. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | CodeableText |
| **Value Domain** | *Not specified.*<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure[2] with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

## Usage

| | |
|---|---|
| **Examples** | 1) Normal<br><br>2) Critical<br><br>3) Therapeutic |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 1..1 |

[2] http://www.hl7.org/oid/index.cfm

# 5.11 Reference Range

## Identification

| | |
|---|---|
| **Label** | Reference Range |
| **Metadata Type** | Data Element |
| **Identifier** | DE-11024 |
| **OID** | 1.2.36.1.2001.1001.101.103.11024 |

## Definition

| | |
|---|---|
| **Definition** | The data range for the associated *Reference Range Meaning* `data element`. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | QuantityRange |

## Usage

| | |
|---|---|
| **Examples** | 1) 15 - 58 g/L<br>2) < 15 mmol/L<br>3) 2.5 - 3.5 kg<br>4) 23 - 45 cm |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | REFERENCE RANGE | 0..1 |

# 5.12 BMI Observation Note

## Identification

| | |
|---|---|
| **Label** | Comment |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15600 |
| **OID** | 1.2.36.1.2001.1001.101.103.15600 |

## Definition

| | |
|---|---|
| **Definition** | Additional comments relevant to the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Text. |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..1 |

# 5.13 BMI Entry Method

## Identification

| | |
|---|---|
| **Label** | Method |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16859 |
| **OID** | 1.2.36.1.2001.1001.101.103.16859 |

## Definition

| | |
|---|---|
| **Definition** | The method of entering the body mass index. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This records whether the value was calculated and entered automatically without user intervention or was calculated and entered directly by user. |
| **Data Type** | CodedText |
| **Value Domain** | BMI Entry Method Values |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for CodedText. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..1 |

# 5.14 BMI Entry Method Values

## Identification

| | |
|---|---|
| **Label** | BMI Entry Method Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16858 |
| **OID** | 1.2.36.1.2001.1001.101.104.16858 |

## Definition

| | |
|---|---|
| **Definition** | The set of values of *BMI Entry Method*. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | OpenEHR | |
| **Permissible Values** | 1, Automatic entry | Body mass index calculated and entered automatically without user intervention. |
| | 2, Direct entry | Body mass index calculated and entered directly by user. |

# Relationships

**Parents**

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Method (BMI Entry Method) | 1..1 |

# 5.15 BMI Calculation Formula

## Identification

| | |
|---|---|
| **Label** | Formula |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16860 |
| **OID** | 1.2.36.1.2001.1001.101.103.16860 |

## Definition

| | |
|---|---|
| **Definition** | The formula used to calculate the body mass index. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Text |

## Usage

| | |
|---|---|
| **Examples** | 1) Body mass index is commonly calculated as weight (kg) / [height (m) squared]. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..1 |

# 5.16 INFORMATION PROVIDER

## Identification

| | |
|---|---|
| **Label** | INFORMATION PROVIDER |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | Details pertinent to the identification of the source of the body mass index information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This does not have to be a person and, in particular, does not have to be a healthcare provider. Types of sources include:<br>• the subject of care;<br>• a subject of care agent, e.g. parent, guardian;<br>• the clinician; and<br>• a device or software. |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the provider of the information is not the *Composer/Author* of the enclosing Structured Document.<br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br>**Constraints applicable when the information provider is a person NOT acting as a healthcare provider.**<br>Additional obligation and occurrence constraints:<br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br>• EMPLOYMENT DETAIL is **PROHIBITED**.<br>• DEMOGRAPHIC DATA is **PROHIBITED**.<br>• ENTITLEMENT is **PROHIBITED**.<br>• Qualifications is **PROHIBITED**.<br>Other additional constraints: |

| | |
|---|---|
| | • Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.<br>• Role **SHOULD** have an implementation-specific value equivalent to “Authorised Representative” or “Nominated Representative”. However, other similar values **MAY** be appropriate.<br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.<br>**Constraints applicable when the information provider is a person acting as a healthcare provider.**<br>Additional obligation and occurrence constraints:<br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br>• Entity Identifier is **ESSENTIAL**.<br>• Relationship to Subject of Care is **PROHIBITED**.<br>• DEMOGRAPHIC DATA is **PROHIBITED**.<br>Other additional constraints:<br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.<br>• Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification 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 is publicly available **MAY** be used.<br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as PERSON.<br>**Constraints applicable when the information provider is a device.**<br>Additional obligation and occurrence constraints:<br>• LOCATION OF PARTICIPATION is **PROHIBITED**.<br>• ADDRESS is **PROHIBITED**.<br>• ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.<br>• ENTITLEMENT is **PROHIBITED**.<br>• Qualifications is **PROHIBITED**.<br>Other additional constraints:<br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Information Provider”.<br>• Role **SHALL** have an implementation-specific value equivalent to “Not Applicable”.<br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as DEVICE.<br>• ENTITLEMENT is **PROHIBITED**.<br>• Qualifications is **PROHIBITED**. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..1 |

# 5.17 SUBJECT

## Identification

| | |
|---|---|
| **Label** | SUBJECT |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |
| **OID** | 1.2.36.1.2001.1001.101.102.10296 |

## Definition

| | |
|---|---|
| **Definition** | The person about whom the body mass index information is being recorded. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Scope** | Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed. |
| **Scope Source** | NEHTA |

## Usage

| | |
|---|---|
| **Conditions of Use** | This **SHALL NOT** be used unless the subject of the information is not the *Subject of Care* of the enclosing Structured Document.<br><br>This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*.<br><br>The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.<br><br>• Participation Type **SHALL** have an implementation-specific value equivalent to “Subject”.<br><br>• PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. |
| **Conditions of Use Source** | NEHTA |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..1 |

# 5.18 Observation DateTime

## Identification

| | |
|---|---|
| **Label** | Observation DateTime |
| **Metadata Type** | Data Element |
| **Identifier** | DE-15561 |
| **OID** | 1.2.36.1.2001.1001.101.103.15561 |

## Definition

| | |
|---|---|
| **Definition** | Date, and optionally time, when an observation is clinically significant to the condition of the subject of the observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | Clinically Significant DateTime<br>Effective DateTime |
| **Notes** | Associated with every observation of a subject are two different times that often, but not always, coincide, and are consequently often conflated: the time that the activity of observing occurred (the time the subject **was** observed, the *measuring time*), and the time that the subject was the way it looked (the time the subject was **as** observed, the *state time*.)<br><br>Generally, there is no delay between a person being in a state, and an observation of the person being in that state. For example, if a pulse of 72 bpm is recorded at 13:45 on 12 February 2015, one can assume that the heart rate was 72 bpm at that time. (Pulse is a surrogate for heart rate.) In such cases the *measuring time* and the *state time* are the same.<br><br>Sometimes, when there is a delay between the time the person is in a state and the time when they are measured, the delay is important. For example, if a sample is taken from a person and its testing is completed over a period of days, the test results will provide information about the state of the person at the time the sample was taken, not the time the test was completed.<br><br>The clinically significant time in all clinical observations is the time that the person was as observed, the *state time*. In observations involving specimens, the time that the specimen was taken is the closest practicable proxy for the *state time*.<br><br>The meaning of *Observation DateTime* is always the time that the person was **as** observed.<br><br>This approach follows that of openEHR. |
| **Data Type** | DateTime<br>TimeInterval |

## Usage

| | |
|---|---|
| **Examples** | Please see DateTime in Appendix B, *Specification Guide for Use* for examples and usage information on specifying a date or time (or both). |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 1..1 |

# 5.19 Body Mass Index Instance Identifier

## Identification

| | |
|---|---|
| **Label** | Body Mass Index Instance Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16863 |
| **OID** | 1.2.36.1.2001.1001.101.103.16863 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for each instance of a *Body Mass Index* observation. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |

# Relationships

**Parents**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..1 |

# 5.20 RELATED INFORMATION

## Identification

| | |
|---|---|
| **Label** | RELATED INFORMATION |
| **Metadata Type** | Data Group |
| **Identifier** | DG-16692 |
| **OID** | 1.2.36.1.2001.1001.101.102.16692 |

## Definition

| | |
|---|---|
| **Definition** | A link to another instance of a detailed clinical model (DCM) or a document containing instances of DCMs. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | Links may be to structures inside the enclosing document or inside other documents. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 0..* |

### Children

| Data Type | Name | Occurrences |
|---|---|---|
|  | Link Nature | 1..1 |
|  | Link Role | 0..1 |
|  | Target | 1..1 |

# 5.21 Link Nature

## Identification

| | |
|---|---|
| **Label** | Link Nature |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16698 |
| **OID** | 1.2.36.1.2001.1001.101.103.16698 |

## Definition

| | |
|---|---|
| **Definition** | The general semantic category of the relationship between this instance of this detailed clinical model (DCM), i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and receiver. |
| **Data Type** | CodedText |
| **Value Domain** | Link Nature Values |

## Usage

| | |
|---|---|
| **Examples** | 1) is related to<br>2) is confirmed by or authorised by<br>3) is related to the same problem or health issue |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 5.22 Link Nature Values

## Identification

| | |
|---|---|
| **Label** | Link Nature Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16698 |
| **OID** | 1.2.36.1.2001.1001.101.104.16698 |
| **External Identifier** | LINK_NATURE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the general semantic category of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |

## Value Domain

| | | |
|---|---|---|
| **Source** | ISO 13606-3:2009 | |
| **Permissible Values** | The permissible values are those specified in Termlist LINK_NATURE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]*. They are listed here. | |
| | LINK-A0, is related to | A generic category for any Link, the details of which will be given by the value of Link Role. |
| | LINK-B0, is confirmed by or authorised by | The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a single [DCM instance or document]. |
| | LINK-C0, is related to the same problem or health issue | The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication. |
| | LINK-D0, is related to the same care plan, act or episode | The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both might be related milestones. |

| | | |
|---|---|---|
| | LINK-E0, is a related documentation | The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | Link Nature | 1..1 |

# 5.23 Link Role

## Identification

| | |
|---|---|
| **Label** | Link Role |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16699 |
| **OID** | 1.2.36.1.2001.1001.101.103.16699 |

## Definition

| | |
|---|---|
| **Definition** | The detailed semantic description of the relationship between this instance of this DCM (i.e. the source), and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Notes** | This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.<br><br>This attribute may be populated from any suitable terminology, and therefore might support human readership better than interoperable automated processing. |
| **Data Type** | CodeableText |
| **Value Domain** | Link Role Values |

## Usage

| | |
|---|---|
| **Examples** | 1) unspecified link<br><br>2) suggests<br><br>3) endorses<br><br>4) evidence for<br><br>5) outcome<br><br>6) is documented by<br><br>7) excerpts |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 0..1 |

# 5.24 Link Role Values

## Identification

| | |
|---|---|
| **Label** | Link Role Values |
| **Metadata Type** | Value Domain |
| **Identifier** | VD-16699 |
| **OID** | 1.2.36.1.2001.1001.101.104.16699 |
| **External Identifier** | LINK_ROLE |

## Definition

| | |
|---|---|
| **Definition** | Set of values for the detailed semantic description of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document. |
| **Definition Source** | NEHTA |
| **Context** | These values are used within the context of the value of the *Link Nature* `data element`. They provide greater specificity and may be selected more for human readership than for interoperable automated processing. |
| **Context Source** | NEHTA |

## Value Domain

| | |
|---|---|
| **Source** | ISO 13606-3:2009 |
| **Permissible Values** | Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].<br><br>Values **MAY** be from any suitable terminology.<br><br>Some values from Termlist LINK_ROLE in *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]* are: |

| | |
|---|---|
| LINK-A1, unspecified link | The term is used when no semantic information is available for this Link in the EHR system from which the EXTRACT has been created. |
| LINK-A2, suggests | The interpretation expressed in the target component is a possible cause or outcome of the findings documented in the source component. |
| LINK-B1, endorses | The interpretation expressed in the source component provides confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component. |
| LINK-C3, evidence for | The observation or interpretation documented in the source component provides confirmatory evidence of the interpretation expressed in the target component. |
| LINK-D1, outcome | The clinical situation documented in the target component is the direct outcome of the situation documented in the source component. |

| | | |
|---|---|---|
| | LINK-E1, documented by | A clinical situation documented in the source component is more formally documented in the target component. |
| | LINK-E4, excerpts | The source component is an extract (copy) of part or all of the information contained within the target component. |

# Usage

| | |
|---|---|
| **Conditions of Use** | Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-”. For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the *Link Role* `data element`, the appropriate corresponding value **SHALL** be used from *Link Nature Values*. |
| **Conditions of Use Source** | ISO 13606-3:2009 |

# Relationships

### Parents

| Data Type | Name | **Occurrences** (child within parent) |
|---|---|---|
|  | Link Role | 1..1 |

# 5.25 Target

## Identification

| | |
|---|---|
| **Label** | Target |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16700 |
| **OID** | 1.2.36.1.2001.1001.101.103.16700 |

## Definition

| | |
|---|---|
| **Definition** | The “linked to” or identified information. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | Link<br>UniqueIdentifier |

## Usage

| | |
|---|---|
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for Link, and UniqueIdentifier. |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | RELATED INFORMATION | 1..1 |

# 5.26 Detailed Clinical Model Identifier

## Identification

| | |
|---|---|
| **Label** | Detailed Clinical Model Identifier |
| **Metadata Type** | Data Element |
| **Identifier** | DE-16693 |
| **OID** | 1.2.36.1.2001.1001.101.103.16693 |

## Definition

| | |
|---|---|
| **Definition** | A globally unique identifier for this detailed clinical model. |
| **Definition Source** | NEHTA |
| **Synonymous Names** | |
| **Data Type** | UniqueIdentifier |

## Usage

| | |
|---|---|
| **Conditions of Use** | The value of this item **SHALL** be either the default value or a semantically equivalent value from an appropriate code system. |
| **Conditions of Use Source** | NEHTA |
| **Examples** | Please see Appendix B, *Specification Guide for Use* for examples and usage information for UniqueIdentifier. |
| **Default Value** | 1.2.36.1.2001.1001.101.102.16856 |

# Relationships

### Parents

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
|  | BODY MASS INDEX | 1..1 |

# Appendix A. Known Issues

This appendix lists known issues with this specification at the time of publishing. NEHTA is working on solutions to these issues, and we encourage comments to further assist with the development of these solutions.

| Reference | Description |
|---|---|
| Links to external resources | If a link (usually in references section) spans several lines, certain PDF readers have problems opening it. |
| Data Hierarchy | This Detailed Clinical Model (DCM) has not yet been fully mapped to HL7 CDA. Mapping to CDA may reveal inconsistencies, in the data hierarchy requiring normative change. |
| Continuous Improvement | In the Detailed Clinical Models (DCM) defined in this document only those data components that are currently used in NEHTA Structure Content Specifications (SCS) have been reviewed and revised for this publication. A more extensive review will be undertaken in the future. |
| UML Class Diagrams | The representation of data component names and labels with stereotypes and names is not good UML practice. It will be changed when a diagramming tool that supports an appropriate representation is adopted by NEHTA. |
| Approximate value indicator for measurements | No method is provided to indicate that a measurement, such as *Circumference Value*, has an approximate value although the data type *Quantity* does allow an uncertainty to be included. |
| Reference Range Details data components | There is no method provided to group reference ranges, nor is one provided to identify the source of a reference range. For example, if both WHO (World Health Organization) and RACGP (Royal Australian College of General Practitioners) percentile ranges are included, there is no good way to separate the entries for the different ranges. |
| Undefined Value Domains | The following data elements lack a defined value domain: *Normal Status*, *Reference Range Meaning*, *Confounding Factor Name*, *Numerical Identifier*, *Anatomical Plane*, *Identified Landmark*, *Anatomical Location Aspect*.<br><br>NEHTA is in the process of developing national code sets for these items. In the meantime, you are free to use your own code set(s), providing any code set used **SHALL** be registered, i.e. registered through the HL7 code set registration procedure with an appropriate object identifier (OID), and **SHALL** be publicly available. Note that when national standard code set(s) do become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. |

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# Appendix B. Specification Guide for Use

## B.1 Overview

Each detailed clinical model (DCM) and structured content specification (SCS) is designed to be a shared basis for data interpretation. It specifies rigorous business and technical definitions of data which systems may need to share. It is intended to be a logical specification of the data to be persisted within or communicated between systems. It is also the foundation for the compliance, conformance, and declaration process. NEHTA's CDA implementation guides are guides to the implementation of HL7 CDA R2 messages based upon these DCMs and SCSs.

Each DCM specifies all of the data components required for any use of a clinical concept; for instance, an entry in a medical record such as a procedure or an imaging test. As such, they are maximal data sets. DCMs are building blocks which are trimmed to size for use in the construction of SCSs.

Each SCS describes a template of a Structured Document. It specifies the data for a single type of clinical document or information exchange, such as a discharge summary. It is assembled using DCMs that have been constrained to eliminate data components not relevant to the particular context. For example, *Procedure* in a discharge summary uses only some of the data components required by *Procedure* in a specialist report.

## B.2 The Structured Content Specification Metamodel

The NEHTA metamodel for sructured content specifications (see Figure 1) is used to specify the overall structure of a structured content specification. The structure is a tree, so every item in the tree, other than the root node, has a parent node. For an SCS, the root node is a Structured Document. For a DCM, the root node is a Data Group.

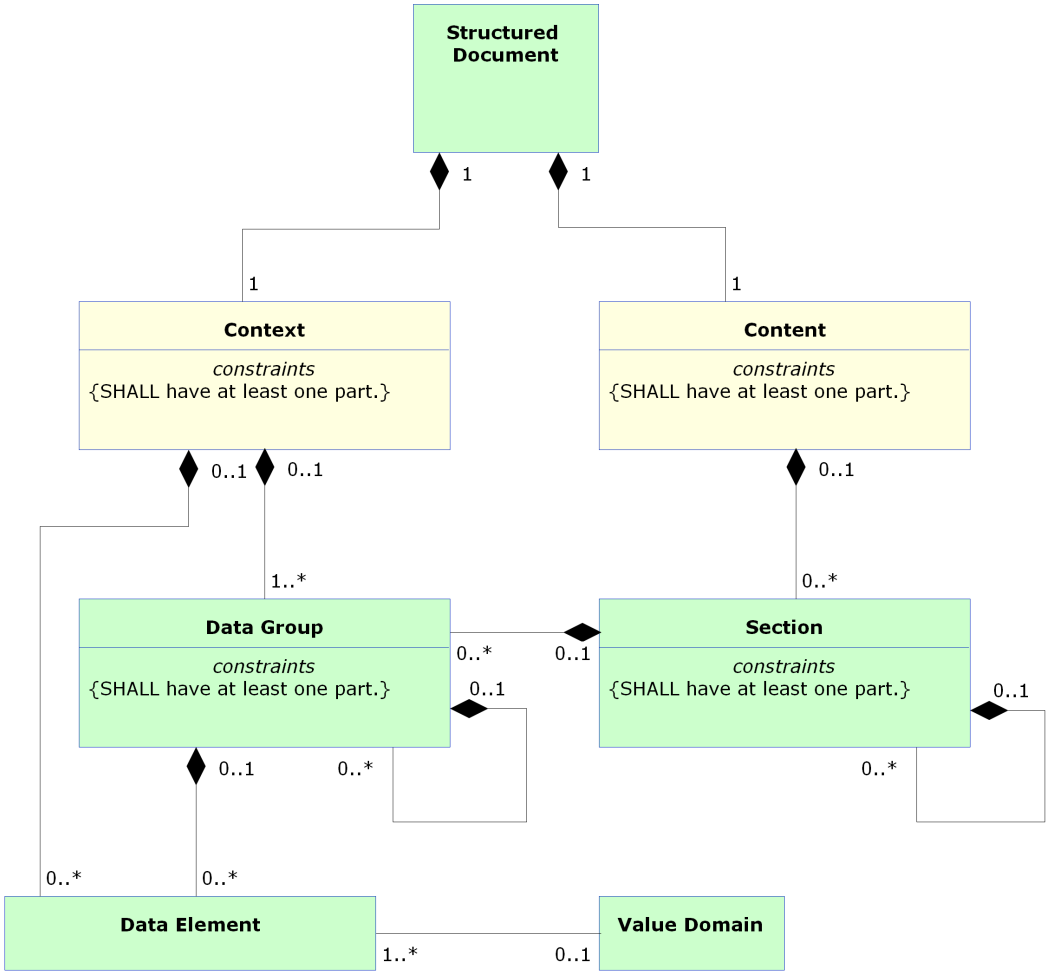


**Figure 1: SCS Metamodel**

There are two main items used to organise information within an SCS as follows:

Context: This contains information related to the overall context of the document.

Content: This contains information that changes between different SCSs, but is always structured as shown in Figure 1, and consists of the following data components:

- Section
- Data Group
- Data Element
- Value Domain

These data components are described in more detail below.

# Structured Document

A structured document is a collection of health information about a subject of care that is relevant to the ongoing care of that person. They are composed of one or more data groups and data elements that are organised into

sections. Examples of structured documents are *Discharge Summary*, *Shared Health Summary*, and *Advance Care Directive Custodian Record*.

# Context

The purpose of the context is to identify and classify the document and to provide subjects of care and involved healthcare providers with the information related to the relevant healthcare events.

# Content

Content contains a collection of personal information and health information pertinent to a subject of care which is derived from the healthcare event described in the document. The detail is organised into one or more data groups which are optionally grouped into sections.

# Section

A section is composed of other sections, data groups, or both. It is an organising container that gives the reader a clue as to the expected content. A section organises information in a manner suitable for the primary purpose for which it is collected and provides a way to navigate through the data components within the document, thereby enabling more efficient querying. It is recommended that the section support safe reuse for secondary purposes, e.g. clinical coding or inclusion in a summarised form in an electronic health record. A section is context-specific to the document in which it resides.

# Data Group

Each data group is used to represent one concept. A data group consists of other data groups, data elements, or both. Some data groups are reused across DCMs.

Every instance of a data group **SHALL** have at least one child data component instantiated.

## Participation

Participation is a special case of a data group that is based on a data group template, which is reused throughout the DCMs and SCSs. Participations are an amalgam of the Actors (see below) operating within a defined healthcare domain and the Roles they are playing within that domain.

A Participant has been defined to align with the concepts of NEHTA's *Interoperability Framework [NEHT2007b]*. It equates to an *Entity* that is related to the action described in an SCS as an *Actor*. A Participant can be a human, an organisation, or an IT system.

NEHTA's *Participation Data Specification [NEHT2011v]* defines the full Participation specification.

# Choice

Choice represents a selection, to be made at run-time, of a single member from a set of data groups, where the set is defined at design-time, i.e. one and only one member of the set is chosen for each instance of the choice.

For example, at design-time a healthcare provider provides a service, but it is not until run-time that a decision can be made as to whether the provider is a person or an organisation. Hence, when a healthcare provider *Participant* is instantiated, it will contain either an instance of the *Person* data group or an instance of the *Organisation* data group.

# Data Element

A data element is the smallest named unit of information in the model that can be assigned a value. For example, *DateTime of Observation* and *Observation Note*. Data elements are bound to data types (see Data Types Legend). Some data elements are reused in different data groups.

While all data elements are constrained by their data type, some data elements are further constrained by value domains (see Value Domain below).

# Value Domain

A value domain constrains the permissible values for a data element. The values are often a subset of values based on a generic data type.

Value domains are reusable items, therefore the same value domain can be referred to by different data elements in different contexts. Value domains are often specified with reference to a *reference set*. A reference set is a constrained list of SNOMED CT-AU concepts that are appropriate to a particular context or use. Since many of these reference sets have been developed specifically for the context in which they appear, it is recommended that an assessment of fitness for purpose be undertaken before using any of the reference sets in another context.

Value domains constrain either by specifying a lower or upper bound (or both) on the range of permissible values or by specifying a finite set of prescribed values. Such a set of prescribed values can be specified directly within the definition of the data element, or in a separate but associated specification, or else by reference to one or more vocabulary or terminology reference sets. The table below provides some examples of value domains.

**Table 1: Value Domain Examples**

<table>
<tr><th>Data Element</th><th>Data Type</th><th>Example of Value Domain</th></tr>
<tr><td>Sex</td><td>CodedText</td><td>Standards Australia AS 4846 (2006) – Health Care Provider Identification [SA2006a] and Standards Australia AS 5017 (2006) – Health Care Client Identification [SA2006b] derive their values from METeOR 287316 which includes values such as:<br><br><table><tr><th>Value</th><th>Meaning</th></tr><tr><td>1</td><td>Male</td></tr><tr><td>2</td><td>Female</td></tr><tr><td>3</td><td>Intersex or Indeterminate</td></tr><tr><td>9</td><td>Not Stated/Inadequately Described</td></tr></table></td></tr>
<tr><td>Diagnosis</td><td>CodeableText</td><td>A SNOMED CT-AU reference set which references concepts such as “Bronchitis” (Concept ID: 32398004).</td></tr>
<tr><td>Therapeutic Good Identification</td><td>CodeableText</td><td>An AMT reference set which references concepts such as “Ibuprofen Blue (Herron) (ibuprofen 200 mg) tablet: film-coated, 1 tablet” (Concept ID: 54363011000036107).</td></tr>
<tr><td>Individual Pathology Test Result Name</td><td>CodeableText</td><td>A LOINC subset which references concepts such as “Cholesterol [Moles/volume] in Serum or Plasma” (ID: 14647-2).</td></tr>
</table>

# B.3 Icon Legend

These legends describe all icons that are used in NEHTA's DCMs and SCSs.

# Metadata Types Legend

The following table explains each of the icons used to represent the metadata types within DCMs and SCSs.

**Table 2: Metadata Types Legend**

| Icon | Metadata Types |
|---|---|
|  | Structured Document |
|  | Section |
|  | Data Group |
|  | Participation |
|  | Choice |

# Data Types Legend

The following table explains each of the icons used to represent the data types bound to each data element in the SCSs. These data types are a profile of the **ISO 21090-2011** data types as specified in *Data Types in NEHTA Specifications: A Profile of the ISO 21090 Specification [NEHT2010c]*.

**Table 3: Data Types Legend**

| Icon | Data type | Explanation |
|---|---|---|
|  | Any<br><br>(ISO 21090: ANY) | Use of this icon indicates that the data type to be used is conditional on another data component.<br><br>The values that can be required will vary considerably depending on the context. This is an abstract data type that is the basis for all data types and **SHOULD NOT** be used in an actual implementation. |
|  | Boolean<br><br>(ISO 21090: BL) | A data type, sometimes called the logical data type, having one of the two values: *true* and *false*.<br><br>Many systems represent true as *non-zero* (often 1, or -1) and false as *zero*.<br><br>**Usage/Examples**<br><br>• An actual value entered by a user might be “yes” or could be chosen by a mouse click on an icon such as ☑. |

CodeableText

(ISO 21090: CD)

Coded text *with* exceptions; supports various ways of holding text, both free text and coded text.

Often used to support compliance for early adopters of the structured content specifications.

While it is recommended that the values in this data type come from the bound value domain, it allows other value domains to also be used (with or without translations to the bound value domain) or free text alternatives. This is useful when it is not possible to define an entire value domain for a complex concept (e.g. *Diagnosis*) and when there are competing code sets in existence. Note that within exchange specifications or message profiles this data type **MAY** be constrained to mandate compliance with the bound value domain.

**Usage/Examples**

- The Australian Institute of Health and Welfare (AIHW) defines a data element concept *Episode of admitted patient care-separation mode* (the status at separation of a subject of care and the place to which they are released). An early adopter could have a similar concept (coded or otherwise) that maps to this data element but does not strictly comply with the AIHW values.
- A SNOMED CT-AU coded/complex expression that embodies single or multiple concepts. The SNOMED CT-AU concepts behind these CodeableText data elements are specified in the structured content specification value domains.

CodedText

(ISO 21090: CD)

Coded text *without* exceptions; text with code mappings. Values in this data type **SHALL** come from the bound value domain, with no exceptions.

Often used for reference sets with only a small number of applicable values, e.g. Gender and Document Status.

**Usage/Examples**

*Standards Australia AS 5017 (2006) – Health Care Client Identification [SA2006b]* specifies the following value domain representing a type of address:

| Value | Meaning |
|---|---|
| 1 | Business |
| 2 | Mailing or Postal |
| 3 | Temporary Accommodation |
| 4 | Residential (permanent) |
| 9 | Not Stated/Unknown/Inadequately Described |

DateTime

(ISO 21090: TS)

A single date, optionally with a time of day.

Has the ability to indicate a level of precision, but not whether the date or time is estimated. Cannot represent a time alone.

String representations of known dates **SHALL** conform to the format within the **ISO 21090-2011** standard without the use of extensions, i.e. YYYY[MM[DD[HH[MM[SS[.U[U[U[U]]]]]]]]][+|-ZZzz].

**Usage/Examples**

- Partial dates: 2008, 20081001.
- To indicate 1:20 pm on May the 31st, 1999 for a time zone which is 10 hours ahead of Coordinated Universal Time (UTC): 19990531132000+1000.

| | |
|---|---|
|  Duration<br><br>(ISO 21090: PQ.TIME) | The period of time during which something continues.<br><br>Consists of a value and a unit which represents the time value, e.g. hours, months.<br><br>Compound durations are not allowed, e.g. 10 days 3 weeks 5 hours.<br><br>**Usage/Examples**<br><br>• 3 hours<br><br>• 6 months<br><br>• 1 year |
|  EncapsulatedData<br><br>(ISO 21090: ED) | Data that is primarily intended for human interpretation or for further machine processing outside the scope of this specification. This includes unformatted or formatted written language, multimedia data, or structured information as defined by a different standard (e.g. XML signatures).<br><br>**Usage/Examples**<br><br>• JPEG images<br><br>• HTML documents<br><br>• [RFC1521] MIME types |
|  Integer<br><br>(ISO 21090: INT) | The mathematical data type comprising the exact integral values.<br><br>**Usage/Examples**<br><br>• 1<br><br>• -50<br><br>• 125 |
|  Link<br><br>(ISO 21090: TEL) | A general link, reference or pointer to an object, data or application that exists logically or is stored electronically in a computer system.<br><br>**Usage/Examples**<br><br>• URL (Uniform Resource Locator) – the World Wide Web address of a site on the internet, such as the URL for the Google internet search engine – *http://www.google.com*.<br><br>• An absolute or relative path within a file or directory structure – e.g. in the Windows operating system, the “link” or absolute path to a particular letter could be *C:\Documents and Settings\GuestUser\MyDocuments\letter.doc* |
|  Quantity<br><br>(ISO 21090: PQ) | A magnitude value with a unit of measurement.<br><br>This is used for recording many real world measurements and observations. As the default unit of measure is 1, even counts of items can be recorded with *Quantity*.<br><br>**Usage/Examples**<br><br>• 100 centimetres<br><br>• 25.5 grams |

| | |
|---|---|
|  QuantityRange<br><br>(ISO 21090: IVL) | A range of *Quantity* values.<br><br>It may be identified using a combination of an optional minimum *Quantity* and an optional maximum *Quantity* (i.e. lower and upper bounds).<br><br>This is typically used for defining the valid range of values for a particular measurement or observation. Unbounded quantity ranges can be identified by not including a minimum or a maximum *Quantity* value.<br><br>**Usage/Examples**<br><br>• -20 to 100 Celsius<br><br>• 30-50 mg<br><br>• >10 kg |
|  QuantityRatio<br><br>(ISO 21090: RTO) | A relative magnitude of two *Quantity* values.<br><br>Usually recorded as numerator and denominator.<br><br>**Usage/Examples**<br><br>• 25 mg / 500 ml<br><br>• 200 mmol per litre |
|  Real<br><br>(ISO 21090: REAL) | A computational approximation to the standard mathematical concept of real numbers.<br><br>These are often called floating-point numbers.<br><br>**Usage/Examples**<br><br>• 1.075<br><br>• -325.1<br><br>• 3.14157 |
|  Text<br><br>(ISO 21090: ST) | A character string (with optional language) containing any combination of alpha, numeric, or symbols from the Unicode character set. Also referred to as *free text*.<br><br>**Usage/Examples**<br><br>“The patient is a 37 year old man who was referred for cardiac evaluation after complaining of occasional palpitations, racing heart beats and occasional dizziness.” |
|  TimeInterval<br><br>(ISO 21090:IVL) | An interval in time.<br><br>It is identified using a combination of an optional start *DateTime*, an optional end *DateTime*, and an optional *Duration*.<br><br>**Usage/Examples**<br><br>• 20080101+1000 - 20081231+1000<br><br>• 200801010130+1000 - 200801011800+1000<br><br>• 200801010130+1000, duration=16.5 hours |

| | | |
|---|---|---|
|  | UniqueIdentifier<br><br>(ISO 21090: II) | A unique value used to identify a physical or virtual object or concept.<br><br>In using this data type, the attributes of the UniqueIdentifier data type **SHOULD** be populated from the identifiers as defined in *AS 4846 (2006) – Health Care Provider Identification [SA2006a]* and *AS 5017 (2006) – Health Care Client Identification [SA2006b]* as follows:<br><br>• *root*: a globally unique object identifier that identifies the combination of geographic area, issuer and type. If no such globally unique object identifier exists, it **SHALL** be created.<br><br>• *extension*: a unique identifier within the scope of the root that is directly equivalent to the identifier designation element.<br><br>• *identifierName*: a human readable name for the namespace represented by the root that is populated with the issuer or identifier type values, or a concatenation of both, as appropriate. The content of this attribute is not intended for machine processing and **SHOULD NOT** be used for that purpose.<br><br>• *identifierScope*: the geographic span or coverage that applies to or constrains the identifier. It is directly equivalent to the geographic area element. The content of this attribute is not intended for machine processing and **SHOULD NOT** be used as such.<br><br>Also, the following constraints apply on the UniqueIdentifier data type:<br><br>1) The *root* attribute **SHALL** be used.<br><br>2) For an Entity Identifier, the *root* attribute **SHALL** be an OID that consists of a node in a hierarchically assigned namespace, formally defined using the ITU-T's ASN.1 standard.<br><br>3) For an Entity Identifier, the *root* attribute **SHALL NOT** be a UUID.<br><br>4) The *extension* attribute **SHALL** be used.<br><br>**Usage/Examples**<br><br>Australian health identifiers (e.g. IHI, HPI-I and HPI-O) and patient hospital medical record numbers are examples of identifiers that may be carried by data elements of this data type. |

# Keywords Legend

Where used in this document and in DCMs and SCSs, 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]*. NEHTA specifications use the terms **SHALL** in place of “MUST” and **SHALL NOT** in place of “MUST NOT”. The key word definitions in RFC 2119, adjusted to remove the key words not used in NEHTA specifications, are presented in the following table.

**Table 4: Keywords Legend**

| Keyword | Definition |
|---|---|
| **SHALL** | This word means that the statement is an absolute requirement of the specification. |
| **SHOULD** | This word means that there may exist valid reasons in particular circumstances to ignore a particular data component, but the full implications must be understood and carefully weighed before choosing a different course. |

| | |
|---|---|
| **MAY** | This word means that a data component is truly optional. One implementer may choose to include the data component because a particular implementation requires it, or because the implementer determines that it enhances the implementation, while another implementer may omit the same data component. An implementation that does not include a particular option shall be prepared to interoperate with another implementation that does include the option, perhaps with reduced functionality. In the same vein, an implementation that does include a particular option shall be prepared to interoperate with another implementation that 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. |
| **SHOULD NOT** | This phrase means that there may exist valid reasons in particular circumstances 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. |

# Obligation Legend

In DCMs and SCSs obligations on a data component specify whether or not it **SHALL** be populated in the logical record architecture of a message. NEHTA intends that all data components that are not **PROHIBITED** will be implemented.

Obligations in statements about values specify whether or not certain values are permitted.

Implementation guides specify the rules and formats for implementing and populating data components in specific messaging formats.

The following table defines the obligations.

**Table 5: Obligations Legend**

| Keyword | Interpretation |
|---|---|
| **ESSENTIAL** | Indicates that the data component is considered a mandatory item of information and **SHALL** be populated.<br><br>**Usage/Examples:**<br><br>The Participant data component for a Subject of Care **SHALL** include an Entity Identifier data component in order to hold the IHI. |
| **OPTIONAL** | Indicates that the data component is not considered a mandatory item of information and **MAY** be populated.<br><br>**Usage/Examples:**<br><br>Such data components will be implemented, only inclusion and population are optional.<br><br>This is only needed when a DCM incorrectly asserts that a data component is **ESSENTIAL**. It will be used with a note stating that the DCM needs revision. |
| **PROHIBITED** | On a data component this indicates that the data component is considered a forbidden item of information and **SHALL NOT** be included.<br><br>In a statement about values this indicates that the use of the specified values is considered forbidden and they **SHALL NOT** be used.<br><br>**Usage/Examples:**<br><br>Within a Participation data group depicting a Subject of Care, the Participation Healthcare Role **SHALL NOT** be populated. |

| | |
|---|---|
| **CONDITIONAL** | Indicates that a data component is considered **ESSENTIAL** only on satisfaction of a given condition. Individual data components specify the obligation of the data component when the condition is not met.<br><br>When a condition is met, the data component is considered to be **ESSENTIAL** and **SHALL** be populated.<br><br>When a condition is not met, the data component may be considered as **PROHIBITED**, or the data component may be considered **OPTIONAL**.<br><br>**Usage/Examples:**<br><br>Within a Pathology Result Report, the *Specimen Detail* `data group` is **ESSENTIAL** if the requested test is to be performed on a specimen; otherwise it **SHALL NOT** be included. |

Obligations follow the usual scope rules: where **ESSENTIAL** child data components are contained within **OPTIONAL** parent data components, the child data components **SHALL NOT** be included when the parent is not included.

# B.4 Abnormal and Absent Values

Occasionally a data element will have an abnormal value (i.e. the value cannot be described using the expected set of values) or an absent value (i.e. no value is provided).

The commonly used implementation specifications ISO 21090 and HL7 CDA R2 use *nullFlavor* to manage absent and abnormal values.

The following table provides a classification of nullFlavor values as absent or abnormal.

**Table 6: Classification of ISO 21090 nullFlavor values as Absent or Abnormal**

| Level | Code | Term | Absent | Abnormal |
|---|---|---|---|---|
| 1 | NI | No information | Absent | |
| 2 | INV | Invalid | | Abnormal |
| 3 | OTH | Other | | Abnormal |
| 4 | PINF | Positive infinity | | Abnormal |
| 4 | NINF | Negative infinity | | Abnormal |
| 3 | UNC | Unencoded | | Abnormal |
| 3 | DER | Derived | | Abnormal |
| 2 | UNK | Unknown | Absent | |
| 3 | ASKU | Asked but unknown | Absent | |
| 4 | NAV | Temporarily unavailable | Absent | |
| 3 | NASK | Not asked | Absent | |
| 3 | QS | Sufficient quantity | | Abnormal |
| 3 | TRC | Trace | | Abnormal |
| 2 | MSK | Masked | Absent | |
| 2 | NA | Not applicable | Absent | |

# B.5 Information Model Specification Parts Legends

This section illustrates the format and parts used to define each section, data group and data element within NEHTA's DCMs and SCSs, and identifies when each part is applicable.

## Chapter Name

Each section, data group, data element, value domain or choice has its own eponymous chapter. The chapter name is used in all data hierarchies.

## Identification Section Legend

The following table illustrates the layout of the Identification section and describes the various parts of the section.

**Table 7: Identification Section Legend**

| | |
|---|---|
| **Label** | A suggested display name for the data component. |
| **Metadata Type** | The type of the data component, e.g. section, data group or data element. |
| **Identifier** | A NEHTA-assigned internal identifier of the data component.<br><br>Note that if one data component is used twice (e.g. *Therapeutic Good Identification* is used in both *Medication Instruction* and *Medication Action*), both uses of the data component will have the same identifier. A data component identifier identifies a data component, not a **use** of a data component. |
| **OID** | An object identifier equivalent to the data component identifier. |
| **External Identifier** | An identifier of the concept represented by the data component that is assigned by an organisation other than NEHTA. |

## Definition Section Legend

The following table illustrates the layout of the Definition section and describes the various parts of the section.

**Table 8: Definition Section Legend**

| | |
|---|---|
| **Definition** | The meaning, description or explanation of the data component.<br><br>For data groups used in a particular context, the definition **MAY** be a refinement of the generic data group definition. |
| **Definition Source** | The authoritative source for the Definition statement. |
| **Synonymous Names** | A list of any names the data component may also be known as.<br><br>Implementers may prefer to use synonymous names to refer to the data component in specific contexts. |
| **Scope** | Situations in which the data component may be used, including the Scope circumstances where specified data are required or recommended.<br><br>For example, Medication Instruction (data group) has a scope that includes all prescribable therapeutic goods, both medicines and non-medicines. |

| | |
|---|---|
| | This item is not relevant to data elements or value domains. |
| **Scope Source** | The authoritative source for the Scope statement. |
| **Context** | The environment in which the data component is meaningful, i.e. the circumstance, purpose and perspective under which this data component is defined or used.<br><br>For example, Street Name has a context of Address.<br><br>This item is applicable only to data elements. |
| **Assumptions** | Suppositions and notions used in defining the data component. |
| **Assumptions Source** | The authoritative source for the Assumptions statement. |
| **Notes** | Informative text that further describes the data component, or assists in the understanding of how the data component can be used. |
| **Notes Source** | The authoritative source for the Notes statement. |
| **Data Type** | The data type (or data types) of the data element, e.g. DateTime or Text.<br><br>The valid data types are specified in the Data Types Legend.<br><br>This item is applicable only to data elements. |
| **Value Domain** | The name of the Value Domain used to define the range of values of the data element, or a statement describing what values to use in the absence of a defined value domain for the related data element.<br><br>The statement is:<br><br>In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure with an appropriate object identifier (OID), and **SHALL** be publicly available.<br><br>When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.<br><br>This item is applicable only to data elements with data type CodedText or CodeableText. |

# Data Hierarchy

The top-level data components (a Structured Document in an SCS or Data Groups in a DCM) contain a data hierarchy. Each row contains information about a single data component. The entries are nested to represent inclusion of one data component in another. Each entry contains at least three occupied cells. The left-most cell contains an icon to indicate the entry's data type. The next cell to the right contains the label of the data component (if the label is different from the name, the name is displayed in brackets after the label). The next cell to the right contains the multiplicity range for the data component.

If a row is shaded grey, this indicates that the data component **SHOULD NOT** be used. This will be because analysis of requirements either did not find reasons to use it or found reasons to not use it.

If the text in a row is in a ~~strike through~~ font and the multiplicity is 0..0, this indicates that the data component **SHALL NOT** be used. This will be because analysis of requirements found reasons to prohibit the use of it.

In some documents the right-hand side of the data hierarchy contains one or more columns under the heading “Core Requirement”. Each column contains information for one document exchange scenario. A cell that is empty indicates that the data component on that row is **OPTIONAL** to implement. That is, software that creates documents made in conformance with this specification **MAY** exclude the data component, and software that reads documents made in conformance with this specification **MAY** ignore the data component. All other data components **SHALL** be implemented.

# Sample SCS Data Hierarchy

## Note

Items below whose text is lighter (mid-blue and mid-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.

Items below with a grey background are data components that are included in the relevant detailed clinical model specification, but whose use is discouraged in this particular scenario.

| | | | | |
|---|---|---|---|---|
| | SPECIALIST LETTER | | | |
| CONTEXT | | | | |
| | | SUBJECT OF CARE | | 1..1 |
| | | DOCUMENT AUTHOR | | 1..1 |
| | | ENCOUNTER | | 1..1 |
| | | | DateTime Subject of Care Seen ( DateTime Health Event Started) | 1..1 |
| | | | DateTime Health Event Ended | 0..0 |
| | | | HEALTHCARE FACILITY | 0..0 |
| | | Document Instance Identifier | | 0..1 |
| | | RELATED INFORMATION | | 0..0 |
| | | Document Type | | 1..1 |
| CONTENT | | | | |
| | | RESPONSE DETAILS | | 1..1 |
| | | | Diagnosis (PROBLEM/DIAGNOSIS) | 0..* |
| | | | Diagnosis Name (Problem/Diagnosis Identification) | 1..1 |
| | | | Clinical Description | 0..0 |
| | and more | | | |

# Value Domain Section Legend

The following table illustrates the layout of the Value Domain section and describes the various parts of the section.

**Table 9: Value Domain Section Legend**

| | |
|---|---|
| **Source** | The name of the terminology or vocabulary from which the value domain's permissible values are sourced, e.g. SNOMED CT-AU, LOINC. |

| | |
|---|---|
| **Version Number** | Version number of the value domain source. |
| **Permissible Values** | A specification of the permissible values in the value domain.<br><br>This may be a list of codes. (Each code is typically presented as a triple with code values, text equivalent, and description; e.g. 1, Registered, No result yet available.)<br><br>This may be a conformance statement (e.g. "The permissible values are the members of the following seven AMT reference sets: ..."). |

# Usage Section Legend

The following table illustrates the layout of the Usage section and describes the various parts of the section.

**Table 10: Usage Section Legend**

| | |
|---|---|
| **Examples** | Sample values for the data element, with or without notes about sample values.<br><br>Where a data element has an associated value domain, examples representative of that domain are used where possible. Where the value domain is yet to be determined, indicative examples are provided.<br><br>Implementation guides may contain specific examples of how data elements may be populated and how they relate to each other.<br><br>This item is applicable only to data elements. |
| **Conditions of Use** | Prerequisites, provisos or restrictions for use of the data component. |
| **Conditions of Use Source** | The authoritative source for the Conditions of Use statement. |
| **Misuse** | Incorrect, inappropriate or wrong uses of the data component. |
| **Default Value** | A common denomination, or at least a usable denomination, from the Value Domain where available or applicable, typically assigned at the creation of an instance of the data component. |
| **Absent and Abnormal Values** | A statement of limitations on the use of abnormal values and absent values.<br><br>Unless otherwise specified, all data elements are permitted to have abnormal or absent values. Some abnormal values are only relevant to data elements of certain data types (e.g. positive infinity is relevant to numbers but not Booleans).<br><br>Representative examples of conditions of use statements involving value annotations:<br><br>• Absent values are **PROHIBITED**.<br><br>• Abnormal values are **PROHIBITED**.<br><br>• Abnormal and absent values are **PROHIBITED**.<br><br>This item is applicable only to data elements. |

# Relationships Section Legend

The Relationships section specifies the cardinality between parent and child data components.

The following table illustrates the layout of the Parent relationships table. Note that the occurrences in the relationships described by this table are from the parent to the child data component, i.e. from the data component listed in the table to the data component described by the section.

**Table 11: Parent Legend**

| Data Type | Name | Occurrences (child within parent) |
|---|---|---|
| The icon illustrating the metadata type or data type. | Parent Data Component Name | The minimum and maximum number of instances of the data component described on this page that **SHALL** occur. |

The following table illustrates the layout of the Children relationships table.

**Table 12: Children Legend**

| Data Type | Name | Occurrences |
|---|---|---|
| The icon illustrating the metadata type or data type. | Child Data Component Name | The minimum and maximum number of instances of the data component described on this page that **SHALL** occur. |

# Appendix C. Change History

A summary of changes from one document version to the next. Changes to the change history are excluded.

# C.1 Changes Since Version 3.1 - 22 December 2011

The presentation format has changed between version 3.1 and version 3.2. Changes that result from the change in presentation format are not listed below.

Changes to prohibited data components are not described.

## Preliminary Pages

A number of editorial errors have been corrected in Disclaimer and Document Control.

Document Information section has been changed to include the latest release details.

Acknowledgements chapter has been updated to replace generic acknowledgements to Standards Australia, Members of the Australian DataTypes Project, Australian Institute of Health and Welfare and Ocean Informatics with the funding acknowledgement for the Council of Australian Governments, and acknowledgements for LOINC, SNOMED CT and HL7 International.

## Chapter 1 Introduction

In 1.1 Purpose and Scope, corrected email address to help@nehta.gov.au.

In 1.4 Terminology, corrected email address to help@nehta.gov.au.

## Chapter 2 Body Height/Length Detailed Clinical Model

The version of the DCM has changed from 3.0 to 3.1.

2.4 UML Class Diagram, the diagram and explanatory text have been updated.

In 2.5 Data Hierarchy, the following data components have been added, deleted or substituted:

- data group *BODY HEIGHT/LENGTH*, the data element *Body Height/Length DateTime* has been deleted;
- data group *BODY HEIGHT/LENGTH*, the data element *Body Height/Length Duration* has been deleted;
- data group *BODY HEIGHT/LENGTH*, the data element *Observation DateTime* has been added; and
- data group *BODY HEIGHT/LENGTH > LINK* has been replaced with the data group *RELATED INFORMATION*.

2.22 Body Heigth/Length DateTime has been deleted.

2.23 Body Heigth/Length Duration has been deleted.

2.22 Observation DateTime has been added.

2.24 RELATED INFORMATION has a new Name, Label, Definition and Notes. The Identifier is the same as the meaning has not changed.

In 2.25 Link Nature, Definition has been updated.

In 2.26 Link Nature Values:

- External Identifier has been added; and
- Definition has been reworded.

In 2.27 Link Role, Notes has been reworded.

In 2.28 Link Role Values:

- External Identifier has been added;
- Definition has been reworded; and
- Context has been reworded.

In 2.29 Target:

- Label Link Target has been updated to match the name; and
- Definition has been reworded.

In 2.37 Detailed Clinical Model Identifier:

- Definition has been reworded;
- Notes has been added;
- Default Value Conditions of Use has been moved to Conditions of Use.

# Chapter 3 Body Weight Detailed Clinical Model

The version of the DCM has changed from 3.0 to 3.1.

3.4 UML Class Diagram, the diagram and explanatory text have been updated.

In 3.5 Data Hierarchy, the following data components have been added, deleted or substituted:

- data group *BODY WEIGHT*, the data element *Body Weight DateTime* has been deleted;
- data group *BODY WEIGHT*, the data element *Body Weight Duration* has been deleted;
- data group *BODY WEIGHT*, the data element *Observation DateTime* has been added; and
- data group *BODY WEIGHT > LINK* has been replaced with the data group *RELATED INFORMATION*.

In 3.7 Weight Value, OID has been corrected.

3.25 Body Weight DateTime has been deleted.

3.26 Body Weight Duration has been deleted.

3.25 Observation DateTime has been added.

3.27 RELATED INFORMATION has a new Name, Label, Definition and Notes. The Identifier is the same as the meaning has not changed.

In 3.28 Link Nature, Definition has been updated.

In 3.29 Link Nature Values:

- External Identifier has been added; and

- Definition has been reworded.

In 3.30 Link Role, Notes has been reworded.

In 3.31 Link Role Values:

- External Identifier has been added;
- Definition has been reworded; and
- Context has been reworded.

In 3.32 Target:

- Label Link Target has been updated to match the name; and
- Definition has been reworded.

In 3.33 Detailed Clinical Model Identifier:

- Definition has been reworded;
- Notes has been added;
- Default Value Conditions of Use has been moved to Conditions of Use.

# Chapter 4 Body Part Circumference Detailed Clinical Model

The version of the DCM has changed from 1.0 to 1.1.

4.3 UML Class Diagram, the diagram and explanatory text have been updated.

In 4.4 Data Hierarchy, the following data components have been added, deleted or substituted:

- data group *BODY PART CIRCUMFERENCE*, the data element *Body Part Circumference DateTime* has been deleted;
- data group *BODY PART CIRCUMFERENCE*, the data element *Body Part Circumference Duration* has been deleted;
- data group *BODY PART CIRCUMFERENCE*, the data element *Observation DateTime* has been added; and
- data group *BODY PART CIRCUMFERENCE* > *LINK* has been replaced with the data group *RELATED INFORMATION*.

In 4.4 Data Hierarchy, the following data components have had labels removed to match their name:

- data group *BODY PART CIRCUMFERENCE* > *ANATOMICAL LOCATION* > *SPECIFIC LOCATION*, the data element *Anatomical Location Name*;
- data group *BODY PART CIRCUMFERENCE* > *ANATOMICAL LOCATION* > *RELATIVE LOCATION*, the data element *Anatomical Location Aspect*;
- data group *BODY PART CIRCUMFERENCE* > *ANATOMICAL LOCATION*, the data element *Anatomical Location Description*; and
- data group *BODY PART CIRCUMFERENCE* > *ANATOMICAL LOCATION*, the data element *Anatomical Location Image*.

In 4.7 Anatomical Location Name, the label has been removed.

In 4.15 Anatomical Location Aspect, the label has been removed.

In 4.17 Anatomical Location Description, the label has been removed.

In 4.19 Anatomical Location Image, the label has been removed.

4.34 Body Part Circumference DateTime has been deleted.

4.35 Body Part Circumference Duration has been deleted.

4.34 Observation DateTime has been added.

4.36 RELATED INFORMATION has a new Name, Label, Definition and Notes. The Identifier is the same as the meaning has not changed.

In 4.37 Link Nature, Definition has been updated.

In 4.38 Link Nature Values:

- External Identifier has been added; and
- Definition has been reworded.

In 4.39 Link Role, Notes has been reworded.

In 4.40 Link Role Values:

- External Identifier has been added;
- Definition has been reworded; and
- Context has been reworded.

In 4.41 Target:

- Label Link Target has been updated to match the name; and
- Definition has been reworded.

In 4.42 Detailed Clinical Model Identifier:

- Definition has been reworded;
- Notes has been added;
- Default Value Conditions of Use has been moved to Conditions of Use.

# Chapter 5 Body Mass Index Detailed Clinical Model

The version of the DCM has changed from 1.0 to 1.1.

5.3 UML Class Diagram, the diagram and explanatory text have been updated.

In 5.4 Data Hierarchy, the following data components have been added, deleted or substituted:

- data group *BODY MASS INDEX*, the data element *Body Mass Index DateTime* has been deleted;
- data group *BODY MASS INDEX*, the data element *Body Mass Index Duration* has been deleted;
- data group *BODY MASS INDEX*, the data element *Observation DateTime* has been added; and
- data group *BODY MASS INDEX* > *LINK* has been replaced with the data group *RELATED INFORMATION*.

5.18 Body Mass Index DateTime has been deleted.

4.35 Body Mass Index Duration has been deleted.

5.18 Observation DateTime has been added.

5.20 RELATED INFORMATION has a new Name, Label, Definition and Notes. The Identifier is the same as the meaning has not changed.

In 5.21 Link Nature, Definition has been updated.

In 5.22 Link Nature Values:

- External Identifier has been added; and
- Definition has been reworded.

In 5.23 Link Role, Notes has been reworded.

In 5.24 Link Role Values:

- External Identifier has been added;
- Definition has been reworded; and
- Context has been reworded.

In 5.25 Target:

- Label Link Target has been updated to match the name; and
- Definition has been reworded.

In 5.26 Detailed Clinical Model Identifier:

- Definition has been reworded;
- Notes has been added;
- Default Value Conditions of Use has been moved to Conditions of Use.

# Appendix A Known Issues

Added generic known issues for links across multiple pages, Detailed Clinical Models and UML Class diagrams.

# Reference List

Updated accessed date for all entries.

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