5 METeOR

5.1 What is METeOR?

METeOR is an electronically accessible up-to-date source of data standards for national data standards across the health, community services and housing assistance sectors in Australia. It is available at http://meteor.aihw.gov.au

METeOR integrates and presents information about:

- the National Health Data Dictionary
- the National Community Services Data Dictionary
- the National Housing Assistance Data Dictionary
- National Minimum Data Sets
- Data Set Specifications

METeOR provides:

- a user-friendly interface and functionality for users to search and browse the registry
- comprehensive background information, as well as help screens to assist in interpreting onscreen material
- assistance and tools for developing metadata, including private workspaces for developer groups to review and develop their draft data standards and context-specific online guidelines for developing data standards
- a tool for submitting developed data standards online to the national data committees for review, endorsement and registration
- enhanced functionality for those with the task of maintaining the metadata content
- a facility for tagging data standards such that an e-mail notification is received when the data standard is changed.

METeOR is the replacement for the AIHW's previous electronic data standards registry—the Knowledgebase. The Knowledgebase design was based on the previous version of the international standard for data element definition, ISO/IEC 11179 (1994), *Information Technology — Specification and standardization of data elements*. METeOR is based on the 2003 version of the ISO/IEC 11179 international standard for metadata registries.

> *METeOR stands for METadata Online Registry. The small 'e' in the middle of METeOR is for electronic.*

5.2 Principles of METeOR

METeOR was developed based on a number of underlying principles. These principles include:

- promoting reusability of data standards and its supporting building blocks (such as data element concepts and value domains)
- allowing generic and specific data standards to coexist
- communicating different context of application of the same data standards
- ensuring that data standards are relevant and meaningful in specific contexts
- facilitating the integration and sharing of data standards across the health, community services and housing assistance sectors in order to cut metadata development costs and lead to comparable data among the sectors
- developing data standards based on ISO/IEC 11179 metadata standards
- providing standardised templates for data developers to develop and submit data standards for registration and endorsement
- providing an indication of the currency and authority of data standards.

5.3 METeOR metadata item types and attributes

Object class name

For example, person

Identifying and definitional attributes

Synonymous names: **A synonym or list of synonyms for the name within the specified context.** For example:

Human being

METeOR identifier: **A unique identifier within METeOR, automatically generated by METeOR.** For example:

269299

Registration status: **A status value for a metadata item indicating its stage in the registration process, automatically generated by METeOR**. For example:

NHIG, Standard 01/03/2005
NCSIMG, Standard 01/03/2005
NHDAMG, Standard 01/03/2005

Explanation:

This object class was approved by the National Health Information Group, the National Community Services Information Management Group and the National Housing Agreement Data Management Group as a national Standard on 01/03/ 2005.

Definition: **A concise statement that expresses the essential nature of the metadata item and its differentiation from other metadata items.** For example:

A human being, whether man, woman or child.

Specialisation of: **An instance of specialisation of an object class, generated by the Registrar.** For example:

Person/group of persons (group status)

Explanation:

The object class Person is a subtype of Person/group of persons, when categorised by group status (that is, whether one or more people are involved).

Collection and usage attributes

Comments: **Any additional information that adds to the understanding of the metadata item.**

This attribute may be left blank.

Source and reference attributes

Submitting organisation: **One or more organisations responsible for the submission of the metadata item for national endorsement as a standard.** For example:

Australian Institute of Health and Welfare

Steward:	**The name of the organisation that has accepted responsibility and been approved by a registration authority to provide ongoing maintenance and management of a metadata item.** For example:
	Australian Institute of Health and Welfare
Origin:	**Any document(s) (including websites) from which any content of the metadata item originates**. For example:
	Macquarie University 2003. The Macquarie Dictionary, 3rd ed. Sydney: The Macquarie Library Pty Ltd.
Reference documents:	**Significant documents that contributed to the development of the metadata item, but which were not direct sources for metadata content.**
	If the developer of this metadata item did not refer to any documents other than the origin in the development of this object class, this attribute may be left blank.

Relational attributes

Related metadata references:	**An indicator of the relationships between metadata items within a given sector (that is, health, community services or housing assistance).** For example:
	Supersedes Adult NHIG, Standard 01/03/2005
	Explanation:
	This object class replaced the object class adult as a standard in the health sector as of 01/03/2005.
Data element concepts implementing this object class	**A list of the data element concepts that include this object class, automatically generated by METeOR** For example:
	'Person—body height' — NHIG, Standard 01/03/2005
	Explanation:
	This object class is implemented in 'Person — body height' which was approved as a standard by the National Health Information Group on 01/03/2005.

Property name
For example, body height

Identifying and definitional attributes

Synonymous name(s):   **A synonym or list of synonyms for the name within the specified context.** For example:

Stature

METeOR identifier: **A unique identifier within METeOR, automatically generated by METeOR**. For example:

268955

Registration status: **A status value for a metadata item indicating its stage in the registration process, automatically generated by METeOR**. For example:

NHIG, Standard 01/03/2005

Explanation:

This property was approved by the National Health Information Group as a national Standard on 01/03/2005. This property has not been proposed as a standard to the community services or housing assistance sector registration authorities.

Definition: **A concise statement that expresses the essential nature of the metadata item and its differentiation from other metadata items.** For example:

The standing height or recumbent length of a body.

Property group: **The grouping of properties with similar characteristics, generated by the Registrar**. For example:

Physical characteristics

Explanation:

Body height is a physical characteristic.

Collection and usage attributes

Comments: **Any additional information that adds to the understanding of the metadata item.**

This attribute may be left blank.

Source and reference attributes

Submitting organisation: **One or more organisations responsible for the submission of the metadata item for national endorsement as a standard.** For example:

Australian Institute of Health and Welfare

Steward:	**The name of the organisation that has accepted responsibility and been approved by a registration authority to provide ongoing maintenance and management of a metadata item**. For example:
	Australian Institute of Health and Welfare
Origin:	**Any document(s) (including websites) from which any content of the metadata item originates**. For example:
	Macquarie University 2003. The Macquarie Dictionary 3rd ed. Sydney: The Macquarie Library Pty Ltd
Reference documents:	**Significant documents that contributed to the development of the metadata item, but which were not direct sources for metadata content.**
	If the developer of this metadata item did not refer to any documents other than the origin in the development of this property, this attribute may be left blank.

Relational attributes

Related metadata references:	**An indicator of relationships between metadata items within a given sector (that is, health, community services or housing assistance)**. For example:
	Supersedes Height NHIG, Standard 01/03/2005
	Explanation:
	This property replaced the property height as a standard in the health sector as of 01/03/2005.
Data element concepts implementing this property:	**A list of the data element concepts that implement this property, automatically generated by METeOR**. For example,
	Person—body height NHIG, Standard 01/03/2005
	Explanation:
	This property is implemented in the data element concept Person – body height which was approved as a standard by the National Health Information Group on 01/03/2005.

Data element concept name

For example, person—body height

Identifying and definitional attributes

Synonymous name(s):	**A synonym or list of synonyms for the name within the specified context.** For example:
	Stature; Standing height; Recumbent length
METeOR identifier:	**A unique identifier within METeOR, automatically generated by METeOR.** For example:
	269792
Registration status:	**A status value for a metadata item indicating its stage in the registration process, automatically generated by METeOR.** For example:
	NHIG, Standard 01/03/2005
	Explanation:
	This data element concept was approved by the National Health Information Group as a national Standard on 01/03/2005. This data element concept has not been proposed as a standard to the community services or housing assistance sector registration authorities.
Definition:	**A concise statement that expresses the essential nature of the metadata item and its differentiation from other metadata items.** For example:
	The height of a person.
Context:	**A designation and/or description of the application environment or discipline in which the metadata item has meaning.** For example:
	Public health
	This attribute may be left blank.
Object class:	**The name of the object class implemented in this data element concept.** For example:
	Person
	Explanation:
	The name of the object class forms the leftmost part of the data element concept name.
Property:	**The name of the property implemented in this data element concept**. For example:
	Body height
	Explanation:
	The name of the property forms the rightmost part of the data element concept name.

Collection and usage attributes

Comments: **Any additional information that adds to the understanding of the metadata item.**

This attribute may be left blank.

Source and reference attributes

Submitting organisation: **One or more organisations responsible for the submission of the metadata item for national endorsement as a standard.** For example:

Australian Institute of Health and Welfare

Steward: **The name of the organisation that has accepted responsibility and been approved by a registration authority to provide ongoing maintenance and management of a metadata item.** For example:

Australian Institute of Health and Welfare

Origin: **Any document(s) (including websites) from which any content of the metadata item originates.** For example:

Macquarie University 2003. The Macquarie Dictionary 3rd edition. Sydney: The Macquarie Library Pty. Ltd

Reference documents: **Significant documents that contributed to the development of the metadata item, but which were not direct sources for metadata content.**

If the developer of this metadata item did not refer to any documents other than the origin in the development of this object class, this attribute may be left blank.

Relational attributes

Related metadata references: *An indicator of relationships between metadata items within a given sector (that is, health, community services or housing assistance). For example:*

Supersedes Adult—height NHIG, Standard 01/03/2005

Explanation:

This data element concept replaced the data element concept Adult—height as a standard in the health sector as of 01/03/2005.

Data elements implementing this data element concept: **A list of the data elements that include this data element concept, automatically generated by METeOR given the permissions of the user**. For example:

Person—body height (measured), total centimetres NN[N].N NHIG, Standard 01/03/2005

Person—body height (self-reported), total centimetres NN[N] NHIG, Standard 01/03/2005

Explanation:

This data element concept is implemented in two data elements, which were approved as national Standards by the National Health Information Group on 01/03/2005.

Value domain name
For example, Diagnosis code (ICD-10-AM 3rd edition) ANN{.N[N]}

Identifying and definitional attributes

Synonymous names:	**A synonym or list of synonyms for the name within the specified context.**
	This attribute may be left blank.
METeOR identifier:	**A unique identifier within METeOR, automatically generated by METeOR**. For example:
	270714
Registration status:	**A status value for a metadata item indicating its stage in the registration process, automatically generated by METeOR**. For example:
	NHIG, Standard 01/03/2005
	Explanation:
	This value domain was approved by the National Health Information Group as a national standard on 01/-3/2005. This value domain has not been proposed as a standard to the community services or housing assistance sector registration authorities.
Definition:	**A concise statement that expresses the essential nature of the metadata item and its differentiation from other metadata items.** For example:
	The ICD-10-AM (3rd edition) code set representing diagnoses.
Context:	**A designation and/or description of the application environment or discipline in which the metadata item has meaning.** For example:
	Public health
	This attribute may be left blank.
Classification:	**The name of the classification implemented in this value domain.**
	International Statistical Classification of Diseases and Related Health Problems. Tenth Revision. Australian Modification, 3rd ed
	Explanation:
	This value domain implements the diagnosis codes ICD-10-AM (3rd edition).

Representational attributes

Representation class:	**The class of representation of a value domain.** For example:
	Code
Data type:	**A set of distinct values, characterised by properties of those values and by the operations on those values.** For example:
	String

Format:	**A template for the presentation of values, including specification and layout of permitted characters, the maximum and minimum size and precision.** For example:
	ANN{.N[N]}
	Explanation:
	This value domain has a representation of one alphabetical character followed by two numeric characters, followed by either a decimal point and one numeric character, a decimal point and two numeric characters, or nothing.
Maximum character length:	**The maximum number of characters permitted to represent the values.** For example:
	6
Permissible values:	**A list of codes and code descriptions representing values specified on a primary collection form**. For example:
	The diagnosis codes located within ICD-10-AM (3rd ed.) form the set of 'permissible values'. For value domains that implement classifications, this attribute should be left blank.
Supplementary values:	**A list of codes and code descriptions representing values produced in the data cleaning process (that is, they were not specified on the data collection form).**
	Supplementary values within this value domain, or this attribute should be left blank.
Unit of measure:	**The item(s) to be measured.**
	This value domain is of representation class code. It is therefore not associated with a unit of measure. In such circumstances, this attribute should be left blank.

Collection and usage attributes

Comments:	**Any additional information that adds to the understanding of the metadata item.**
	Any additional comments about this value domain or this attribute may be left blank.

Source and reference attributes

Submitting organisation:	**One or more organisations responsible for the submission of the metadata item for national endorsement as a standard.** For example:
	Australian Institute of Health and Welfare
Steward:	**The name of the organisation that has accepted responsibility and been approved by a registration authority to provide ongoing maintenance and management of a metadata item.** For example:
	Australian Institute of Health and Welfare
Origin:	**Any document(s) (including websites) from which any content of the metadata item originates.** For example:
	International classification of diseases 2002. Tenth revision. Australian modification, 3rd ed. Sydney: National Centre for Classification in Health.

Reference documents:	**Significant documents that contributed to the development of the metadata item, but which were not direct sources for metadata content.**
	If the developer of this metadata item did not refer to any documents other than the origin in the development of this object class, this attribute may be left blank.

Relational attributes

Related metadata references:	**An indicator of relationships between metadata items within a given sector (that is, health, community services or housing assistance).**
	Relations between this value domain and other metadata items within METeOR, or this attribute may be left blank.
Data elements implementing this value domain:	**A list of the data elements that implement this value domain, automatically generated by METeOR.** For example:
	Person—body height (measured), total centimetres NN[N].N NHIG, Standard 01/03/2005
	Person—hip circumference (measured), total centimetres NN[N].N NHIG, Standard 01/03/2005
	Person—waist circumference (measured), total centimetres NN[N].N NHIG, Standard 01/03/2005
	Explanation:
	This value domain is implemented in 3 data elements, all approved by the National Health Information Management Group as a national standard on 01/03/2005.

Data element name

For example Person—body height, total centimetres NN[N].N

Identifying and definitional attributes

Synonymous name(s):	**A synonym or list of synonyms for the name within the specified context.** For example:
	Stature; Standing height; Recumbent length
METeOR identifier:	**A unique identifier within METeOR, automatically generated by METeOR.** For example:
	270361
Registration status:	**A status value for a metadata item indicating its stage in the registration process, automatically generated by METeOR**. For example:
	NHIG, Standard 01/03/2005
	Explanation:
	The National Health Information Group approved this data element as a national Standard on 01/03/2005. This data element has not been proposed as a standard to the community services or housing assistance sector registration authorities.
Definition:	**A concise statement that expresses the essential nature of the metadata item and its differentiation from other metadata items.** For example:
	A person's measured height.
Context:	**A designation and/or description of the application environment or discipline in which the metadata item has meaning.** For example:
	Public health
	This attribute may be left blank.
Data element concept:	**The name of the data element concept implemented in this data element.** For example:
	Person—body height
	Explanation:
	This data element concept is the union of the object class 'Person' and the property 'Body height'.
	The name of the data element concept forms the leftmost part of the data element name.
Value domain:	**The name of the value domain implemented in this data element.** For example:
	Total centimetres NN[N].N
	Explanation:
	This data element is a measurement in centimetres, which accepts numeric values in the format of NN.N and NNN.N

The name of the value domain forms the rightmost part of the data element name.

Collection and usage attributes

Guide for use: **Comments, advice or instructions for the interpretation or application of the metadata item**. For example:

Use code 999.9 Not measured when body height is not measured by the clinician, including self-reported values.

Collection methods: **Comments, advice or instructions for the actual capture of data.** For example:

All equipment, whether fixed or portable, should be checked prior to each measurement session to ensure that both the headboard and floor (or footboard) are at 90 degrees to the vertical rule. With some types of portable anthropometer it is necessary to check the correct alignment of the headboard during each measurement by means of a spirit level. Within- and, if relevant, between-observer variability should be reported. They can be assessed by the same (within-) or different (between-) observers repeating the measurement of height, on the same subjects, under standard conditions after a short time interval. The standard deviation of replicate measurements (technical error of measurement (Pederson & Gore 1996)) between observers should not exceed 5 mm and be less than 5 mm within observers.

Comments: **Any additional information that adds to the understanding of the metadata item.** For example:

For some reporting purposes, it may be desirable to present height data in categories. It is recommended that 5 cm groupings are used for this purpose.

This attribute may be left blank.

Source and reference attributes

Submitting organisation   **One or more organisations responsible for the submission of the metadata item for national endorsement as a standard.** For example:

Australian Institute of Health and Welfare

Steward: *The name of the organisation that has accepted responsibility and been approved by a registration authority to provide ongoing maintenance and management of a metadata item.* For example:

Australian Institute of Health and Welfare

Origin: **Any document(s) (including websites) from which any content of the metadata item originates.** For example:

Pederson D & Gore C 1996. Anthropometry measurement error. In: Norton K and Olds T (eds). Anthropometrica. Sydney: University of New South Wales Press, 77–96

Explanation:

This is the full reference, using AIHW referencing guidelines, for the document cited within the collection methods attribute.

Reference documents:	**Significant documents that contributed to the development of the metadata item, which were not direct sources for metadata content.** For example:
	Norton K, Whittingham N, Carter L, et al. 1996. Measurement techniques in anthropometry. In: Norton K and Olds T (eds). Anthropometrica. Sydney: University of New South Wales Press, 25–75
	Explanation:
	This is the full reference, using AIHW referencing guidelines, for the document used in the development of this data element concept.

Relational attributes

Related metadata references:	**An indicator of relationships between metadata items within a given sector (that is, health, community services or housing assistance).** For example:
	Supersedes Height - measured, version 2, DE, NHDD, NHIMG, Superseded 01/03/2005.pdf (28.7 KB) NHIG, Standard 01/03/2005
	Is used in the formation of Adult—body mass index (measured), ratio NN[N].N[N] NHIG, Standard 01/03/2005
	Explanation:
	This data element replaced the National Health Data Dictionary version of this data element as of 01/03/2005.
	This data element is used in the calculation the data element Adult—body mass index (measured), ratio NN[N].N[N], which was approved as a Standard by the National Health Information Group on 01/03/2005.
Data set specifications including this data element:	**A list of the data set specifications that include this data element, automatically generated by METeOR given the permissions of the user.** For example:
	Diabetes (clinical) NHIG, Standard 01/03/2005
	Explanation:
	This data element is included in the Diabetes (clinical) data set specification, which was approved as a Standard by the National Health Information Group on 01/03/2005.

Classification name

For example, International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification 3rd edition

Identifying and definitional attributes

Synonymous name: **The abbreviated title of the classification.** For example:

ICD-10-AM 3rd edition

METeOR identifier: **A unique identifier within METeOR, automatically generated by METeOR**. For example:

270546

Registration status: **A status value for a metadata item indicating its stage in the registration process, automatically generated by METeOR.** For example:

NHIG, Standard 01/03/2005

Explanation:
This classification was approved by the National Health Information Group as a national standard on 01/03/2005. This property has not been proposed as a standard to the community services or housing assistance sector registration authorities.

Definition: **A concise statement that expresses the essential nature of the metadata item and its differentiation from other metadata items.** For example:

The National Centre for Classification in Health classification for diseases, related health problems and procedures.

Context: **A designation and/or description of the application environment or discipline in which the metadata item has meaning.**

Record the setting within which the classification can be applied or alternatively this attribute may be left blank.

Classification structure: **The underlying structure of a classification, such as the number and type of scales or axes within the classification.** For example:

ICD-10-AM 3rd edition is composed of five volumes:
1. Tabular list of diseases. The tabular list of diseases contains the disease classification itself at the three-, four- and five-character levels. Two appendices are specified: Morphology of neoplasms; and Special tabulation lists for mortality and morbidity.
2. Alphabetic index of diseases. The index to diseases contains many diagnostic terms that do not appear in Volume 1.
3. Tabular list of procedures (ACHI). The tabular list of procedures contains the procedure classification itself. Two appendices are specified: Mapping table and ACHI codes listed in numerical order.

4. Alphabetic index of procedures (ACHI). The index of procedures contains many procedure terms that do not appear in Volume 3.
5. Australian Coding Standards. The Australian Coding Standards contains the national standards developed by the NCCH, which provide guidance in the application of ICD-10-AM codes.

Collection and usage attributes

Guide for use:	**Comments, advice, or instructions for the interpretation or application of the metadata item.**
	This attribute may be left blank.
Collection methods:	**Comments, advice, or instructions for the actual capture of data.**
	This attribute may be left blank.
Comments:	**Any additional information that adds to the understanding of the metadata item.**
	Provide any additional comments on this classification or this attribute may be left blank.

Source and reference attributes

Submitting organisation:	**One or more organisations responsible for the submission of the metadata item for national endorsement as a standard.** For example:
	National Centre for Classification in Health
Steward:	**The name of the organisation that has accepted responsibility and been approved by a registration authority to provide ongoing maintenance and management of a metadata item.** For example:
	Australian Institute of Health and Welfare
Origin:	**Any document(s) (including websites) from which any content of the metadata item originates.** For example:
	National Centre for Classification in Health (NCCH) 2002. The international statistical classification of diseases and related health problems. Tenth revision. Australian modification, 3rd ed. Sydney: NCCH, Faculty of Health Sciences, The University of Sydney
Reference documents:	**Significant documents that contributed to the development of the metadata item which were not direct sources for metadata content.**
	This attribute may be left blank.
Revision status:	**The status of the classification in terms of formal revisions.** For example:
	ICD-10-AM 3rd edition supersedes the 2nd edition of ICD-10-AM. ICD-10-AM was developed by the National Centre for Classification in Health (NCCH). During the development, the NCCH was advised by members of the NCCH Coding Standards Advisory Committee and the Clinical Classification and Coding Groups, consisting of expert clinical coders and clinicians nominated by the Australian Casemix Clinical Committee.

Relational attributes

Related metadata references:

An indicator of relationships between metadata items within a given sector (that is, health, community services or housing assistance). **For example:**

Supersedes ICD-10-AM 2nd edition NHIG, Standard 01/03/2005

Explanation:

This classification replaced the classification ICD-10-AM 2nd edition as a standard in the health sector as of 01/03/2005.

Value Domains based on this classification:

A list of the value domains that implement this classification is automatically generated by METeOR given the permissions of the user. **For example:**

Admitted patient code (ICD-10-AM 3rd edition) ANN{.N[N]} NHIG, Standard 01/03/2005

Explanation:

This classification is implemented in Admitted patient code (ICD-10-AM 3rd edition) ANN{.N[N]} which was approved as a standard by the National Health Information Group on 01/03/2005.