AIHW | METEOR
Metadata Online Registry
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Business rules for data standard development in METEOR

May 2025

Contents

Abbreviations

AIHW	Australian Institute of Health and Welfare
AS 21667–2012	Australian Standard Health indicators conceptual framework
DQS	Data quality statement
DSS	Data set specification
ICD-10-AM Twelfth Edition	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification Twelfth Edition
ISO/IEC 11179	International Standardization Organisation/International Electrotechnical Commission 11179: Information technology — Metadata registries (MDR)
METEOR	Metadata Online Registry
NBEDS	National best endeavours data set
NBPDS	National best practice data set
NMDS	National minimum data set

Objectives

The objective of this set of business rules is to provide a format for documenting the protocols and processes of developing and implementing metadata within the METEOR platform.

1 Introduction

1.1 Purpose of this document

METEOR is the Australian Institute of Health and Welfare's (AIHW's) Metadata Online Registry. It was first released in 2005 and is a critical component of Australia's national health and welfare information infrastructure. In 2021/22, METEOR was redeveloped in-house as a result of collaborations between the Business & Development unit (BDU), Information and Communication Technology (ICT), Metadata, Information Management and Classifications Unit (MIMCU), subject matter experts and stakeholders.

This document should be used when developing metadata for standardisation. It describes the requirements for completing metadata attributes (referred to as a metadata item's characteristics) in METEOR. These requirements are important for the quality and consistency of data standards across METEOR.

This document is not a 'how to' manual on developing metadata in METEOR with step-by-step instructions. We recommend that users undertake appropriate METEOR training in order to understand how to create, develop and maintain metadata and data standards in METEOR. Training modules are available from the METEOR site.

1.2 Roles within METEOR

There are four types of roles in METEOR: metadata developer, workgroup manager, registrar and metadata administrator. Each role type requires different levels of access.

1.2.1 Developer

A developer is someone who has permission to access METEOR to create and develop new metadata, and modify existing content. To do this, the developer requires a METEOR login with developer access level.

A developer needs to be a member of a workgroup in order to gain access to that particular content. A developer can be a member of more than one workgroup.

Once a metadata item reaches *Qualified* registration status, a developer can no longer edit the item.

1.2.2 Workgroup manager

A workgroup manager is someone who has access to METEOR to create and modify existing content, as well as assign developers access to the workgroup(s) they manage.

A workgroup manager can also remove access to the workgroup(s) they manage.

A workgroup manager is usually the principal developer in a project.

Once a metadata item reaches *Qualified* registration status, a workgroup manager can no longer edit the item.

1.2.3 Registrar

A registrar is someone who works on behalf of a registration authority in order to manage metadata through the data standards endorsement process.

A registrar has access to METEOR to create and modify existing content.

Part of a registrar's role is to perform conceptual and technical reviews of metadata, ensuring that developers meet the quality and standard required against the business rules.

A registrar can progress (step-by-step) items to any status on behalf of their registration authority.

A registrar also has permission to create non-ISO 11179 content such as object class specialisations, property groups, data sources, outcome areas, and framework and dimensions.

A registrar can assign a steward to metadata items.

A registrar can assign or create a new unit of measure.

1.2.4 Metadata administrator

A metadata administrator is someone who has full access to manage workgroups, organisations and registration authorities. The administrator can access all workgroups, edit access and has the ability to retire any items.

A metadata administrator can modify user permissions, deactivate and reactivate user accounts.

A metadata administrator can create and edit all metadata content, and progress and rollback items to any status within any registration authority.

1.2.5 Steward

A steward is the organisation responsible for providing ongoing maintenance and management of a metadata item. Only a registrar can assign a steward to a metadata item.

1.2.6 Registration authority

A registration authority is responsible for endorsing their sector's data standards and indicator sets. A registration authority reviews recommendations made by data or information committees and provides formal approval for assigning the *Standard* status for data elements.

1.3 Structure of this document

1.3.1 Document outline

The document consists of the following:

- Chapter 1: Introduction
- Chapter 2: Principles for the development of good data standards
- Chapters 3 to 18: Business rules for individual metadata types
- Appendix A: Use of abbreviations in name and definition attributes

- Appendix B: Formatting and stylistic guidelines
- Appendix C: Referencing guidelines
- Appendix D: Metadata attributes automatically generated by METEOR
- Appendix E: Registration status values and associated business rules
- Appendix F: Metadata relationship types and associated meanings
- Appendix G: Value representation tables
- Appendix H: Data element clusters.

1.3.2 Structure of business rule chapters

The business rules for individual metadata types are documented in chapters 3 to 18:

- Chapter 3: Object class business rules
- Chapter 4: Object class specialisation business rules
- Chapter 5: Property business rules
- Chapter 6: Property group business rules
- Chapter 7: Data element concept business rules
- Chapter 8: Value domain business rules
- Chapter 9: Data element business rules
- Chapter 10: Classification scheme business rules
- Chapter 11: Glossary item business rules
- Chapter 12: Data set specification business rules
- Chapter 13: Indicator business rules
- Chapter 14: Indicator set business rules
- Chapter 15: Outcome area business rules
- Chapter 16: Framework dimension business rules
- Chapter 17: Data quality statement business rules
- Chapter 18: Data source business rules.

Each of the above chapters list the respective metadata attributes (represented by templates in METEOR), such as ‘name’, ‘definition’, and the like. Each chapter includes attribute information relevant to the particular metadata type in table format as follows:

Attribute name

Attribute definition	
Obligation to complete:	This specifies the obligation, or requirement, to complete the attribute which may be: • Mandatory—the attribute must be completed • Conditional—the attribute is mandatory to complete if the stated condition is met • Optional—completion is discretionary and is largely dependent on whether there is appropriate information to include for the metadata item being developed.
Completed by:	This specifies who needs to complete the attribute—developer or registrar.
Visibility	This specifies who can view the information.
Rules:	This specifies the business rules for completing the attribute.
Notes:	This specifies additional information to note, if applicable.

1.4 Terminology

A distinction is made in this document between metadata and data standards.

The term metadata is used to refer to any content within the METEOR metamodel (Figure 1.1) that has been used to describe some aspect of data.

The term data standard is applied to a metadata item that has undergone the endorsement process by a registration authority to become a standard. A data standard endorsed for use across Australia is referred to as a national data standard.

The business rules in this document are generally written using the adjectival verb must or should:

- Business rules written as 'must' are requirements that need to be met
- Business rules written as 'should' are recommended as best practice.

See the Glossary for further terms used in this document.

1.5 ISO/IEC 11179, AS 21667—2012 and the METEOR metamodel

The architecture of METEOR is based on the international standard for metadata registries, ISO/IEC 11179. This standard provides a disciplined approach to the development, storage and management of metadata across a broad range of sectors. ISO/IEC 11179 specifies the kind and quality of metadata necessary to describe data independent of the organisation that produces the data, as well as the management and administration of that metadata in a metadata registry. ISO/IEC 11179 provides a standardised format to describe and represent the meaning and content of data.

The METEOR metamodel, the architectural framework model that defines how METEOR is structured, also extends beyond ISO/IEC 11179, as it incorporates both ISO/IEC 11179 and non-ISO/IEC 11179 structures. The framework dimensions in METEOR consist of indicator sets, indicators and outcome areas which are based on the Australian Standard (AS 21667—2012) Health indicators conceptual framework. The METEOR metamodel is shown in Figure 1.1. The components of the METEOR metamodel are described in Table 1.1.

Figure 1.1: METEOR metamodel

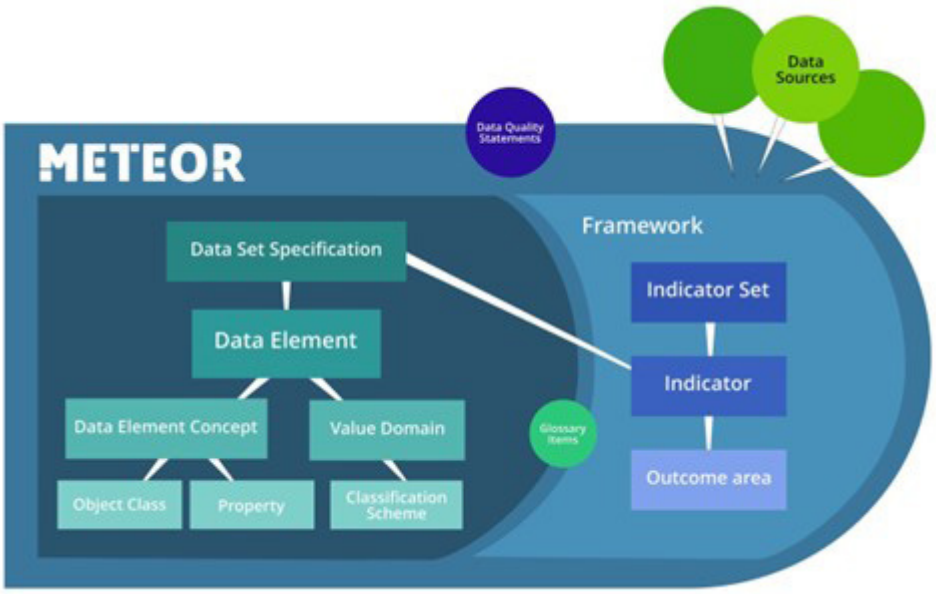


Figure 1.1: METEOR metamodel

Table 1.1: METEOR metamodel components

Component	Definition	Architecture
Object class	The person, place, event or thing that is being described.	ISO/IEC 11179
Property	The characteristic of the object of interest.	ISO/IEC 11179
Data element concept	A concept that can be represented in the form of a data element, described independently of any particular representation. In METEOR this is achieved by combining an object class and a property.	ISO/IEC 11179
Value domain	An implied and/or explicit set of values used to represent the characteristic being measured or described.	ISO/IEC 11179
Data element	A unit of data for which the definition, representation and permissible values are specified by means of a set of attributes. In METEOR this is achieved by combining a data element concept and a value domain.	ISO/IEC 11179
Classification scheme	A system for classifying data which is recognised and endorsed by a national or international body	ISO/IEC 11179
Glossary item	A term with a defined meaning that applies across all instances within a specified context.	Non-ISO/IEC 11179
Data set specification	A grouping of data elements and/or data set specifications, and the conditions under which the grouping should be collected or reported.	Non-ISO/IEC 11179

Table 1.1: METEOR metamodel components		
Indicator	A statistical measure used to describe the progress or performance of a system. The measure may be that of a population or the output of provision of goods and services.	AS 21667—2012
Indicator set	A grouping of indicators, including information on the origin of the indicator set and the auspice body responsible for defining the set.	AS 21667—2012
Outcome area	A statement that specifically defines the target, standard or the ideal result of an indicator, against which performance is to be assessed.	Non-ISO/IEC 11179
Framework and dimensions	The name of the conceptual framework to which a performance indicator can be reported against.	AS 21667—2012
Data quality statement	A statement of multiple quality dimensions for the purpose of assessing the quality of the data for reporting against the performance indicator.	Non-ISO/IEC 11179
Data source	A specific data set, database and reference from where data are sourced.	Non-ISO/IEC 11179

The METEOR metamodel is supplemented by two navigational structures managed by registrars that are not identified in Figure 1.1 or Table 1.1. These items are listed in the table below.

Table 1.2: METEOR navigational components		
Component	**Definition**	**Architecture**
Object class specialisation	A grouping of related object classes – consisting of 'parent' and 'child' object classes (e.g., Adult is a sub-type of Person).	Non-ISO/IEC 11179
Property group	A system for grouping properties with similar characteristics	Non-ISO/IEC 11179

1.6 Accessing business rules within METEOR

The business rules contained in this document have evolved over the many years since METEOR was released in 2005, it continues to be reviewed and refined as business and user requirements change. The most recent version of this document can be found on METEOR.

The business rules can also be found in the online contextual help for each metadata attribute within METEOR. The contextual help can be accessed by clicking on the information icon 'i', located against each attribute in METEOR—see icon example below:

Name 

1.7 Feedback

Feedback on this document and/or the business rules contained in it can be provided to the AIHW's My Health, Information Management and Metadata unit (MHIMM) on (02) 6244 1222 or email meteor@aihw.gov.au.

2 Principles for the development of good data standards

2.1 Introduction

This chapter provides the metadata development principles that lead to the development of good data standards. Data standards describe the agreed meaning and representation of data for use in a defined context. Data standards are also applied to metadata items that have been endorsed by a registration authority to become a standard. A data standard endorsed for use across Australia is referred to as a national data standard.

Good data standards improve the quality, relevance, consistency and availability of information about the health and welfare of Australians.

Creating data standards is an important part of the data development process. The aim is so that clinical, administrative, statistical and/or other information can be better understood and used across and within the health and welfare sectors. To achieve this, it is critical that the metadata used are defined and described accurately and consistently; this is done through the use of agreed-upon existing standards for compliancy and interoperability.

During the data development process, a number of characteristics of data are defined in order to aid the understanding, interpretation and use of data. The principles for the development of good data standards listed below cover the metadata attributes: 'name', 'definition', 'context', 'guide for use', 'collection methods', as well 'permissible' and 'supplementary values'. Also covered in this chapter is the principle of 'create once, use often'.

For information on data development more broadly, from the time a need for data development is identified to the endorsement of a fully developed data set, refer to A guide to data development (AIHW 2007) available on the AIHW's website.

2.2 Principle of 'create once, use often'

An important general principle for data development is the principle of 'create once, use often'. This means the availability of existing data sources should be explored and used, where possible. Data needed to support secondary (downstream) information purposes, such as reporting, policy, governance or decision support, should be derivable from primary (point-of delivery) data. Similarly, data developed and collected for mainly statistical purposes should be used to provide feedback to improve and enhance primary service delivery.

The 'create once, use often' principle also applies to the development and use of data standards in the following ways:

- When undertaking data development activity in METEOR, if a '*Standard*' exists that is fit for purpose, the standard should be used rather than creating a new metadata item. A developer should use METEOR's search function to thoroughly explore existing metadata before creating any new elements

- To facilitate the re-use of data standards across collections, where possible, generic metadata items should be developed rather than metadata items that can only be used in a specific collection. For example, a generic data element concept can be combined with different value domains (representational values) to create data elements.

2.3 Name and definition principles overview

The name of a data standard:

1. must be unique
2. must reflect the concept being defined
3. must be stated in the singular (unless the concept itself is plural in nature)
4. must avoid the use of words that imply a preselected single instance
5. should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item.

An explanation of the name principles is provided in section 2.6.1.

The definition of a data standard:

6. must be unique
7. must be stated in the singular (unless the concept itself is plural)
8. must state what the concept is, not only what it is not
9. must be stated as a descriptive phrase or sentence(s)
10. must be expressed without embedding definitions of other data or underlying concepts
11. may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item
12. should state the essential meaning of the concept
13. should be precise and unambiguous
14. should be concise
15. should be able to stand alone
16. should be expressed without embedding rationale, functional usage, domain or procedural information
17. should avoid circular reasoning

18. should be expressed in the present tense

19. should use the same terminology and consistent logical structure for related definitions

20. should be appropriate for the type of metadata item being defined.

An explanation of the definition principles is provided in section 2.6.2.

2.4 Context, guide for use, and collection methods principles overview

The context of a data standard defines the setting within which the subject data has meaning:

1. A metadata item may exist within a specific context.

2. Context must only contain information about the environment or setting within which a metadata definition is valid.

3. The contexts of two metadata items must be compatible when the definition of one metadata item references a term defined in another metadata item.

An explanation of the context principles is provided in section 2.6.3.

A data standard may include guide for use information to provide advice or interpretation on how to use the data standard. Guide for use information must only be included if it provides information on the use of the metadata item or data collected:

- In a metadata item other than a data element, 'guide for use' is about how to use the metadata item itself, not about any data that may be collected or used

- In a data element, 'guide for use' may also include information about to how to use or interpret the data.

An explanation of the guide for use principles is provided in section 2.6.4.

A data standard may include collection methods information to provide advice or instructions on how the data are to be collected or captured.

An explanation of the collection methods principles is provided in section 2.6.5.

2.5 Value domain principles overview — permissible and supplementary values

An enumerated value domain is a value domain that is specified by a list of all its permissible values. A non-enumerated (or described) value domain is a value domain that is specified by a description rather than a list of all permissible values. We use the term 'described' for our purposes to reflect the updated ISO 11179-3:2013/AMD1:2020 standard.

For example, an enumerated value domain for age ranges might include the following permissible values:

1. CODE 1: <18 years
2. CODE 2: ≥18 years and ≤64 years
3. CODE 3: ≥65 years

By contrast, a described value domain for age may simply specify the format N[NN], meaning that the permissible values for age in years should be a number between 1 and 3 digits in length.

In both enumerated and described value domains, one or more supplementary values may be required to capture 'missing' information. The following principles should be considered in the initial stages of any data development activity or data collection project. However, we acknowledge that when the metadata for a data set specification is included in METEOR, it may often be too late to take these principles into account (for example when describing data that have already been collected.)

1. Permissible values must contain value meanings that are exhaustive and mutually exclusive within the value domain.
2. Permissible values must be a true representation of the concept defined in the data element.
3. Permissible values must avoid the use of a code value for 'other' that:
    - is contiguous with the last code in the sequence of permissible values or that, in any other way, does not provide for inclusions in the future
    - may be commonly used as a supplementary value.
4. The need for supplementary values in a value domain should be considered carefully.
5. Supplementary code values that are contiguous with the last code in the permissible value sequence should be avoided.
6. Supplementary values should be used consistently in a data collection by using:
    - a default supplementary value meaning of 'not stated/inadequately described' to limit variations in the meaning within a specific data collection
    - a logical set of supplementary values if using more than one supplementary value.

7. A supplementary value code field size should be the same as the permissible value, where possible.

8. A valid permissible value must not be used as a supplementary value (and vice versa).

9. In described value domains, the supplementary value used must not be a valid permissible value.

An explanation of the value domain principles is provided in section 2.6.6.

2.6 Explanation of the principles for the development of good data standards

An explanation and generic examples of the principles for the development of good data standards are provided below. These principles generally relate to the metadata types: object class, property, data element concept, value domain, classification scheme, glossary item, data element, and data set specification.

All examples are provided for illustration and/or comparison purposes only.

2.6.1 Name principles

1. **A name must be unique for the metadata item type and context**

   The name given to a standard must be unique within METEOR for each metadata item type. This means that there must not be two identical metadata item types at *Standard* status (e.g., two data element standards) with the same name. This does not mean, however, that there cannot be metadata items at *Standard* status and 'superseded' status with the same name (e.g., a standard object class and a superseded object class both named 'Episode of residential care').

   It is important to consider the environment or setting in which the metadata item is applicable, as the name given to a metadata item must also be unique within the context of the item. This means there cannot be two standard metadata items (e.g., two standard object classes) with the same name and applicable in the same context. In theory, however, there could be two standard items with the same name (e.g., two glossary items) if the environment or setting in which they are applicable is different, although in practice this should be avoided to save confusion.

2. A name must reflect the concept being defined

The name of a metadata item must clearly reflect and identify the concept being defined. This not only helps in the understanding of the item, it also aids in the searching of metadata items in METEOR.

Example: Concept 'type of clinical assistance a person receives in their home' name

	Name	Reason name is poor/good
Poor name	Home help	The name is not a true reflection of the concept so it is not clear from the name that the metadata item is about clinical assistance received in the home.
Good name	Home based clinical assistance type	The name clearly identifies the concept.

3. A name must be stated in the singular (unless the concept itself is plural in nature)

To provide clarity of understanding, the name given to a metadata item must be stated in the singular, not in the plural or collective form. The exception to this is if the concept being named is plural in nature, such as in the case of a value domain. As a value domain is a set of permissible values, the name given to a value domain may be plural.

Example 1: Concept 'person' name

	Name	Reason name is poor/good
Poor name	People	Name is stated in the collective form.
Good name	Person	Name is stated in the singular.

Example 2: Concept 'person' name

	Name	Reason name is poor/good
Poor name	Service contact dates	Name is stated in the plural. Note: If a metadata item was about a (singular) set or group of service contact dates, the name 'Set of service contact dates' could be used.
Good name	Service contact date	Name is stated in the singular.

4. A name must avoid the use of words that imply a preselected single instance

Avoiding the use of words in the name that imply a preselected single instance is necessary to enable the item to apply to any occurrence of the concept.

Example: Concept 'admission date' name

	Name	Reason name is poor/good
Poor name	Date of this admission.	The name implies a specific instance of an 'admission'.
Good name	Admission date	The name indicates that the metadata item applies to any 'admission'.

5. A name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item

If necessary, the name of a metadata item may contain abbreviations (including acronyms or initialisms), as long as the abbreviations used are commonly understood or widely accepted. In using an abbreviation in a name, however, it is important to note that an abbreviation that has a specific meaning in one environment, may have a different meaning in another environment. This can create confusion and misunderstandings and lead to the misinterpretation of data. In such situations, it is best to avoid ambiguity by using full words, not abbreviations, in a name.

	Name	Reason name is poor/good
Poor name	Date of this admission.	The name implies a specific instance of an 'admission'.
Good name	Admission date	The name indicates that the metadata item applies to any 'admission'.

Commonly understood or widely accepted abbreviations include those that are more readily understood than the full form of a complex term and have been adopted as a term in their own right, such as 'radar', 'laser' or 'pH'.

If an abbreviation (such as an acronym) is used in a name, it must be spelt out in full followed by the abbreviation in parentheses when the term is next used (generally this will be in the definition).

Example: Use of abbreviation in a name

	Example	Reason use of abbreviation in name is poor/good
Poor use of abbreviation in a name	Name: AUDIT frequency alcohol consumption Definition: The frequency of alcohol consumption as measured by the AUDIT.	The meaning of the 'AUDIT' in the name may not be commonly understood and it is not stated in full in the definition.
Good use of abbreviation in a name	Name: AUDIT frequency alcohol consumption Definition: The frequency of alcohol consumption as measured by the Alcohol Use Disorders Identification Test (AUDIT).	The meaning of 'AUDIT' in the name is subsequently stated in full in the definition followed by the acronym in parentheses. This makes the meaning of the 'AUDIT' clear.

In relation to the name given to a data set specification, it is acceptable to use the acronym for the data set type in the data set name.

Example: Acceptable use of a data set type acronym in a data set name

Data set type	Acronym	Name example
National minimum data set	NMDS	Admitted patient care NMDS 2024–25
Data set specification	DSS	Adoptions DSS 2022–23
National best endeavours data set	NBEDS	Prisoner health NBEDS 2022
National best practice data set	NBPDS	Person and provider identification in healthcare NBPDS

2.6.2 Definition principles

1. A definition must be unique

The definition of a standard must be unique within the context of the item. One or more characteristics expressed in the definition must differentiate the concept from other concepts.

2. A definition must be stated in the singular (unless the concept itself is plural)

To provide clarity of understanding, the concept expressed by a definition must be expressed in the singular, rather than the plural or collective form. The use of plurality in a definition is only acceptable when the concept being defined is plural in nature, such as in a value domain. The definition of a value domain may be plural as it encompasses all the permitted values for that domain.

Example 1: Concept 'article number' definition

	Definition example	Reason definition is poor/good
Poor definition	A reference number that identifies articles.	The use of the plural 'articles' in the definition is ambiguous as it could imply that an article number refers to more than one article. Note: If a single article number did in fact identify more than one article, then the definition may be correct although the name given to the metadata item would still need to be expressed in the singular (i.e. the singular name 'Article number' as used in this example).
Good definition	A reference number that identifies an article.	The use of the singular 'number' and 'article' in the definition makes it clear that an article is identified by one article number.

Example 2: Value domain definitions

	Name example	Definition example
Enumerated value domain	Age range code N	A code set representing age groups.
Described value domain	Total hours NNNN	Total number of hours.

3. A definition must state what the concept is, not only what it is not

A definition must not define a concept exclusively by stating what the concept is not.

Example: Concept 'freight cost amount' definition

	Definition example	Reason definition is poor/good
Poor definition	Costs that are not related to packing, documenting, loading, unloading and insurance.	The definition only identifies what is not included in the meaning of the concept. By not specifying what is included in the concept the meaning is ambiguous and open to interpretation.
Good definition	Cost amount incurred by an organisation in transporting goods from one place to another.	The definition identifies what is included so clearly describes what the concept means.

4. A definition must be stated as a descriptive phrase or sentence(s)

In the English language, a phrase is necessary to form a precise definition that includes the essential characteristics of the concept. A definition must be expressed as a complete, grammatically correct, descriptive phrase or sentence(s). It is not sufficient for a definition to simply consist of one or more synonyms for the name given to the concept or to restate the words in the name in a different order.

Example: Concept 'agent name' definition

	Definition example	Reason definition is poor/good
Poor definition (1)	Representative	The definition simply uses a near-synonym of the name. This is insufficient as it does not articulate the meaning of the concept.
Poor definition (2)	The name of an agent	Although the terms used in the definition may be understood, this definition is an illustration of the words that form the name being rearranged to form a definition. This is insufficient for a definition.
Good definition	The name of a party authorised to act on behalf of another party	The definition is written as a sentence and provides a clear understanding of the meaning of the concept.

5. **A definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item**

When an abbreviation (such as an acronym) is used in a definition, it must be spelt out in full on its first occurrence, followed by the abbreviation in parentheses.

Commonly understood or widely accepted abbreviations in a definition include those such as 'i.e.' (for 'that is') and 'e.g.' (for 'for example') and the like. It also includes abbreviations that are more readily understood than the full form of a complex term and have been adopted as terms in their own right, such as 'radar', 'laser' or 'pH'. When using abbreviations such as 'i.e.' or 'e.g.', the abbreviation and its accompanying text should appear in parentheses; for example, '... (e.g., the financial year)'.

Example 1: Concept 'tide height' definition

	Definition example	Reason definition is poor/good
Poor definition	The vertical distance from MSL to a specific tide level.	The definition is unclear because the acronym 'MSL' may not be commonly understood and some users of the data standard may need to refer to other sources to determine what it represents.
Good definition	The vertical distance from mean sea level (MSL) to a specific tide level.	The meaning of the definition is clear as the full name of 'MSL' is written in full before the abbreviation appears in parentheses.

Example 2: Concept 'blood oxygen level' definition

	Definition example	Reason definition is poor/good
Poor definition	The measurement of a SAO2 levels.	The definition is unclear because the acronym 'SAO2' may not be commonly understood and some users of the data standard may need to refer to other sources to determine what it represents.
Good definition	The measurement of the saturation level of oxygen in blood (SAO2).	The meaning of the definition is clear as the name of SAO2 is stated in full before the abbreviation appears in parentheses.

6. A definition must be expressed without embedding definitions of other data or underlying concepts

The definition of another (secondary) concept must not appear in the definition of the primary concept. When the definition of another concept, even if closely related, appears within another concept's definition, it tends to obscure the original definition. However, there may be cases where a term or related concept is considered necessary in order to convey the true meaning of the primary concept. A glossary item is recommended for any such term or concept that is sufficiently important to require defining. If the term or related concept appears more than once in the primary definition, only the first occurrence of the term or related concept should be linked to the glossary item.

Example 1: Concept 'severe hypoglycaemia history flag' definition

	Definition example (for illustration purposes the secondary embedded concept is italicised)	**Reason definition is poor/good**
Poor definition	A flag of whether a person has had severe hypoglycaemia, which is defined as hypoglycaemia requiring assistance from another party, in the last 12 months.	As well as defining what the primary concept 'severe hypoglycaemia history indicator' means, the definition has a definition for the related (secondary) concept 'severe hypoglycaemia' embedded within it. In order to understand the primary concept, it may be necessary to define what 'severe hypoglycaemia' means. If this is the case, the definition of the secondary concept should be included as a glossary item, unless defined elsewhere.
Good definition	A flag of whether a person has had severe hypoglycaemia in the last 12 months.	The definition only defines the primary concept 'severe hypoglycaemia history indicator'. In order to understand the true meaning of the definition, a relationship to a 'severe hypoglycaemia' glossary item (represented by bold in the definition) has been created. In this example, the 'severe hypoglycaemia' glossary item is defined as: 'Hypoglycaemia requiring assistance from another party'.

Example 2: Concept 'blood oxygen level' definition

	Definition example **(for illustration purposes the secondary embedded concept is italicised)**	**Reason definition is poor/good**
Poor definition	A flag of whether a person has an informal carer, such as a family member, friend or neighbour, who is providing care and assistance on a regular basis.	As well as a definition for what the primary concept 'informal carer existence indicator' means, the definition has a definition for the related (secondary) concept 'informal carer' embedded within it. In order to understand the primary concept, it may be considered necessary to define what 'informal carer' means. In such cases, the definition of the secondary concept should be included as a glossary item, unless defined elsewhere.
Good definition	A flag of whether a person has an informal carer.	The definition only defines the primary concept 'informal carer existence indicator'. In order to understand the true meaning of the definition, a relationship to an 'informal carer' glossary item (represented by bold in the definition) has been created. In this example, the 'informal carer' glossary item is defined as: 'An informal carer includes any person, such as a family member, friend or neighbour, who is giving regular, ongoing care and assistance to another person'.

7. A definition should state the essential meaning of the concept

Only the primary characteristics of the concept being defined should be included in the definition. The inclusion of non-essential characteristics or superfluous information should be avoided.

The level of detail or specificity necessary in a definition is dependent on the context in which the concept has meaning. The primary and essential characteristics that are necessary to convey the essential meaning of a concept will vary according to the level of generalisation or specialisation of the data. In one context, a more general definition may be adequate, whereas in a different (specialised) context a more detailed definition may be required.

Example 1: Concept 'date of death' definition

	Definition example	**Reason definition is poor/good**
Poor definition	The date upon which a person ceases to live as stated on their death certificate	The definition includes information about where date of death is recorded. This information is superfluous to defining the concept 'date of death'. This superfluous information is more appropriate for inclusion in the collection methods attribute.
Good definition	The date upon which a person ceases to live.	The definition states the essential meaning of the concept without any superfluous information.

Example 2 (specificity): Concept 'penguin' definition

	Definition example	Reason definition is poor/good
Poor definition	A bird of the southern hemisphere that is quite often black and white in colour, with wings that are insufficient to enable it to fly but enable it to swim efficiently (often to great depths and for long periods of time) through the predominately Antarctic waters that it inhabits.	The definition includes non-essential information that is superfluous to defining the 'penguin' concept.
Good definition (1)	A flightless bird that uses its wings to swim under water.	The definition is sufficient to differentiate a penguin from other flightless birds, particularly flightless aquatic birds that do not use their wings to swim under water. However, if it was necessary to differentiate one species of penguin from another (e.g., southern versus northern hemisphere), the definition does not have enough specificity to do so.
Good definition (2)	A flightless bird of the southern hemisphere that uses its wings to swim under water.	If such data was required, the definition provides the level specificity to differentiate a southern hemisphere penguin from a northern hemisphere penguin.

8. A definition should be precise and unambiguous

The exact meaning and interpretation of the defined concept should be apparent from the definition. A definition should be clear enough to allow only one possible interpretation.

Example: Concept 'country of birth' definition

	Definition example	Reason definition is poor/good
Poor definition	The country a person is from.	The definition does not precisely define the concept and is ambiguous. A county a person is 'from' could be interpreted in many ways, such as the last country a person resided, which is not necessarily the county a person was born.
Good definition	The country in which a person was born.	The definition is precise and unambiguous.

9. A definition should be concise

Although a definition needs to be comprehensive, it should also be as brief as possible by avoiding the inclusion of extraneous information or superfluous words.

Extraneous information or superfluous words to be avoided in a definition include:

- statements about the rationale, functional usage, domain or procedural information for a metadata item (see principle 11 below)
- repeating the name of the item being defined.

Example: Concept 'character set name' definition

	Definition example	Reason definition is poor/good
Poor definition (1)	The name given to the set of phonetic or ideographic symbols in which data is encoded, for the purpose of this metadata registry, or, as used elsewhere, the capability of systems hardware and software to process data encoded in one or more scripts.	In the definition all the information after '... data is encoded' is extraneous.
Poor definition (2)	A character set is the name given to the set of phonetic or ideographic symbols in which data is encoded.	The definition repeats the name of the concept 'character set name' at the beginning of the definition, which is superfluous to the definition.
Good definition	The name given to the set of phonetic or ideographic symbols in which data is encoded.	The definition is concise without any superfluous information.

10. A definition should be able to stand alone

The meaning of the concept should be apparent from the definition. Additional explanations or references should not be necessary in order to understand the meaning of the definition.

Example: Concept 'school location city name' definition

	Definition example	Reason definition is poor/good
Poor definition	See 'school site'	The definition does not stand alone as it requires the aid of a second definition (i.e. school site) to understand the meaning.
Good definition	The name of the city where a school is located.	The definition stands alone. It does not require another reference or definition in order to understand the meaning.

11. A definition should be expressed without embedding rationale, functional usage, domain information, or procedural information

A definition should be expressed without the inclusion of statements about the rationale, functional usage, domain or procedural information for the metadata item because these statements contain information that is extraneous to the definition itself. If such statements are considered necessary, they may be included in other attributes as indicated below:

Placement of information superfluous to a definition:

Information type	Attribute(s) for information type
Rationale, purpose or justification for a given definition or metadata item (e.g., ' ... for the purpose of ...' or 'this item is collected for the analysis of ....').	Should be included in 'comments' attribute in a data element or 'scope' in a data set specification.
Functional usage (e.g., 'this data element should not be used for ...' or 'this item can be used in calculating the total amount ...').	Should be included in 'guide for use' or 'collection methods', whichever is most appropriate (depending on the functional usage statement).
Domain information (e.g., '... in an emergency department ...', or '... as determined by a health professional ...').	Domain information should not be included in the definition as it is about the context or setting in which the data are collected. As such, domain information should be included in the 'context' attribute, wherever possible. In some cases, domain information may be best included in 'collection methods'.
Procedural (e.g., 'this data element is used in conjunction with data element [name of data element]').	Remarks about procedural aspects should be included in the 'guide for use' or 'comments'.

12. A definition should avoid circular reasoning

To avoid circular reasoning, a definition should not use another concept's definition as its definition. Circular reasoning occurs when one concept (concept A) is defined with the aid of another concept (concept B) that is, in turn, defined with the aid of the first concept (concept A), and should be avoided.

Example: Circular reasoning in definitions

	Definition	Reason definitions are poor
Employee ID number (Concept A)	A number assigned to an employee.	Each definition refers to the other for its meaning, and as a result neither definition provides a true understanding of either concept.
Employee (Concept B)	A person corresponding to an employee ID number	

13. A definition should be expressed in the present tense

A definition should be expressed in the present tense, rather than past or future tense.

Example: Concept 'hospital admission' definition

	Definition example	Reason definition is poor/good
Poor definition	The administrative process whereby a hospital accepted responsibility for a patient's clinical services.	The definition is expressed in the past tense.
Good definition	The administrative process whereby a hospital accepts responsibility for a patient's clinical services.	The definition is expressed in the present tense.

14. A definition should use the same terminology and consistent logical structure for related definitions

A common terminology and syntax for similar or associated definitions should be used to facilitate understanding. Where the terminology and syntax are not the same, it may lead to an assumption there is an implied difference between the related definitions that may not exist in reality.

Example 1: Different terminology used in definitions for related concepts

	Definition examples (italics used for illustration purposes only)	Reason definition is poor/good
'Admitted patient'	A patient who undergoes a hospital's formal admission process to receive *hospital treatment.*	The definitions in this example use different terminology for essentially the same thing (i.e. '*hospital treatment*', '*treatment and/or care*' and '*clinical services*'). In order for each definition to be completely unambiguous, the same terminology (in this case '*treatment and/or care*') should be used in each definition.
'Formal admission'	An admission in which the administrative process records the commencement of *treatment and/or care* and/or accommodation of a patient.	
'Admission'	The administrative process whereby a hospital accepts responsibility for a patient's *clinical services*.	

Example 2: Comparison of syntax used for 'formal admission' and 'statistical admission' definitions

	Definition examples (italics used for illustration purposes only)	Reason definition is poor/good
Poor definitions for related concepts 'Formal admission' and 'Statistical admission'	Formal admission: The administrative process that records the commencement of treatment and/or care and/or accommodation of a patient	A different syntax is used at the beginning of each definition for these related concepts.
	Statistical admission: An admission in which the administrative process records the commencement of a new care type for a patient within one continuous hospital stay.	
Good definitions for related concepts 'Formal admission' and 'Statistical admission'	Formal admission: An admission in which the administrative process records the commencement of treatment and/or care and/or accommodation of a patient.	A different syntax is used at the beginning of each definition for these related concepts.
	Statistical admission: An admission in which the administrative process records the commencement of a new care type for a patient within one continuous hospital stay.	Both definitions use a common syntax (i.e. they both begin with 'An admission in which the administrative process records the commencement of ...').

15. A definition should be appropriate for the type of metadata item being defined

The METEOR metadata registry contains different types of metadata with each metadata type playing a different role. A definition should be appropriate for the metadata item being defined.

Definition requirements by metadata item type:

Metadata item type	Definition requirements
Object class	*An object class is the 'thing' of interest for which data is collected. It is a stand-alone concept and its definition should not contain any specific information that relates to any other metadata item (e.g., an object class definition should not refer to a property). An object class is a generic type of metadata item and the definition should reflect this. Consider the reusability of the object class when forming its definition.*
Property	A property is a characteristic of the 'thing' of interest. It is a stand-alone concept and its definition should not contain any specific information that relates to any other metadata item (e.g., a property definition should not refer to an object class). A property is a generic type of metadata item and the definition should reflect this. Consider the reusability of the property when forming its definition.
Data element concept	A data element concept is a concept that is independent of any representation. This means that a data element concept's definition must not contain reference to actual representational or data values. The definition is a fusion of the object class and property (i.e. the data element concept's 'building blocks'), although it does not need to be a one-to-one match of the object class and property definitions. However, the definition should include the essential information about the object class and property to provide meaning to the data element concept.

Metadata item type	Definition requirements
Value domain	A value domain is a set of permissible values. The permissible values may either be enumerated or expressed via a description. The definition should be specific and may need to contain information about the environment in which the value domain exists. Although a value domain definition needs to be specific, consider the potential reusability of the value domain when forming its definition.
Data element	A data element is a fusion of a data element concept and its representative value domain (i.e. the data element's 'building blocks.') N.B. a data element's definition does not need to be a one-to-one match of the data element concept and value domain definitions. However, the definition should include the essential information about the data element concept and value domain to provide meaning to the data element.
Glossary item	The definition for a glossary item does not require as strict adherence to all definition principles as other types of metadata items. The definition in a glossary item may be more detailed, contain more than one concept (if the term being defined requires it) and any other descriptive phrases that unambiguously define the concept.

2.6.3 Context principles

1. Metadata may exist within a specific context

The context for a metadata element should be closely linked to its definition. It could be the setting in which data collection or use is valid (e.g., juvenile justice or intensive care), or it could be a whole sector of service or care (such as custodial services or admitted patient care). It could even be more general, covering the whole of the health sector, or across service sectors. For example, the term 'admission' has many meanings, but within the context of hospital data, it means the admission of a patient into a hospital. If the context attribute is left blank, this implies that the definition of meaning is valid across all contexts.

Some examples of appropriate use of the context include:

- public health
- a community aged care program
- a supported accommodation assistance program
- an emergency department.

Information about why the data element is important for collection should not be included in the context attribute—for example, 'this item is collected for the analysis of outcome by treatment'. The purpose of justification for a data element may be included in the 'comments' attribute or may be more appropriate as part of the data set specification (DSS).

Example: Context attribute left blank

Concept	Reason why context may be left blank
Person	'Person' always remains an individual human being no matter what the context.
Height	'Height' is always a measurement of distance in the vertical plane no matter what the context.
Hospital census	'Hospital census' can be applicable in more than one context but explicitly includes environment in its definition.
Health service provider	'Health service provider' has contextual information in the name and definition.

2. Only information that is relevant to the environment or setting within which the metadata item's definition is valid must be included in the context attribute

Non-contextual information, such as the rationale or purpose of a metadata item, should not be included in the context attribute.

Example: Inappropriate information in context attribute

	Information	Reason information is inappropriate for context attribute
Context (1)	This information is required for the analysis of …	The information in context (1) and (2) is about the purpose of the data collected or the justification for the development of the metadata item, rather than the environment or setting in which each metadata item has meaning. Information about the purpose or justification for a metadata item should be included in the comments attribute if such information is necessary to provide a full understanding of the item. In a data set specification, information about the purpose of the collection should be included in the scope attribute.
Context (2)	This data is required for long term planning and policy formulation in …	
Context (3)	Public health and health care. Body Mass Index (BMI) is used as an indicator of …	The first sentence is sufficient context information. The second sentence is about the purpose or justification of the metadata item and should be included in the comments attribute.

3. The contexts of two metadata items must be compatible when the definition of one metadata item references a term defined in another metadata item

Where a concept in one is metadata item is defined in terms of another, the contexts of both items must be compatible.

For example, if a 'diagnosis' glossary item has a 'health services' context, it would be problematic to reference that glossary item to help define an assessment event that is outside of the health services environment. However, it would be valid to reference 'diagnosis' in a metadata item that had a context of 'admitted patient care', 'emergency department care', 'acute coronary syndrome reporting' and so forth, as they are all subsets of 'health services.'

2.6.4 Guide for use principles

The guide for use attribute is used to provide any instructions on how to use, interpret and apply information in a data element. Use the section to describe any restrictions on how the data element is intended to be interpreted or applied which are specific to the relationship of the data element concept and the value domain. For example, describe how other data elements that should be used in conjunction with the current data element, any formulae which guide calculations, or coding guidelines.

For metadata items such as an object class, property, data element concept, and value domain, guide for use information is often not mandatory, although it may be useful to provide advice on the interpretation of codes or values in a value domain. Information about how to collect data should be in the collection methods attribute, see section 2.6.5.

Examples: The type of information that may be included in guide for use

Type of guide for use information	Example
The meaning or interpretation of codes of values	'The start date of treatment is recorded regardless of whether treatment is completed as intended or not.'
	'CODE 1 Duplicate record
Number of values to be collected	This code is used where multiple records are found for a single entity.'
	'This code set represents common sites of cancer metastasis. Where multiple sites occur, all should be recorded.'
What is collected or included	'Each surgical procedure used should be recorded.'
What is not collected or excluded	'Collected for radiation therapy and systemic therapy only. Date of surgical treatment is collected as a separate item.'
Setting the scope of specific data to be collected	'Does not include services provided through community health settings, such as community and child health centres.'
	'This value domain is not applicable for data collected about children (i.e. person's aged <18 years.)'
The organisation of the data for analysis or use	'This value domain is to be used for persons aged ≥18 years .'
	'Height data should be presented in 5cm groupings only.'

2.6.5 Collection methods principles

The collection methods attribute is used to show how data is collected. Use this section to provide instruction for the capture of data and outline any guidelines for the collection of the data element which are specific to the data element concept and the value domain. For example, data collection formats, minimum data collection requirements, requirements for supportive material, and how missing or not stated data is to be treated. While the obligation to complete this attribute is conditional, it is good to include relevant information if it will help other users gain insight into the data.

Information about interpretation of codes and values should be in the guide for use attribute, see 2.6.4. Information about purpose or rationale for collection is more appropriate in the comments attribute.

Examples: The type of information that may be included in collection methods

Type of guide for use information	Example
Data collection instruments or tools	'Standardised height measurement equipment should be used.'
	'This information should be sought from the patient's medical record.'
Who collects or records the data.	'Measurement of lipid levels should be carried out by laboratories which have been accredited by the National Association of Testing authorities.'
How or when to record the data.	'The full name of the agent should be recorded if the coding manual is not available.'
	'This item is completed when the person with cancer has been offered and accepted clinical trial entry.'
Period for which the data are collated and reported.	'Financial year ending 30 June each year'.
Other related data that are collected in conjunction with the data.	'If codes 1 or 2 are recorded, the dose of radiation received should also be recorded.'
	'Collected in conjunction with triage time.'
Recommended questions to ask.	'The permissible values for this data element are used to form the response categories to the question:
Note: Standard questions, such as those recommended by the Australian Bureau of Statistics, should be used where possible. If these are not available and questions have to be developed, it is important to bear in mind that the wording of a question can result in different responses. Leading questions that give the impression that there is a correct response should be avoided. Asking two questions within the one question should also be avoided. Questions should be kept short and simple, using language that is easily understood.	'Which one of the following reasons best describes why the person was not provided assistance?'.

2.6.6 Value domain principles — permissible and supplementary values

1. Permissible values must contain value meanings that are exhaustive and mutually exclusive within the value domain

An enumerated value domain is specified by a list of all its permissible values. For statistical purposes, the permissible values must be exhaustive and mutually exclusive.

Exhaustive set of values:

If a set of permissible values is not exhaustive of all possible values, there would be no place for data that does not fall within any of the categories that make up the set of values. Where necessary, permissible values should be made into an exhaustive set of values by adding an 'other' value category to aggregate all other possibilities not covered by the set of values. See example 1 below for exhaustive set of values and principle 3 for more information on the allocation of a code value for 'other'.

In some cases, however, it may not be appropriate to include an 'other' value category to make a set of values exhaustive (e.g., if the data being collected only requires a specific (non-exhaustive) set of values). In such cases, the name given to the value domain, and its associated definition, must reflect the concept defined by the non-exhaustive representation values. Another option is to include a statement in the 'guide for use' attribute that only the values listed are of interest for the data element.

For example, in a collection related to older people, a value domain representing age groups might have permissible values commencing with CODE 1: '55–64.' This value domain could dispense with an 'other' value category for people aged <55, provided the name of the value domain included the words 'older people' (e.g., 'Older person age range code N[N]') and a 'guide for use' attribute gave the instruction: "This element is only suitable to collect the age range of persons aged over 55 years."

Example 1: Exhaustive set of permissible values for 'mode of contact'

	Representation values and meanings	Reason set of permissible values is poor/good
Poor set of permissible values	1. By phone 2. By email	Note: This example assumes various modes of contact are possible (and are of interest) not just the ones listed. The list of permissible values are not exhaustive, as the list does not represent a full set of possible modes of contact. For example, there is no value for contact made in person. However, if 'By phone' and 'By email' were the only specific modes of contact of interest for a particular data collection, it may be appropriate for this to be reflected in the value domain name and/or definition; or a statement could be included in the Guide for use attribute that these two modes of contact are the only modes of contact that are of interest.

	Representation values and meanings	Reason set of permissible values is poor/good
Good set of permissible values	1. By phone 2. By email 5. Other	The permissible values are exhaustive with the inclusion of code 5 'Other'. The use of 'other' by itself in this example signifies 'other modes of contact' or 'other modes of contact not elsewhere categorised'. Note: The reason code 5 has been allocated to 'other' in this example (rather than code 3 which is the next code value in the code value sequence after code 2 'By email'), is explained in principle 3 below.

Mutually exclusive set of values:

A set of permissible values must be mutually exclusive in order for the value meanings to be distinct from one another without any overlapping meanings. Permissible values that are not mutually exclusive create uncertainty around data collection (e.g., if a respondent is recorded against more than one value category). See example 2 below.

Being mutually exclusive, however, should not be confused with the ability, where applicable, for more than one value meaning to legitimately apply in an implementation of a value domain. For example, in a set of permissible values representing the type of treatment for a particular disease, a patient may undergo more than one treatment type so more than one permissible value could legitimately be recorded for a patient.

Example: Mutually exclusive set of permissible values for 'after school carer'

	Representation values and meanings	Reason set of permissible values is poor/good
Poor set of permissible values	1. Parent 2. Relative 3. Neighbour 5. Other	The permissible values are not mutually exclusive because two of the categories overlap — i.e. code 1 'Parent' could be considered a subset of code 2 'Relative'. As a result, it is not clear which value applies to a parent and could lead to a parent who provides after school care incorrectly being counted twice; once against code 1 and once against code 2.
Good set of permissible values	1. Parent 2. Relative – other than child's parent 3. Neighbour 5. Other	The permissible values are mutually exclusive as code 2 'Relative' includes the qualification that it does not include a child's parent. This means there is no overlapping value categories.

2. Permissible values must be a true representation of the concept defined in the data element

It is possible that a question may exist on a data collection instrument that has a set of possible responses combining two concepts (e.g., the presence of disease and the type of disease). While not best practice, having mixed concepts on a data collection instrument does sometimes occur as a means of minimising the burden on data collectors. However, it is not acceptable to mix concepts when a data element is used to standardise data.

A data element must only include representational values (i.e. the value domain with its set of permissible values) that represent a single concept as defined by a data element concept. Where data are collected on two related concepts, each concept must be represented by a separate data element (e.g., one data element for presence of disease and one data element for type of disease).

Example: Permissible values for a 'mode of contact with a client' data element

	Representation values and meanings	Reason set of permissible values is poor/good
Poor set of permissible values	1. No contact 2. Phone contact 3. Email contact 4. In person	The inclusion of the value 'No contact' does not align with the concept 'mode of contact' for the data element. Although 'No contact' is not a mode of contact, it could be an appropriate representation for a data element concept about whether or not contact is made with a client. If data were also required on such a concept, a separate data element would be required with the appropriate representation values (e.g., 'yes/no' values).
Good set of permissible values	1. Phone contact 2. Email contact 3. In person	The permissible values reflect the 'mode of contact' concept for the data element.

4. Permissible values must avoid the use of a code value for 'other' that may limit future expansion of the code set or makes use of a common supplementary value

Permissible values must avoid the use of a code value for 'other' that:

- is contiguous with the last code in the sequence of permissible values or that, in any other way, does not provide for inclusions in the future
- may be commonly used as a supplementary value.

The value 'other' (and any other value that is a synonym for 'other'; for example, 'other modes of contact not elsewhere categorised'), is a permissible value, not a supplementary value. In allocating a code value for 'other' (or a synonym for 'other') in an enumerated set of permissible values, it is important to consider any possible future expansion of the value categories. It is also important to take into account the code values used for any supplementary values (if applicable to the value domain).

Avoiding a code value for 'other' that is contiguous with the last code:

When using 'other' to ensure a set of permissible values is exhaustive, avoid specifying a code value for 'other' that is contiguous with the last code in the list of permissible values (i.e. if the last code in the list ends with 3, 'other' should not be given the value of 4). The reason for this is to give 'space' for the code set to be expanded, if necessary, in the future. If 'other' is given a code value that is contiguous with the last permissible code value, and another category is subsequently added to the list of permissible values at some future point, the value categories would not appear in a 'logical' sequence. If the list of permissible values is renumbered as a result of its expansion to put the value categories in order, this would result in data for subsequent collection periods being coded differently from earlier periods. This in turn may create problems for time series data analysis.

Avoiding a code value for 'other' that may be commonly used as a supplementary value:

In addition to the above, a code value for 'other' that is commonly used as a supplementary value should also be avoided. This generally means avoiding the use of code values '7', '97', '997' or '9997' and so forth that are commonly used for 'not applicable'; '8', '98', '998' or '9998' commonly used for 'unknown'; and '9', '99', '999' or 9999' commonly used for 'not stated/inadequately described'. See principle 5 below for further information about supplementary values.

Example: Allocation of code value for 'other' in a 'mode of contact' set of permissible values

	Representation values	Reason set of permissible values is poor/good
Poor set of permissible values - with 'other'	1. By phone 2. By email 3. In person 4. Other	The set of permissible values contains a code value for 'other' (code 4) that is contiguous with code 3 'In person'. If it was subsequently decided to collect data on 'mode of contact' that included 'by letter', there would be no space in the code values for the additional value category to be added before 'other'. See expanded set of permissible values lists (1) and (2) below.
Poor set of permissible values – expanded list (1)	1. By phone 2. By email 3. In person 4. Other 5. By letter	In this expanded set of permissible values, code 5 has been allocated for the additional category 'By letter'. As a result, 'by letter' is listed after 'other', which makes the list of values appear out of order (i.e. not in a 'logical' sequence).
Poor set of permissible values – expanded list (2)	1. By phone 2. By email 3. In person 4. By letter 5. Other	In this expanded set of permissible values, the value category 'other' has been renumbered to enable the additional category 'By letter' to appear in order. As a result, problems may arise with comparing data over time.
Good set of permissible values - with 'other'	1. By phone 2. By email 3. In person 4. Other	The set of permissible values contains code value for 'other' (code 6) that is not contiguous with code 3 'In person'. This allows for future expansion of the set of permissible values, if required, without the values appearing out of order or the code set being renumbered. See expanded set of permissible values below.

	Representation values	Reason set of permissible values is poor/good
Good set of permissible values – expanded	1. By phone 2. By email 3. In person 4. By letter 5. Other	In this expanded set of permissible values, there was space in the set of codes between code 3 'In person' and code 6 'other' for code 4 to be allocated to the additional value category 'by letter'. The value codes and categories appear in a 'logical' sequence.

6. The need for supplementary values in a value domain should be considered carefully

Data collected for statistical purposes needs to be precisely defined and enumerated to provide meaningful statistical information. For statistical purposes, it is also important that 'missing information' be understood. Supplementary values are an important means of ensuring the integrity of a statistical data collection by enabling a data analyst to understand why a valid value is missing from a field where such data is expected.

When a data collection and/or recording system includes a mandatory field, a supplementary value will be necessary to avoid errors if there is a valid reason for a value to be missing. Reasons why a value may be missing include: the information is unknown or not applicable; data have been collated from multiple sources, some of which did not collect the variable, or; the collection instrument was only partially completed (e.g., the reverse of a paper form was not filled in.)

Careful consideration needs to be given to the use of supplementary values and their meanings. Supplementary values are not required for all value domains. For example, where the element collects a binary 'Yes/No' response, analysis may only be required for responses which are explicitly 'Yes.' Alternatively, a response may be conditional on the response to another data element. When supplementary values are required, they do not fall within the scope of the value domain definition — i.e. they are not referred to in the value domain definition.

Additionally, not all potential supplementary values will be required for all value domains. Unless it is intended to analyse why data is missing, a single supplementary value of "Not stated/ inadequately described" is used, in order to limit variations in meaning. However, if the owner of a data collection wants to know the reasons for missing values (e.g., 'data provider refused to provide the information', 'data provider was unable to obtain the information as this time' or 'data provider did not know the information'), additional supplementary values could be appropriate as possible cues for further action.

7. Supplementary code values that are contiguous with the last code in the permissible value sequence are to be avoided

When using supplementary values, it is important to avoid using code values for supplementary values that are contiguous with the last code in the permissible value sequence. The reason for this is the same as when adding an 'other' value category to a set of permissible values (see principle 3 above); that is, to allow room for the code set to be expanded in the future, if necessary, without code values appearing out-of-order, or the need to re-allocate values. This can often lead to a reduction in data quality as a result of values being recorded incorrectly due to values being out of order.

Example: Allocation of supplementary value code for 'location of birthmark' set of permissible values

	Representation values *(italics used for illustration purposes only)*	**Reason set of permissible values is poor/ good**
Poor set of values	Permissible values: 1. Torso 2. Face 3. Arm 4. Leg 5. Other Supplementary values: 6. Not stated/inadequately described	This set of values does not allow room for possible expansion in the future because the supplementary code value '6' (not stated/ inadequately described) is contiguous with the last permissible code value '5' (other) (which itself is contiguous with the code value '4' (leg)). If the permissible value code set required expansion (e.g., to include a code for 'foot'), there would be two options to do this, neither of which is ideal: See 'Poor set of values – expanded set of permissible values (1)'. See "Poor set of values – expanded set of permissible values (2)'.
Poor set of values – expanded set of permissible values (1)	Permissible values: 1. Torso 2. Face 3. Arm 4. Leg 5. Other 6. Foot Supplementary values: 7. Not stated/inadequately described	To expand the code set to accommodate the additional 'foot' permissible value in this example, the next available permissible value (i.e. code 6) has been allocated to 'foot'. However, this has not only resulted in a permissible values code set that appears out-of-order (i.e. 'foot' appearing after 'other), it has also resulted in the need to change the 'not stated/inadequately described' supplementary value from '6' to '7'. This situation is not ideal.

	Representation values *(italics used for illustration purposes only)*	**Reason set of permissible values is poor/ good**
Poor set of values – expanded set of permissible values (2)	Permissible values: 1. Torso 2. Face 3. Arm 4. Leg 5. Foot 6. Other Supplementary values: 7. Not stated/inadequately described	To expand the code set to accommodate the additional 'foot' permissible value and keep the values in a logical order, in this example the permissible value 'other' has been changed from code '5' to code '6' so that code '5' can be allocated to 'foot'. As per the example above, this has also resulted in the need to change the 'not stated/ inadequately described' supplementary value from '6' to '7'. The changing of permissible code values and their meanings is not ideal, particularly for time series data, nor is the changing of the supplementary code value.
Good set of values	Permissible values: 1. Torso 2. Face 3. Arm 4. Leg 5. Other Supplementary values: 6. Not stated/inadequately described	This set of permissible values allows room for expansion between codes '4' (leg) and '8' (other). In addition, code '9' has been allocated to the supplementary value 'not stated/inadequately described' so it is not contiguous to the last code in the set of permissible values.
Good set of values – expanded set of permissible values	Permissible values: 1. Torso 2. Face 3. Arm 4. Leg 5. Foot 6. Other Supplementary values: 7. Not stated/inadequately described	As the original set of values (above) provided room for possible expansion, the category 'foot' can be added between codes '4' (leg) and '8' (other) without having to rearrange codes. The addition of the 'foot' permissible value has no impact on the supplementary value.

8. Supplementary values should be used consistently in a data collection

Supplementary values should be used consistently in a data collection by using:

- a default supplementary value meaning of 'not stated/inadequately described' to limit variations in the meaning within a specific data collection
- a logical set of supplementary values if using more than one supplementary value.

Consistency in the use of supplementary values within a data collection is important.

Use a default supplementary value meaning of 'not applicable/inadequately described':

Variations in the meanings of supplementary values within a data collection should be avoided. To limit variations in the meaning of values within a specific data collection, a default supplementary value meaning, such as 'not stated/inadequately described' is recommended (see common supplementary values below.)

If using more than one supplementary value, use a logical set:

Using a logical set of supplementary values when more than one supplementary value is required enables the consistent use of supplementary code values and their meanings across a collection (e.g., a data set should avoid having the code value '99' for 'unknown' in one data element, and the code value '98' for 'unknown' in another).

Common supplementary values:

Supplementary value code	Supplementary value meaning
7 (or 97, or 997, and so on depending on the field size)	Not applicable
8 (or 98, or 998, and so on depending on the field size)	Unknown
9 (or 99, or 999, and so on depending on the field size)	Not stated/inadequately described

N.B. Where multiple supplementary value codes are used, a guide for use should be included to clarify the difference between the values, e.g.,

CODE 8: Unknown. Use this code when the respondent did not know the answer.

CODE 9: Not stated/inadequately described. Use this code when the information is not stated or otherwise inadequately described (e.g. when a response has not been recorded, or is illegible.)

9. A supplementary value code field size should be the same as the permissible value, where possible

Ideally, the length of the field size of any supplementary value code should be the same length as the permissible values in the value domain, although this is not always possible to achieve. For example, if the codes for the permissible values use a field size that is 3 digits long (e.g., 001, 002, 003, etc.) the same field size should be used for the supplementary values (e.g., 997 for 'not applicable', and/or 998 for 'unknown' and/or 999 for 'not stated/inadequately described').

A set of permissible values may use up all of the codes for its specified field length (e.g., a set of permissible values using codes 1 through to 9 in a single digit field size). In such cases, if supplementary value(s) are required, ideally, the field size of the data element should be increased to accommodate the required supplementary value(s) (e.g., a single digit field size increased to two digits, and the supplementary value of code 99 for "not stated/inadequately described').

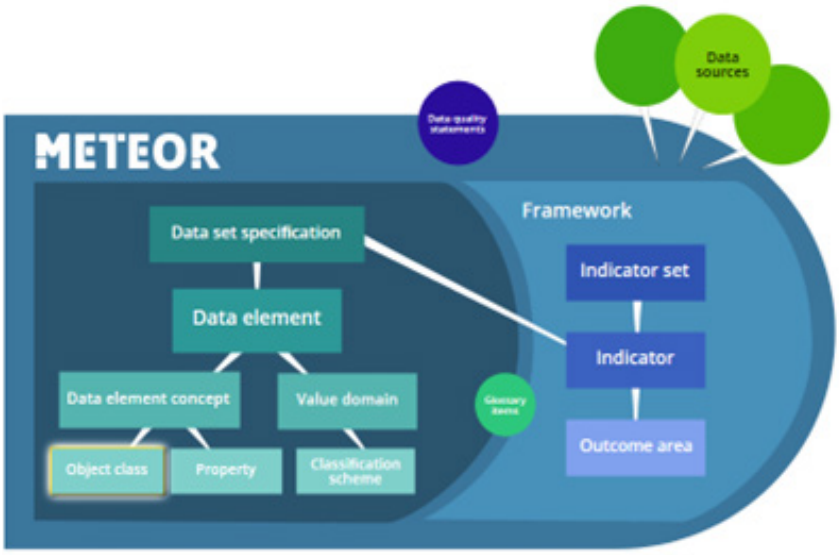
10. A valid permissible value must not be used as a supplementary value (and vice versa)

Permissible values are not supplementary values, and vice versa. Any value that is a permissible value must not be included as a supplementary value in a value domain. As stated in principle 4 above, this includes the permissible value 'other' (and any synonyms of 'other').

11. In described value domains, the supplementary value used must not be a valid permissible value

In described value domains (i.e. those without defined value meanings, such as in a measurement), the supplementary value used should not be a valid permissible value — it should be one that is not possible to be achieve based on the definition of the value domain. For example, if a data element collects the measurement of the height of a person in centimetres, it would be possible to use '997' (for 'not applicable'), '998' (for 'unknown') and '999' (for 'not stated/inadequately described') as supplementary values because the probability of a person being that tall approaches zero. However, it would not be valid to use the supplementary values of '97', '98' and '99' because these values could be actual person height values collected.

3 Object class business rules



3.1 Introduction

An object class, commonly referred to as an 'OC', forms the core of the metadata used within METEOR. An object class, expressed as a singular noun, represents the 'thing of interest', such as:

- a person/group of people or a service recipient or target group; for example: person, client, admitted patient, household
- a service/care event or episode; for example: community services event, episode of care, date
- a life event; for example: injury event, pregnancy
- an organisation or service provider; for example: hospital, community housing provider
- an asset associated with a service provider/recipient; for example: dwelling, available bed, identifier.

In some cases, the 'thing of interest' may be further specialised or sub-typed, depending on the data being collected and analysed. For example, 'person' could be sub-typed into the object class 'male' or 'female' or 'child' if data was only being collected on one of these sub-types. An object class may be broad (such as 'person') or narrow (such as 'female'). It is important to note, however, that if a concept is broadly applicable to the general population for example, it is better to use a broader object class, such as 'person', rather than a narrower one, such as 'female', even though at the time of initial data collection females may have been the only 'thing' of interest.

In such a collection, for example, it would be inappropriate to collect 'date of birth' data under the object class Female, as date of birth is a characteristic relevant to all persons. It would, however, appropriate to use the object class Female to collect data related to 'parity' or 'date of first antenatal screening', as these characteristics are not relevant to all persons.

Using the broader 'person' object class in this example means that if, in the future, the data collection can be broadened to include males as well as females, the 'person' object class would not need to be revised.

Remember the 'create once, use often' principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

3.1.1 For developers: Overview of object class attributes

Table 3.1.1.1 below provides an overview of the attributes requiring action by a developer when an object class is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 3.1.1.1: Overview of object class attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the object class.	Mandatory	3.2.1
Synonymous name(s)	One or more synonyms for the object class name within the context of the metadata item.	Optional	3.2.2
Definition	A concise statement that expresses the essential nature of the object class and its differentiation from other metadata items.	Mandatory	3.2.3
Context	A designation and/or description of the application environment or discipline in which the object class definition has meaning.	Optional	3.2.4
Guide for use	Advice or instructions for the interpretation or application of the object class.	Optional	3.2.5
Collection methods	Advice or instructions for the actual capture of data.	Optional	3.2.6
Comments	Any additional information that adds to the understanding of the object class.	Optional	3.2.7
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	3.2.8
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	*Obligation is completed by Registrar.	3.2.9
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	3.2.10

Attribute	Definition	Obligation to complete	Section in this Chapter
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	3.2.11
Relationship type	An indicator of relationships between metadata items.	Optional	3.2.12
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	* Obligation is completed by registrar.	3.2.13
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	* Obligation is completed by registrar.	3.2.14
Steward contact details	The details of at least one contact person for the steward organisation.	* Obligation is completed by registrar.	3.2.15

3.1.2 For registrars: Overview of object class attributes

Table 3.1.2.1 below provides an overview of the attributes requiring action by a registrar when an object class is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 3.1.2.1: Overview of object class attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	3.2.9
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Optional: This can only be created and viewed by registrars and have been designed to assist communication between registrars.	3.2.13
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	3.2.14
Steward contact details	The details of at least one contact person for the steward organisation.	Optional	3.2.15

3.2 Attributes requiring developer or registrar action

Attributes in the object class template requiring action by a developer or registrar are described below.

3.2.1 Name

A single or multi-word designation assigned to the object class.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The term 'event' should only be used in the name for an event-based object class in order to make it clear the item refers to an event, rather than a physical entity. For example, the name 'Injury event' signifies that the object class refers to the event in which an injury occurred, not the injury itself. 2. The broader term 'person' should be used in the name for a person/group of people/service recipient/target group object class (e.g., 'Person with diabetes'). 3. The following common rules for metadata also apply: The name must: • be unique • reflect the concept being defined • be stated in the singular • avoid the use of words that imply a preselected single instance • be concise as possible • The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name, for proper nouns, or when necessary for an acceptable abbreviation (see rule 4. below). 4. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations. 5. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 6. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. The following are not permitted: • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'ear, nose and throat')) • full stops • parentheses or square brackets • quotation marks

3.2.2 Synonymous name(s)

One or more synonyms for the object class name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters any acronyms/abbreviations used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for a property may include: Clinical intervention; Operation; Surgery 4. End the list of synonymous names without a full stop.

3.2.3 Definition

A concise statement that expresses the essential nature of the object class and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The definition should be expressed: precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 2. Do not repeat the name of the metadata item at the start of the definition. 3. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 4. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 5. If there is a need to define a term within the definition, a glossary item may be used. 6. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.
Notes	See chapter 11 'Glossary item business rules' if a new glossary item needs to be created.

3.2.4 Context

A designation and/or description of the application environment or discipline in which the object class definition has meaning.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. State or describe the application environment or discipline in which the object class has meaning, (e.g., Palliative care). 2. Do not include the justification or reasoning for the object class.
Notes	1. The context defines the setting within which the subject data has meaning. 2. The context attribute should be left blank if a metadata item is applicable in all contexts, or the context is implied by the metadata item name or definition. 3. See also section 2.6.3

3.2.5 Guide for use

Advice or instructions for the interpretation or application of the object class.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe how the metadata item is intended to be interpreted or applied.
Notes	Guide for use information is generally more applicable at the data element level where it provides information about how to use a data standard.

3.2.6 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Outline any collection guidelines for the metadata item (e.g., recommended data collection instruments).
Notes	Collection methods information is generally more applicable at the data element level where it provides information about how data are to be captured.

3.2.7 Comments

Any additional information that adds to the understanding of the object class.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

3.2.8 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item, choose 'edit item' to add the submitting organisation, in order to update registration status.

3.2.9 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

3.2.10 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

3.2.11 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

3.2.12 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. 1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR. For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

3.2.13 Unresolved issues

Comments which highlight issues for data committees or registrar consideration	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

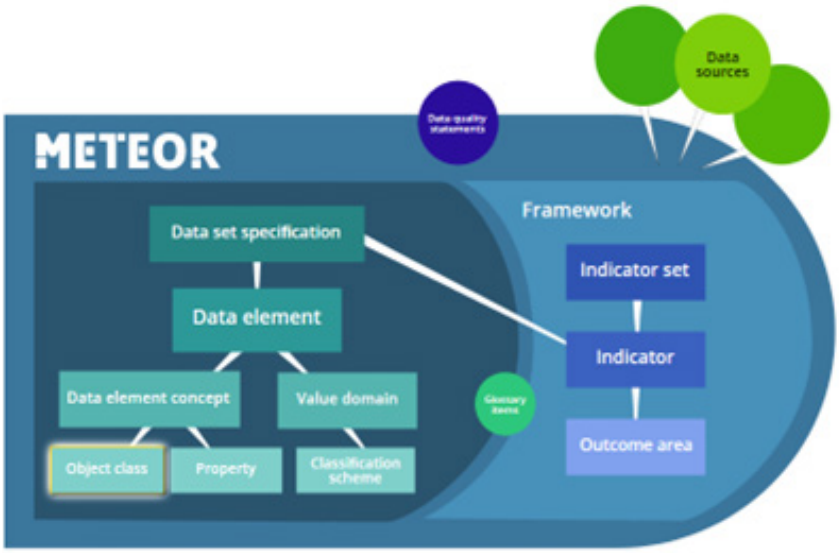
3.2.14 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. List the name, position title, organisational sub-unit, telephone number and email address of the person responsible for the submission. 2. Approval from each submitting organisation contact person must be received before any contact information is stored within METEOR.
Notes	This attribute can only be created and viewed by registrars.

3.2.15 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

4 Object class specialisation business rules



4.1 Introduction

An object class specialisation is a grouping of object classes which are related. The top object class is called the 'parent' and the sub-types under it are called 'children' object classes. These groups help make navigating the dozens of object classes in METEOR easier. When an object class reaches a registration status of *Candidate*, it should be assigned an object class specialisation. Only registrars have access to creating an object class specialisation.

4.1.1 For registrars: Overview of object class specialisation attributes

Table 4.1.1.1 below provides an overview of the attributes requiring action by a registrar. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Note: Only registrars can create an object class specialisation.

Table 4.1.1.1: Overview of object class specialisation attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Parent	The name of the object class from which one or more object classes are sub-typed.	Mandatory	4.2.3
Children	The name of any object classes which are sub-types of the parent object class	Mandatory	4.2.4
Definition	A concise statement that expresses the essential nature of the object class and its differentiation from other metadata items.	Mandatory	3.2.3

Attribute	Definition	Obligation to complete	Section in this Chapter
Context	A designation and/or description of the application environment or discipline in which the object class definition has meaning.	Optional	3.2.4

4.2.1 Name

A single or multi-word designation assigned to the object class specialisation.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	The following common rules for metadata apply: 1. The name must: • be unique • reflect the concept being defined • be stated in the singular • avoid the use of words that imply a preselected single instance • be concise as possible. 2. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name, for proper nouns, or when necessary for an acceptable abbreviation. 3. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations. 4. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 5. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 6. The following are not permitted: • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'ear, nose and throat')) • full stops • parentheses or square brackets • quotation marks

4.2.2 Description

A concise statement that expresses the facet in which the object class is specialised.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. The description should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the descriptions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related descriptions. 2. Do not repeat the name of the metadata item at the start of the description. 3. The description must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 4. The description must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 5. If there is a need to define a term within the description, a glossary item may be used. The description may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item
Notes	See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.

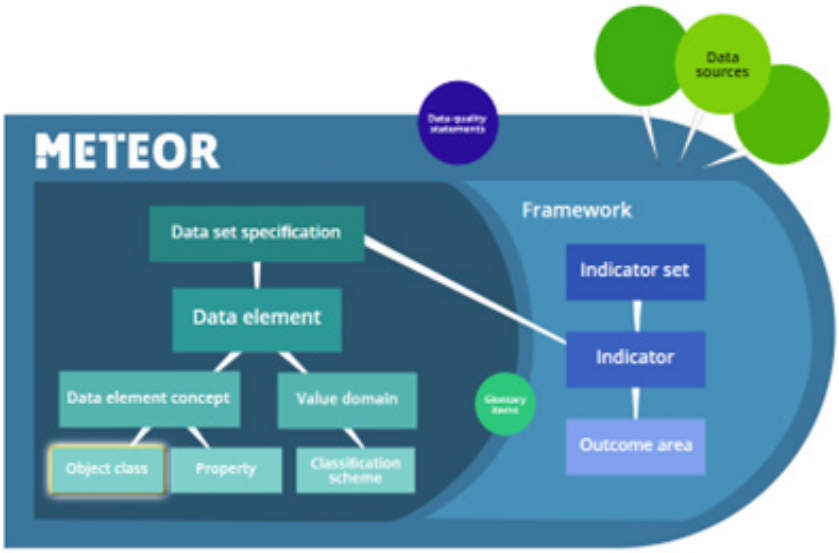
4.2.3 Parent

The name of the object class from which one or more object classes are sub-typed.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. Only one parent may be specified. 2. To assign the parent object class. Click the Choose button. 3. This opens a window from which there are three ways to find an object class item. Choose from: • item ID (if you know it) • A–Z listing • object classes by specialisations (to bring up a list)

4.2.4 Child

The name of any object classes which are sub-types of the parent of object class.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. Only one parent may be specified. 2. To assign the parent object class. Click the Choose button. 3. This opens a window from which there are three ways to find an object class item. Choose from: • item ID (if you know it) • A–Z listing • object classes by specialisations (to bring up a list) 4. Use the Add items button to add other necessary child object classes.

5 Property business rules



5.1 Introduction

A 'property' represents the characteristic or aspect of the identified object class (i.e. the 'thing' of interest) that we wish to know about and collect data on. For example, the characteristics of the object class 'person' could be 'sex', 'date of birth', 'area of usual residence', and so on. For the object class 'household' the characteristics could be 'assessable weekly income', 'weekly rent charged', 'low income status', and so on. Each characteristic is a property.

The property unambiguously describes the characteristic of the 'thing' of interest. In many cases, a broadly-defined property that enables reuse is appropriate, whereas in other cases, a narrowly-defined property may be required. For example, the broadly-defined property 'Episode start date' can be used for many types of episodes, such as episodes of residential care or episodes of mental health care. On the other hand, the properties 'Treatment cessation reason' and 'Service cessation reason', may be preferred over a generic 'Cessation reason' property because of the need to define what is ceasing. Consider how measures of the property are to be reported. For example, the broadly-defined properties 'Capital expenditure' and 'Recurrent expenditure' are preferred over properties which are specific to individual types of expenditure, such as 'Repairs and maintenance expenditure' or 'Depreciation costs', when these items are reported under the broad headings capital/recurrent expenditure.

Differentiating between what is the object class (the 'thing' of interest) and what is the property (the characteristic of the 'thing' of interest) may be difficult in some cases as the identification of object classes and properties is contextual. For example, in one context, 'identifier' may be defined as a property of the object class 'client' as it is a characteristic of a client. In another context, the object class could be 'identifier' and the property could be 'designation' or 'issuer' and so on.

Remember the 'create once, use often' principle:

Before creating a new property, it is important to check that property does not already exist in METEOR. See section 2.2

5.1.1 For developers: Overview of property attributes

Table 5.1.1.1 below provides an overview of the attributes requiring action by a developer when a property is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 5.1.1.1: Overview of property attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the property.	Mandatory	5.2.1
Synonymous name(s)	One or more synonyms for the property name within the context of the metadata item.	Optional	5.2.2
Definition	A concise statement that expresses the essential nature of the property and its differentiation from other metadata items.	Mandatory	5.2.3
Context	A designation and/or description of the application environment or discipline in which the property definition has meaning.	Optional	5.2.4
Property group	The grouping of properties with similar characteristics.	Completed by registrar.	5.2.5
Guide for use	Advice or instructions for the interpretation or application of the property.	Optional	5.2.6
Collection methods	Advice or instructions for the actual capture of data.	Optional	5.2.7
Comments	Any additional information that adds to the understanding of the property.	Optional	5.2.8
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	5.2.9
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Completed by registrar.	5.2.10
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	5.2.11

Attribute	Definition	Obligation to complete	Section in this Chapter
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	5.2.12
Relationship type	An indicator for relationships between metadata items	Mandatory	5.2.13
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Completed by registrar.	5.2.14
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Completed by registrar.	5.2.15
Steward contact details	The details of at least one contact person for each listed steward organisation	Completed by registrar.	5.2.16

5.1.2 For registrars: Overview of property attributes

Table 5.1.2.1 below provides an overview of the attributes requiring action by a registrar when a property is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 5.1.2.1: Overview of property attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Property group	The grouping of properties with similar characteristics.	Mandatory	5.2.5
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Optional	5.2.14
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	5.2.10
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	5.2.15
Steward contact details	The details of at least one contact person for the steward organisation.	Optional	5.2.16

5.2 Attributes requiring developer or registrar action

Attributes in the property template requiring action by a developer or registrar are described below.

5.2.1 Name

A single or multi-word designation assigned to the property.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users

Rules:	1. The name of the object class should not be embedded within the property name. 2. For circumstances where the property name is required to reflect the categorical nature of the characteristics or object in question, the name should include the term: • 'mode' or 'method' if the property represents a method by which a process is undertaken (e.g., admission mode or birth method) • 'status' if the property represents the current state of the characteristic or object in question (e.g., identifier status) • 'type' or 'category' if the property represents general characteristics of an object (e.g., labour onset type or practice modification category). 3. A representation class name (e.g., time) is not a valid property name. For example, 'Admission time' is acceptable over the more generic property 'Time' because of the need to define which 'time' is being described. 4. The following common rules for metadata also apply. The name must: • be unique • reflect the concept being defined • be stated in the singular • avoid the use of words that imply a preselected single instance • be concise as possible 5. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name, for proper nouns, or when necessary for an acceptable abbreviation (see rule 6. below). 6. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations. 7. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 8. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. The following are not permitted: • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'ear, nose and throat')) • full stops • parentheses or square brackets • quotation marks

5.2.2 Synonymous name(s)

One or more synonyms for the property name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for property may include: Clinical intervention; Operation; Surgery 4. End the list of synonymous names without a full stop.

5.2.3 Definition

A concise statement that expresses the essential nature of the property and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Define the property independently of when and how it is to be collected, and how it is to be represented. For example, 'Number of cigarettes smoked' is preferred over 'Number of cigarettes smoked per day'. The following common rules for metadata also apply: 2. The definition should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without repeating the name of the metadata item, embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 3. Do not repeat the name of the metadata item at the start of the definition. 4. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 5. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 6. If there is a need to define a term within the definition, a glossary item may be used. 7. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.
Notes	1. If the property name begins with the words 'Number of ...', begin the definition with the words 'A count of ...' 2. If the property name is a flag of something (e.g., 'Initial contact flag'), begin the definition with the words 'A flag of whether ...' 3. (NB. Properties which describe an essentially binary choice of this type formerly contained the word 'indicator.' As this usage may be confused with the metadata element type indicator, this usage is now deprecated, and the word 'flag' is preferred.) 4. See chapter 11 'Glossary item business rules' if a new glossary item needs to be created.

5.2.4 Context

A designation and/or description of the application environment or discipline in which the property definition has meaning.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. State or describe the application environment or discipline in which the property has meaning, (e.g., Palliative care) 2. Do not include the justification or reasoning for the property.
Notes	1. The context defines the setting within which the subject data has meaning 2. The context attribute should be left blank if a metadata item is applicable in all contexts, or the context is implied by the metadata item name or definition 3. See also section 2.6.3.

5.2.5 Property group

The grouping of properties with similar characteristics.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. A property can only be assigned to one property group. 2. To assign a property group: • Click the Choose button, this will bring up the property group browser • Select the appropriate property group either with Item ID or from an alphabetical list of groups • Click the Add button, selected property group will be visible in the template. • Click on Clear to remove the group. If the appropriate property group does not exist, create a new one by clicking the Create button. This will bring a drop-down menu of content types. Choose 'property group'.
Notes	Only a registrar can assign a property group. This is assigned when the property reaches a registration status of *Candidate*.

5.2.6 Guide for use

Advice or instructions for the interpretation or application of the property.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Describe how the metadata item is intended to be interpreted or applied.
Notes	Guide for use information is generally more applicable at the data element level where it provides information about how to use a data standard.

5.2.7 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Outline any collection guidelines for the metadata item (e.g., recommended data collection instruments).
Notes	Collection methods information is generally more applicable at the data element level where it provides information about how data are to be captured.

5.2.8 Comments

Any additional information that adds to the understanding of the property.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

5.2.9 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

5.2.10 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	All users
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

5.2.11 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'Origin' attribute are not included in the 'References' attribute and vice versa.

5.2.12 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

5.2.13 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR. For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

5.2.14 Unresolved issues

Comments which highlight issues for data committees or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

5.2.15 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	1. must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

5.2.16 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

Property group business rules

6.1 Introduction

When a property reaches a registration status of *Candidate*, it should be assigned to a property group. Property groups gather together all properties which describe similar characteristics. This helps the task of navigating the large number of properties in METEOR easier. For example, the property group, Physical characteristics includes properties such as Blood pressure, Height, Influenza immunisation indicator, Tattoo indicator and Weight.

Table 6.1.1.1: Overview of property group attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the property group.	Mandatory	6.2.1
Description	A concise statement that expresses the essential nature of the property group and its differentiation from other property groups.	Mandatory	6.2.2

6.2 Attributes requiring registrar action

Attributes in the property group template requiring action by a registrar are described below.

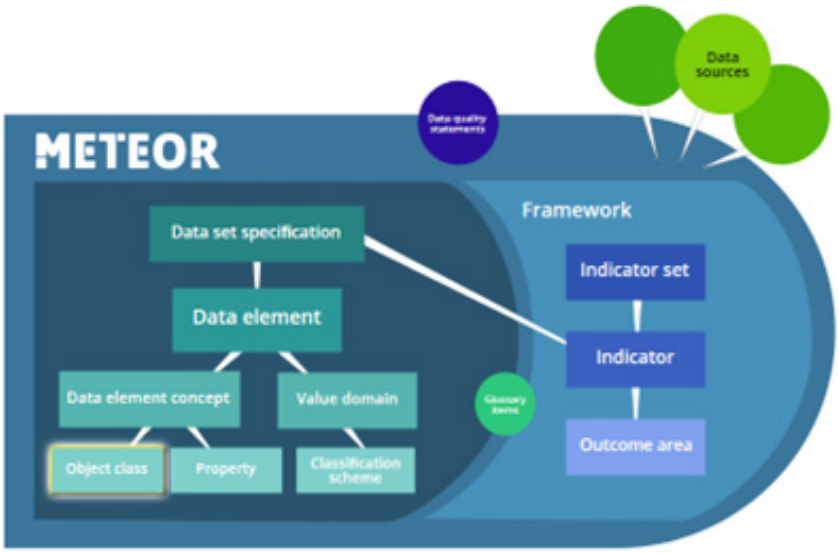
6.2.1 Name

A single or multi-word designation assigned to the property group.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	1. The name of the property group should not be embedded within the property group name. 2. For circumstances where the property group name is required to reflect the categorical nature of the characteristics or object in question, the name should include the term: • 'mode' or 'method' if the property represents a method by which a process is undertaken (e.g., admission mode or birth method) • 'status' if the property represents the current state of the characteristic or object in question (e.g., identifier status) • 'type' or 'category' if the property represents general characteristics of an object (e.g., labour onset type or practice modification category). 3. A representation class name (e.g., Time) is not a valid property name. For example, 'Admission time' is acceptable over the more generic property 'Time' because of the need to define which 'time' is being described. The following common rules for metadata also apply: 4. The name must: • be unique • reflect the concept being defined • be stated in the singular • avoid the use of words that imply a preselected single instance • be concise as possible. 5. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name, for proper nouns, or when necessary for an acceptable abbreviation (see rule 6. below). 6. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations. 7. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 8. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 9. The following are not permitted: • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'ear, nose and throat')) • full stops • parentheses or square brackets • quotation marks

6.2.2 Description

A concise statement that expresses the essential nature of the property group and its differentiation from other property groups.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. Describe the property group's characteristics. For example, 'Physical characteristics: This property group relates to the physical dimensions or age of an entity (i.e. age, body height, hip circumference)' The following common rules for metadata also apply. The definition should be concise and expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 2. Do not repeat the name of the metadata item at the start of the definition. 3. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 4. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 5. If there is a need to define a term within the definition, a glossary item may be used. 6. The description may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.

7 Data element concept business rules



7.1 Introduction

A ‘data element concept’, commonly referred to as a ‘DEC’, represents a concept created by the union of one object class and one property. For example, the data element concept ‘Person—date of birth’ is created by the union of the object class ‘Person’ and the property ‘Date of birth’.

As a data element concept is a concept that is described independently of any representational values, it can be thought of as a data element minus a value domain. An individual data element concept may be associated with various value domains resulting in a different data element for each association.

Remember the ‘create once, use often’ principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

7.1.1 For developers: Overview of data element concept attributes

Table 7.1.1.1 below provides an overview of the attributes requiring action by a developer when a data element concept is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 7.1.1.1: Overview of data element concept attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the data element concept.	Mandatory	7.2.1
Synonymous name(s)	One or more synonyms for the metadata item name within the context of the given item.	Optional	7.2.2.
Definition	A concise statement that expresses the essential nature of the data element concept and its differentiation from other metadata items.	Mandatory	7.2.3
Context	A designation and/or description of the application environment or discipline in which the property definition has meaning.	Optional	7.2.4
Object class	The object class implemented in this data element concept.	Mandatory (before 'Incomplete' registration status)	7.2.5
Property	The property implemented in this data element concept.	Mandatory (before 'Incomplete' registration status)	7.2.6
Guide for use	Advice or instructions for the interpretation or application of the data element concept.	Optional	7.2.7
Collection methods	Advice or instructions for the actual capture of data.	Optional	7.2.8
Comments	Any additional information that adds to the understanding of the data element concept.	Optional	7.2.9
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	7.2.10
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Completed by registrar.	7.2.11
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	7.2.12
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	5.2.13
Relationship type	An indicator for relationships between metadata items	Mandatory	7.2.14
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Completed by registrar.	7.2.15

Attribute	Definition	Obligation to complete	Section in this Chapter
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Completed by registrar.	7.2.16
Steward contact details	The details of at least one contact person for each listed steward organisation	Completed by registrar.	7.2.17

7.1.2 For registrars: Overview of data element concept attributes requiring action

Table 7.1.2.1 below provides an overview of the attributes requiring action by a registrar when a data element concept is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 7.1.2.1: Overview of data element concept attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	7.2.11
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Optional	7.2.15
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	7.2.16
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	7.2.17

7.2 Attributes requiring developer or registrar action

Attributes in the data element concept template requiring action by a developer or registrar are described below.

7.2.1 Name

A single or multi-word designation assigned to the data element concept.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Data element concept name components and arrangement:	[Object class name]+em dash+[property name] Example: Person—date of birth See note 1. For information on the 'Suggest' name function

Rules:	1. The object class and property name components of the data element concept name are to be written in full exactly as they are. The first letter of the property name should be changed to lower case (unless it is a proper noun). 2. An em dash '—' must separate the object class name and property name components without any spaces before or after the em dash, for example, 'Informal carer—financial assistance type'. (A quick way to insert an em dash is to use the keyboard shortcut: Alt + 0151. Alternatively, use the 'Suggest' name function). 3. Repetitive text in either the object class or property name components must not be removed. For example, a data element concept name consisting of the object class name 'Address' and the property name, 'Address currency status' is 'Address—address currency status'. The following common rules for metadata also apply: 4. The name must: • be unique • reflect the concept being defined • be stated in the singular • avoid the use of words that imply a preselected single instance • be concise as possible. 5. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the data element concept name, for proper nouns, or when necessary for an acceptable abbreviation or acronym (see rule 6. below). 6. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations 7. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 8. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 9. The following are not permitted: • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'ear, nose and throat')) • full stops • parentheses or square brackets • quotation marks
Notes	1. A Suggest button appears in the data element concept template alongside the 'name' attribute. Once the 'object class' and 'property' components have been implemented in the data element concept, the Suggest button can be used to combine their names in order to create the data element concept name. An em dash is automatically placed between the 'object class' name and 'property name' components.

7.2.2 Synonymous name(s)

One or more synonyms for the property name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for property may include: Clinical intervention; Operation; Surgery 4. End the list of synonymous names without a full stop.

7.2.3 Definition

A concise statement that expresses the essential nature of the data element concept and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The definition must reflect the data element concept's components (i.e. the object class and property). The following common rules for metadata also apply. 2. The definition should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 3. Do not repeat the name of the metadata item at the start of the definition. 4. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 5. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 6. If there is a need to define a term within the definition, a glossary item may be used. 7. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.
Notes	1. In general, a data element concept's definition will mirror that of the property that is implemented, but will include the name of the object class. 2. See chapter 11 'Glossary item business rules' if a new glossary item needs to be created.

7.2.4 Context

A designation and/or description of the application environment or discipline in which the property definition has meaning.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. State or describe the application environment or discipline in which the data element concept has meaning, (e.g., Palliative care). 2. Do not include the justification or reasoning for the object class.
Notes	1. The context defines the setting within which the subject data has meaning. 2. The context attribute should be left blank if a metadata item is applicable in all contexts, or the context is implied by the metadata item name or definition. 3. See also section 2.6.3

7.2.5 Object class

The object class implemented in this data element concept.	
Obligation to complete:	Mandatory (before *Incomplete* registration status)
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one object class may be selected. 2. An object class must be selected before a data element concept will be considered by a registrar. 3. For data element concepts that describe people or patients with a specific condition (e.g., acute coronary syndrome, cancer, or diabetes), the object class name should begin with the term 'Person with' (e.g., 'Person with diabetes'). 4. For data element concepts which describe interventions such as medication or treatment undertaken, select the object class 'Person' when that intervention occurred outside of an event (e.g., for medication regularly taken at home), and select an event object class when that intervention occurred within an event (e.g., for medication prescribed by an ambulance officer within an acute coronary syndrome episode).
Notes	1. If there is any doubt as to the most appropriate object class for a data element concept (e.g., 'Person' versus 'Patient'), select the broader, more generalised object class.

7.2.6 Property

The property implemented in this data element concept.	
Obligation to complete:	Mandatory (before *Incomplete* registration status)
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one property may be selected. 2. A property must be selected before a data element concept will be considered by a registrar.

7.2.7 Guide for use

Advice or instructions for the interpretation or application of the data element concept.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe how the metadata item is intended to be interpreted or applied.
Notes:	Guide for use information is generally more applicable at the data element level where it provides information about how to use a data standard.

7.2.8 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Outline any collection guidelines for the metadata item (e.g., recommended data collection instruments).
Notes:	Collection methods information is generally more applicable at the data element level where it provides information about how data are to be captured.

7.2.9 Comments

Any additional information that adds to the understanding of the data element concept.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

7.2.10 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to Standard when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

7.2.11 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	All users
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

7.2.12 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).

7.2.13 Reference documents

Significant publication(s) and/or website(s) that contributed to the development of the metadata item which are not a direct source of metadata content	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

7.2.14 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

7.2.15 Unresolved issues

Comments which highlight issues for data committees or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

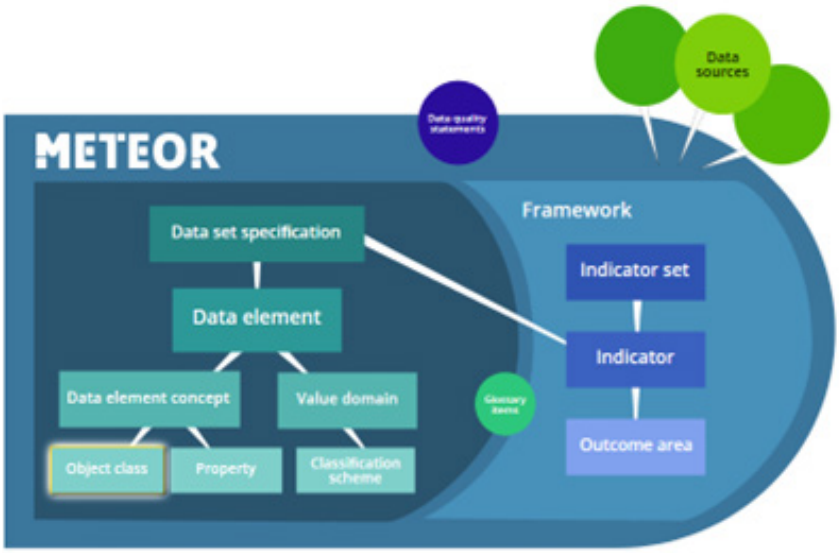
7.2.16 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

7.2.17 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

8 Value domain business rules



8.1 Introduction

A ‘value domain’, commonly referred to as a ‘VD’, represents an implied or explicit set of values used to represent the characteristic being measured or described. A value domain provides the permitted or valid values and representation for the concept defined by the data elements that implement it. A value domain is combined with a data element concept to create a data element.

A value domain may be either enumerated or expressed via a description:

An enumerated value domain contains a list of all its permitted or valid values (e.g., Code 1) and their associated value meanings (e.g., Lives alone), is referred to as a code set. Each value and meaning pair in the code set is a permissible value (e.g., Code 1 = Lives alone; Code 2 = Lives with others, and so on). The list of permissible values must be exhaustive and the values within it mutually exclusive with no overlapping conceptual meanings.

A described value domain specifies the valid values through a description rather than a list of all permissible values. It is commonly used when there is a range or continuum of valid values (e.g., height or weight measurements, and so on).

Determining how a data element is to be represented is a key consideration in developing a value domain as the representation describes the form of the data, including a value domain, data type, representation class, format and, if necessary, the unit of measure. When developing a new value domain, it is also important to ensure it is consistent and mappable to any relevant national or international data standards, where these exist.

See also section 2.5 ‘Value domain principles overview — permissible and supplementary values’

Remember the ‘create once, use often’ principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

8.1.1 For developers: Overview of value domain attributes

Table 8.1.1.1 below provides an overview of the attributes requiring action by a developer when a value domain is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 8.1.1.1: Overview of value domain attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the value domain.	Mandatory	8.2.1
Synonymous name(s)	One or more synonyms for the value domain name within the context of the metadata item.	Optional	8.2.2
Definition	A concise statement that expresses the essential nature of the value domain and its differentiation from other metadata items.	Mandatory	8.2.3
Context	A designation and/or description of the application environment or discipline in which the value domain has meaning.	Optional	8.2.4
Classification scheme	The name of the classification scheme which is implemented in this value domain.	Conditional: Complete if the value domain is of the representation class 'Code' and implements an entire classification scheme, or a complete chapter within a classification scheme.	8.2.5
Representation class	The class of representation reflecting the main structure of the value domain (e.g., 'Code' or 'Total').	Mandatory	8.2.6
Data type	The sort of values that may be recorded by the value domain, especially in regards to the types of operation that may be performed on them. Examples are 'currency', 'number' or 'string.'	Mandatory	8.2.7
Format	A template for the presentation of values, including specification and layout of permitted characters, the maximum and minimum size, and precision.	Mandatory	8.2.8
Maximum length	The maximum number of characters permitted to represent the values.	Mandatory	8.2.9

Attribute	Definition	Obligation to complete	Section in this Chapter
Permissible values	A list of codes and code descriptions representing values specified on the primary data collection tool.	Conditional: Complete if the value domain is of the representation class 'Code' and is not associated with a classification scheme (i.e. the value domain does not implement a classification scheme either in its entirety or a complete chapter within a classification scheme).	8.2.10
Supplementary values	A list of codes and code descriptions, falling outside of the value domain definition, representing missing information.	Optional	8.2.11
Unit of measure	The actual units in which permissible values are measured.	Conditional: Complete if the value domain is of the representation class 'Average' or 'Total'.	8.2.12
Unit of measure precision	The number of decimal places in which a unit of measure is measured.	Conditional: Complete if the value domain has a unit of measure with a decimal place.	8.2.13
Proposed unit of measure	A unit of measure that currently does not exist within METEOR but is required to develop the current value domain.	Conditional: Complete for value domains that require a unit of measure that is not currently used in METEOR	8.2.14
Guide for use	Advice or instructions for the interpretation or application of the value domain.	Optional	8.2.15
Collection methods	Advice or instructions for the actual capture of data.	Optional	8.2.16
Comments	Any additional information that adds to the understanding of the value domain.		
	Optional	8.2.17	
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	8.2.18
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Completed by Registrar.	8.2.19

Attribute	Definition	Obligation to complete	Section in this Chapter
Origin	Any publication(s) (including classification schemes when partially implemented by a value domain), website(s), organisation(s) and/or committee(s) from which any content of the value domain originates.	Conditional: Complete for metadata items based on the content outside of METEOR, including classification schemes when partially implemented by a value domain.	8.2.20
Reference documents	Significant publication(s) (including classification scheme supporting documents) and/or website(s) used in the development of the value domain which are not a direct source of metadata content.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	8.2.21
Relationship type	An indicator for relationships between metadata items	Mandatory	8.2.22
Unresolved issues	Comments which highlight issues for data committee or registrar consideration	Completed by Registrar.	8.2.23
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	8.2.24
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	8.2.25

8.1.2 For registrars: Overview of value domain attributes

Table 8.1.2.1 below provides an overview of the attributes requiring action by a registrar when a value domain is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 8.1.2.1: Overview of value domain attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	8.2.19
Unresolved issues	Comments which highlight issues for data committee or registrar consideration	Optional	8.2.23
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	8.2.24
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	8.2.25

8.2 Attributes requiring developer or registrar action

Attributes in the value domain template requiring action by a developer or registrar are described below.

8.2.1 Name

A single or multi-word designation assigned to the value domain.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Value domain name components and arrangement:	[Value title]+space+[representation class term]+space+[(Classification scheme term) if applicable]+space+[(unit of measure term) if applicable]+space+[Format term] Example 1: Assistance to quit smoking code N Example 2: Diagnosis code (ICD-10-AM Twelfth edition) ANN{.N[N]} Example 3: Total hours N(7)

A single or multi-word designation assigned to the value domain.	
Rules:	1. In the value domain name: • Express the value title component in a concise manner • The representational class term must be in lower case and reflect the value stored in the representational class attribute of the value domain (e.g., 'code', 'date', or 'time') • The classification scheme term, if applicable, must reflect the classification scheme synonymous name (e.g., 'ICD-10-AM Twelfth edition'), rather than the full name of the classification scheme • The unit of measure term, if applicable, must reflect the unit of measure attribute (e.g. hours, millimetres, etc. • The format term must reflect the value stored in the format attribute (e.g., 'N', 'N[N]', 'NX[X(11)]') • Parentheses should only be used to enclose the classification scheme term and within the format term • Full stops should only be used within the format term • Square and curly brackets (braces) should only be used within the format term. 2. If any term in the value domain name is made redundant either explicitly through the duplication of a word, or implicitly through another word or phrase, delete one occurrence of the word. The following common rules for metadata also apply: 3. The name must: • be unique • reflect the concept being defined • be stated in the singular, unless the concept is plural in nature (e.g., the value domain 'Average number of beds N[N(7).N]') • avoid the use of words that imply a preselected single instance • be concise as possible. 4. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the value domain name, for proper nouns, within the classification scheme and/or format terms, or when necessary for an acceptable abbreviation (see rule 5. below). 5. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations. 6. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 7. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted') or when part of the classification scheme synonymous name (e.g., 'ICD-10-AM Twelfth edition'). Do not leave any spaces before or after the hyphen. 8. The following are not permitted: • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'ear, nose and throat')) • quotation marks

8.2.2 Synonymous name(s)

One or more synonyms for the value domain name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for property may include: Clinical intervention; Operation; Surgery 4. End the list of synonymous names without a full stop.

8.2.3 Definition

A concise statement that expresses the essential nature of the value domain and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The value domain definition should be based on the definition wording templates listed in Table 8.2.2.1. 2. The value domain definition may be plural as it encompasses all permissible values for the domain. For example, the definition 'A numeric value representing an arithmetic mean of beds'. The following common rules for metadata also apply: 3. The definition should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 4. Do not repeat the name of the metadata item at the start of the definition. 5. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 6. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 7. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.

Table 8.2.2.1: Wording templates for constructing a value domain definition

If representation class is ...	Value domain definition wording is ...
Average	The arithmetic mean of ...
Code (not based on a classification scheme)	A code set representing ...
Code (based on a classification scheme)	The (insert the short classification scheme name) code set representing ...
Date	A valid day of a particular month and year under the Gregorian calendar.
Identifier	A unique combination of (insert numeric, alphabetic and/or alphanumeric) characters that identify an entity.
Ratio	A relative measure of ....
Text	A combination of (insert alphabetic and/or alphanumeric) characters.
Time	An instance in time represented in a (insert either 24-hour or 12-hour) scale.
Total	Total number of (insert the unit of measure written in plural) or Total concentration in (insert the unit of measure written in plural).

8.2.4 Context

A designation and/or description of the application environment or discipline in which the value domain definition has meaning.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. State or describe the application environment or discipline in which the value domain has meaning, (e.g., palliative care). 2. Do not include the justification or reasoning for the value domain.
Notes	1. The context defines the setting within which the subject data has meaning. 2. The context attribute should be left blank if a metadata item is applicable in all contexts, or the context is implied by the metadata item name or definition. 3. See also section 2.6.3

8.2.5 Classification scheme

The name of the classification scheme which is implemented in this value domain.	
Obligation to complete:	Conditional: Complete if the value domain is of the representation class 'code' and implements an entire classification scheme, or a complete chapter within a classification scheme.
Completed by:	Developer
Visibility:	All users
Rules:	4. Only one classification scheme may be selected.
Notes	1. Leave this attribute blank if the representation class is 'Code' and an incomplete set of values from a classification scheme is implemented by the value domain (e.g., only part of a chapter within a classification scheme is implemented), or no classification scheme is associated with the value domain. In these cases, the 'permissible values' attribute is completed (and a See also reference to the classification scheme may be added). 2. If the required classification scheme does not exist in METEOR, a new classification scheme may need to be created (see chapter 10 'Classification scheme business rules').

8.2.6 Representation class

The class of representation reflecting the main structure of the value domain (e.g., 'code' or 'total').	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one representation class may be selected. 2. The representation class must reflect the main structure of the value domain, not any supplementary value(s). For example, the representation class for a value domain with a measured value, such as 5 centimetres, and a supplementary value of code 99 (for 'Not stated/inadequately described') is 'total', not 'code'.
Notes	1. For a list of the representational class values and their associated meaning, see Table G1: 'Value domain representation class values and their associated meaning' in Appendix G 'Value representation tables'. 2. A value domain that is of representation class 'ratio' consists of measures of at least two distinct concepts, each of which may be collected in its own right. For example, body mass index is calculated from measures of a person's body weight and height. In contrast, a value domain that is of representation class 'total' is either an absolute count of something, reported in one or more units (e.g., Australian currency), or one measure, expressed as a proportionate quantity (e.g., milligrams per litre). Sub-type classes of the representation class 'total' are available for optional use (i.e. 'count', 'currency' and 'quantity').

8.2.7 Data type

The sort of values that may be recorded by the value domain, especially in regards to the types of operation that may be performed on them. Examples are 'currency', 'number' or 'string.'	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Only one data type may be selected. The data type must reflect the main structure of the value domain, not any supplementary value(s). For example, the data type for a value domain with 'yes/no' permissible values and a supplementary value of code 99 (for 'Not stated/inadequately described') is 'boolean', not 'number'. The data type must be appropriate for the representation class: • a value domain of representation class 'average' or 'total' must have a data type of 'currency' or 'number' • a value domain of representation class 'currency' must have a data type of 'currency' • a value domain of representation class 'count' or 'quantity' must have a data type of 'number' • a value domain of representation class 'percentage' or 'ratio' must have a data type of 'number' • a value domain of representation class 'boolean', 'code' or 'identifier' must have a data type of 'number' or 'string' • a value domain of representation class 'date' or 'time' must have a data type of 'date/time' • a value domain of representation class 'text' must have a data type of 'string'.
Notes	1. For a list of data types and their associated meaning, see Table G3 'Value domain data type values and their associated meaning' and Table G4 'Indicator data type values and their associated meaning' in Appendix G 'Value representation tables'. 2. For a list of the data type value options for each representation class, see Table G5 'Data type value options for each representation class value' in Appendix G 'Value representation tables'. 3. If the required data type does not exist in METEOR, a new data type may need to be created.

8.2.8 Format

A template for the presentation of values, including specification and layout of permitted characters, the maximum and minimum size, and precision. It is not a template for electronic data transmission or storage.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Specify the valid format value for the value domain. 2. Formatting characters such as decimal points, full stops, commas and hyphens are specified using symbolic representation. For example, a number with a precision of one is represented by the format 'N.N'. 3. Characters which are not enclosed in brackets signify a value which must be represented. 4. If a character is repeated more than 6 times in succession, round brackets and a number are to be used to indicate the number of repeats. For example, 'X(7)' not 'XXXXXXX'. 5. Position characters using a protocol reading from inner brackets (if any) to outer brackets, and left to right. For example, 'NNNNX[AA]' represents four numeric characters followed by one alphanumeric character, and up to two alphabetic characters (i.e. NNNNX, NNNNXA or NNNNXAA). 6. Express a sequence of characters of a given character type by ordering characters which must be represented to the left of characters that may or may not be represented. For example, 'NN[N]' not '[N]NN'.
Notes	1. Filling in this attribute is not mandatory until item progresses to the *Incomplete* registration status. 2. In order to progress a registration status further, this attribute must be filled in thereafter. 3. See Table G4 'Format values and their associated meaning' in Appendix G 'Value representation tables' for format values and valid character range. 4. See Table G5 'Examples of values to be represented and their associated format' in Appendix G 'Value representation tables' for format examples.

8.2.9 Maximum character length

The maximum number of characters permitted to represent the values.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Specify the maximum number of characters permitted. 2. For items that are of data type 'string', the maximum character length represents a count of all alphabetic, numeric and other ASCII (American Standard Code for Information Interchange) characters (including full stops, forward slash, back slash and hyphens). For example, the string 'YYYY-YY' contains a maximum of 7 characters. 3. For items that are of data type 'Number', the maximum character length represents a count of all numeric characters only (excluding characters such as plus, minus and decimal points). For example, the number '3.142' contains a maximum of 4 characters.
Notes	1. Filling in this attribute is not mandatory until item progresses to the *Incomplete* registration status. 2. The maximum character length is intended to be specified mainly for described value domains. If specified for enumerated value domains, take care to ensure that specified value is consistent with the enumerated permissible values.

8.2.10 Permissible values

A list of codes and code descriptions representing values specified on the primary data collection tool.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. List each permissible value on a new line within the left-most column, without the use of a semi-colon, comma or full stop. Include only the value, without the use of any descriptive wording (i.e. enter '1', not 'Code 1' or 'Level 1.') 2. Provide a concise label of the code value for each permissible value in the corresponding right-hand column 3. If a label expressly excludes or includes a specific value from a permissible value: • state name of that value in alphabetic characters within the label column • enclose this text within parentheses (e.g., 'Drowning, submersion – other than swimming pool (excludes drowning associated with water craft)'. To assign permissible values: 1. Click the Add item button. This will show two text fields in which the permissible values are entered. 2. In the text field located to the left of screen, enter the permissible value. 3. In the text field located on the right of screen, enter the description of the permissible value. 4. To add another permissible value click the Add item button again and repeat steps 2 and 3. 5. Continue this process until all permissible values are recorded. 6. To remove any of the values added, click the Remove button located to the right of the description text field.

8.2.11 Supplementary values

A list of codes and code descriptions, falling outside of the value domain definition, representing missing information.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Supplementary values should not be used within the scope of the value domain definition. 2. List each supplementary value on a new row. To assign supplementary values: 1. Click the Add item button. This will show two text fields in which the supplementary values can be entered. 2. In the text field located to the left of screen, enter the supplementary value (e.g., the numeric character '99'). 3. In the text field located on the right of screen, enter the description of the supplementary value (e.g., 'Not stated/inadequately described'). 4. To add another supplementary value click the Add item button again and repeat steps 2 and 3. 5. Continue this process until all supplementary values are recorded. 6. To remove any of the values added, click the Remove button located to the right of the description text field.
Notes	See section 2.6.6 'Value domain principles – permissible and supplementary values' in Chapter 2 'Principles for the development of good data standards' for further information on supplementary values.

8.2.12 Unit of measure

The actual units in which permissible values are measured.	
Obligation to complete:	Conditional: Complete if the value domain is of the representation class 'average' or 'total'.
Completed by:	Developer
Visibility:	All users
Rules:	1. If the value domain is of representation class of 'average' or 'total', select a unit of measure using the drop-down-list. If no appropriate category exists, propose a new unit of measure using the proposed unit of measure attribute (see 8.2.14.). For value domains of representation class of 'date' or 'time', the unit of measure is indicated within the format only. 2. Only one unit of measure may be selected. For value domains which store a proportional quantity (e.g., milligram per litre) or a combination of units (e.g., hour and minute), state all units as the unit of measure (e.g., milligram per litre; hour and minute).
Notes	1. To progress to the *Incomplete* registration status, value domains of representation class of 'average' or 'total' must include either a. a unit of measure from the existing drop-down list or b. a proposed unit of measure 2. Adding a new unit of measure to the drop-down list (e.g., a unit of measure proposed by the developer) is the responsibility of the registrar. This must be actioned before the value domain may be made Standard 3. For a list of the units of measure, see Table G8 'Value domain units of measure classifications' in Appendix G 'Value representation tables'.

8.2.13 Unit of measure precision

The number of decimal places in which a unit of measure is measured.	
Obligation to complete:	Conditional: Complete if the value domain has a unit of measure with a decimal place.
Completed by:	Developer
Visibility:	All users
Rules:	Specify the number of decimal places permitted in numeric form. For example the precision for the unit of measure N.N is '1'.

8.2.14 Proposed unit of measure

The actual units in which permissible values are measured.	
Obligation to complete:	Conditional: Complete if the value domain is of the representation class 'average' or 'total', and the appropriate unit of measure is not included in the drop-down list.
Completed by:	Developer
Visibility:	All users
Rules:	1. State the full name of the unit of measure in singular form, followed by the unit of measure symbol (if one exists) enclosed in parentheses e.g., Gram (g) 2. Capitalise the first letter of the first word only, except when referring to proper nouns e.g., Degree Celsius. 3. A unit of measure symbol should be recognised by an International or Australian *Standard* e.g., ISO 1000, International Committee for Weights and Measures (CIPM), and National Measurement Amendment Act 2013 4. A unit of measure symbol must not symbolise more than one unit of measure within METEOR e.g., m refers to meter, not minute or month This rule does not apply to symbol prefixes (e.g., m also symbolises 0.001 of another unit) and when combined with the unit meter (m), will result in the valid symbol 'mm'.
Notes	1. To progress to the *Incomplete* registration status, value domains of representation class of 'average' or 'total' must include either a. a unit of measure from the existing drop-down list, or b. a proposed unit of measure 2. Adding a new unit of measure to the drop-down list (e.g. a unit of measure proposed by the developer) is the responsibility of the registrar. This must be actioned before the value domain may be made Standard 3. For a list of the units of measure, see Table G8: Value domain units of measure classifications in Appendix G 'Value representation tables'.

8.2.15 Guide for use

Advice or instructions for the interpretation or application of the value domain.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Describe any restrictions or advice as to how the value domain is to be interpreted or applied that are applicable to all data elements which that may implement the value domain. This may include instructions for rounding numeric values and coding guidelines. 2. When information about a value domain's permissible and supplementary code list is included under 'guide for use' it should be formatted consistently, and all code values included. For example, if one code value requires defining or explaining, then all code values should be listed, not just the one. The recommended format is for the definition/explanation to appear beneath the code value-meaning pair, as per the example below: CODE 1 Co-resident carer A co-resident carer is a person who provides care and assistance on a regular and sustained basis to a person who lives in the same household. CODE 2 Non-resident carer A non-resident or visiting carer is a person who provides care and assistance on a regular and sustained basis to someone who usually lives in a different household. CODE 9 Not stated/inadequately described. Use this code when the information is not stated or otherwise inadequately described (e.g., when a response has not been recorded.)
Notes	Keep in mind the usability and reusability of the value domain. If the guide for use information is specific to one instance of implementation and not applicable to the collection of all data elements that may implement the value domain, provide information instead at the data element or data set specification level, rather than at the value domain level.

8.2.16 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Outline any guidelines applicable to all data elements that may implement the value domain. This may include data collection formats, minimum data collection requirements, requirements for supporting material and how missing data is to be treated.
Notes	If data collection information is specific to one instance of the value domain's implementation (i.e. the information is not applicable to the collection of all data elements that may implement the value domain), the information should be included in the 'collection methods' attribute at the data element level (or data set specification level), rather than the value domain level.

8.2.17 Comments

Any additional information that adds to the understanding of the value domain.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

8.2.18 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose the edit item button to add the submitting organisation, in order to update registration status.

8.2.19 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	All users

Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

8.2.20 Origin

Any publication(s) (including classification schemes when partially implemented by a value domain), website(s), organisation(s) and/or committee(s) from which any content of the value domain originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR, including classification schemes when partially implemented by a value domain.
Completed by:	Developer
Rules:	1. List the full name of any classification scheme which is partially implemented by the value domain (i.e. when a value domain does not implement all codes listed in a chapter of a classification, or all codes within the classification). 2. When citing a classification scheme, use the short title for the in-text citation (e.g., ICD-10-AM Twelfth Edition). The following common rules for metadata also apply: 3. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 4. List the full reference for any in-text references cited in the body of that metadata item. 5. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'reference documents' attribute and vice versa.

8.2.21 Reference documents

Significant publication(s) (including classification scheme supporting documents) and/or website(s) that contributed to the development of the value domain.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. List any support documents for a classification scheme partially implemented by the value domain (e.g., user guides). 2. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference documents' attribute are not included in the 'origin' attribute and vice versa.

8.2.22 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window • The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

8.2.23 Unresolved issues

Comments which highlight issues for data committees or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

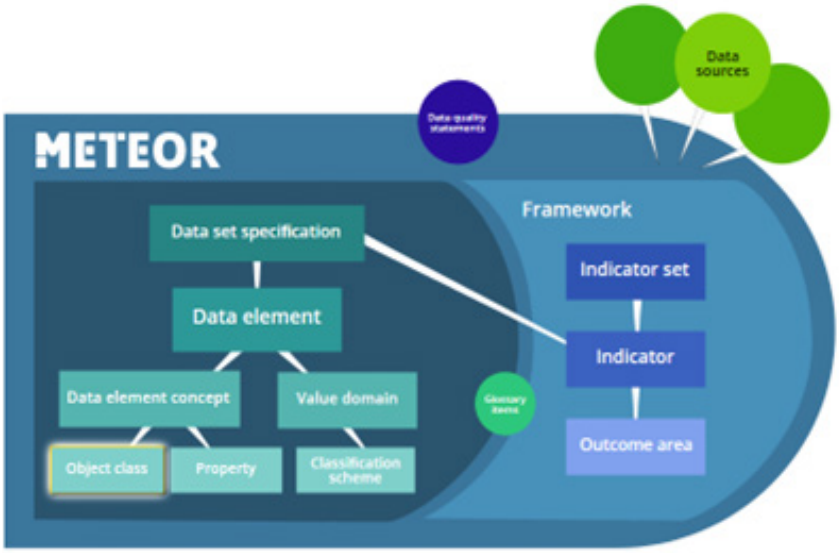
8.2.24 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

8.2.25 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

9 Data element business rules



9.1 Introduction

A ‘data element’, commonly referred to as a ‘DE’, is the basic unit of identifiable and definable data information in METEOR, and is used to standardise the representation of data.

A data element is created by combining a data element concept and a value domain — that is, the concept and its representation. While the meaning of a data element is essentially captured within the data element concept component, the value domain component specifies its representation, e.g. its permissible values and format. An individual data element concept may be combined with different value domains, to create a number of data elements.

Remember the ‘create once, use often’ principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

9.1.1 For developers: Overview of data element attributes

Table 9.1.1.1 below provides an overview of the attributes requiring action by a developer when a data element is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 9.1.1.1: Overview of data element attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Synonymous name(s)	One or more synonyms for the metadata item name within the context of the given item.	Optional	9.2.3
Definition	A concise statement that expresses the essential nature of the data element and its differentiation from other metadata items.	Mandatory	9.2.4
Context	A designation and/or description of the application environment or discipline in which the data element has meaning.	Optional	9.2.5
Data element concept	The data element concept implemented in this data element.	Mandatory (before 'incomplete' registration status)	
9.2.6			
Value domain	The value domain implemented in this data element.	Mandatory (before 'incomplete' registration status)	
9.2.7			
Guide for use	Comments, advice, or instructions for the interpretation or application of the metadata item.	Optional	9.2.8
Collection methods	Comments, advice, or instructions for the actual capture of data.	Optional	9.2.9
Comments	Any additional information that adds to the understanding of the data element.	Optional	9.2.10
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	9.2.11
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	9.2.12
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	9.2.13

Attribute	Definition	Obligation to complete	Section in this Chapter
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	9.2.14
Relationship type	An indicator for relationships between metadata items	Mandatory	9.2.15
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Completed by registrar	9.2.16
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Completed by registrar	9.2.17
Steward contact details	The details of at least one contact person for the Steward organisation.	Completed by registrar	9.2.18

9.1.2 For registrars: Overview of data element attributes

Table 9.1.2.1 below provides an overview of the attributes requiring action by a registrar when a data element is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 9.1.2.1: Overview of data element attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the value domain.	Mandatory	8.2.1
Synonymous name(s)	One or more synonyms for the value domain name within the context of the metadata item.	Optional	8.2.2
Definition	A concise statement that expresses the essential nature of the value domain and its differentiation from other metadata items.	Mandatory	8.2.3
Context	A designation and/or description of the application environment or discipline in which the value domain has meaning.	Optional	8.2.4

9.2 Attributes requiring developer or registrar action

Attributes in the data element template requiring action by a developer or registrar are described below.

9.2.1 Name

A single or multi-word designation assigned to the data element.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users

A single or multi-word designation assigned to the data element.	
Rules:	1. A data element name must begin with a capital letter. The use of capital letters is only permitted at: • the beginning of the name • for proper nouns • within the value domain name component (such as the format term), but not at the beginning of the value domain name which must be lower case • when necessary for an acceptable abbreviation or acronym (see rule 8 below). 2. A comma must only be used to separate the data element concept name component from the value domain name component (e.g., 'Person—body height, total centimetres NN[N].N'), or where a comma has been used to separate two or more terms in a name (e.g., the term 'ear, nose and throat'). 3. Full stops should only be used within the format term component of the value domain name (e.g., 'Episode of admitted patient care—clinical assessment tool used, code N.N'). 4. Parentheses should only be used to enclose the format term and classification scheme components of the value domain name (e.g., 'Person—country of birth, code (SACC 2016) NNNN'). 5. Square and curly brackets (braces) should only be used within the format term component of the value domain name (e.g., 'Episode of care—additional diagnosis, code (ICD-10-AM Twelfth edition) ANN{.N[N]}'). 6. If any word (apart from the representation class in the value domain name) in the union of the data element concept name and value domain name becomes redundant, either explicitly through the duplication of a word, or implicitly through another word or phrase, delete the redundant part within the value domain name component. For example, the union of the data element concept 'Person—sex' and the value domain 'Sex code N' is 'Person—sex, code N', not 'Person—sex, sex code N'. In this example the word 'sex' in the value domain name is redundant as it appears as part of the data element concept name. For data elements of all representation classes other than 'date' and 'time', the representation class term component of the value domain name must not be deleted. For example, the union of the data element concept 'Address—electronic communication usage code' and the value domain 'Electronic communication usage type code N' is 'Address—electronic communication usage code, code N', not 'Address—electronic communication usage code, N'. For the representation classes 'date' and 'time', if the representation class term is duplicated in the data element name, the duplicate term becomes redundant and must be deleted. For example, the union of the data element concept 'Address—address start date' and the value domain 'Date DDMMYYYY' is 'Address—address start date, DDMMYYYY', not 'Address—address start date, date DDMMYYYY' The following common rules for metadata also apply: 7. The name must: • be unique • reflect the concept being defined • be stated in the singular • avoid the use of words that imply a preselected single instance • be concise as possible. 8. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations. 9. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 10. Hyphens are permitted only when used in a compound word (e.g., non-admitted) or when part of the classification scheme term in the value domain component of a data element (e.g., 'Episode of care—additional diagnosis, code (ICD-10-AM Twelfth edition) ANN{.N[N]}'). Do not leave any spaces before or after the hyphen. 11. The following are not permitted: • colons • quotation marks

A single or multi-word designation assigned to the data element.	
Notes	1. A Suggest button appears in the data element template alongside the 'name' attribute. Use this button to bring together the data element concept name and value domain name components to create the data element name. An em dash is automatically placed between the data element concept name and value domain name. (A quick way to insert an em dash is to use the keyboard shortcut: Alt + 0151)

9.2.2 Short name

A short or common name or designation by which the data element is known and might be identified.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The short name must be a single unique name by which a data element can be identified. For example, the short name for the data element 'Person—country of birth, code (SACC 2016) NNNN' is 'Country of birth. 2. To ensure uniqueness, the short name may be qualified to distinguish the data element from other similar data elements (e.g., the data element's 'Adult—body mass index self-reported, ratio NN[N].N[N' and 'Child—body mass index self-reported, ratio NN[N].N[N]'). In this example, the short name 'Body mass index' is not unique for both data elements so a qualifier, such as 'Body mass index-adult (self-reported)' and may be used to 'Body mass index-child (self-reported) may need to be used respectively to distinguish the two data elements.

9.2.3 Synonymous name(s)

One or more synonyms for the data element name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for property may include: Clinical intervention; Operation; Surgery 4. End the list of synonymous names without a full stop.
Notes	This attribute is only visible to registrars.

9.2.4 Definition

A concise statement that expresses the essential nature of the data element and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. A data element definition must make reference to its specific representation and begin or end by stating the representation class for the data element and its value domain; for example, 'The type of organisation responsible for the management of a dwelling tenancy, as represented by a code'. The definite article 'the' is generally used for the definition as it refers to one instance of a data item. See Table 9.2.4.1 Examples of recommended wording for data element definitions. The following common rules for metadata also apply: 2. The definition should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 3. Do not repeat the name of the metadata item at the start of the definition. 4. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 5. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 6. If there is a need to define a term within the definition, a glossary item may be used. 7. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.
Notes	1. See chapter 11 'Glossary item business rules' if a new glossary item needs to be created.

Table 9.2.4.1: Examples of recommended wording for data element definitions

Value	Definition begins or ends with …
Binary/indicator (e.g., yes/no response)	'A flag of whether ….'
Code	'The code that represents….' OR '…, as represented by a code.'
Date	'…, expressed as DDMMYYYY.' (or however the date is represented).
Measure	'The measure of the (area, mass, distance)….'
Name	'The name of ….'
Number (but not total)	'The number assigned by ….' OR 'The number that represents ….' OR '…, as represented by a number.'
Quantity	'The (sum, amount, capacity) of….'
Total	'The total number of …,'
Text	'…, as represented by text.'

9.2.5 Context

A designation and/or description of the application environment or discipline in which the data element definition has meaning.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	2. State or describe the application environment or discipline in which the data element has meaning, (e.g., Palliative care). 3. Do not include the justification or reasoning for the data element.
Notes	1. The context defines the setting within which the subject data has meaning. 2. The context attribute should be left blank if a metadata item is applicable in all contexts, or the context is implied by the metadata item name or definition. 3. See also section 2.6.3

9.2.6 Data element concept

The data element concept implemented in this data element.	
Obligation to complete:	Mandatory (before *Incomplete* registration status).
Completed by:	Developer
Rules:	1. Only one data element concept may be selected. 2. A data element concept must be selected before the data element will be accepted by the registrar. To add a data element concept: • Click the Choose button. This will open a Data element concept browser window. • There will be three options to choose from: Item ID, A–Z listing or Data element concepts by property. • Choose your option, select your DEC and click the Add button. • Your selection will appear in the template. • To remove your selection, press the Cancel button.

9.2.7 Value domain

The value domain implemented in this data element.	
Obligation to complete:	Mandatory (before *Incomplete* registration status).
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one value domain may be selected. 2. A value domain must be selected before the data element will be accepted by the registrar. To add a value domain: • Click the Choose button. This will open a value domain browser window. • There are three options to choose from: Item ID, A–Z listing or Value domains by representation class/data type. • Choose your option, select your Value domain and click the Add button. • Your selection will appear in the template. • To remove your selection, press the Cancel button.
Notes	The value domain implemented in the data element defines how the data element concept is to be represented.

9.2.8 Guide for use

Advice or instructions for the interpretation or application of the data element.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Describe any restrictions as to how the data element is intended to be interpreted or applied which are specific to the union of the data element concept and the value domain. For example, describe how other data elements should be used in conjunction with the current data element, any formulae which guide calculations, or coding guidelines. 2. If information about the permissible and supplementary value code list has not been included in 'guide for use' at the value domain level, it may need to be included at the data element level. Consistent formatting should be used and all code values included. For example, if one code value requires defining or explaining, then all code values should be listed, not just the one. The recommended format is for the definition/explanation to appear beneath the code value-meaning pair, as shown in the example below: CODE 1 Co-resident carer A co-resident carer is a person who provides care and assistance on a regular and sustained basis to a person who lives in the same household. CODE 2 Non-resident carer A non-resident or visiting carer is a person who provides care and assistance on a regular and sustained basis to someone who usually lives in a different household. CODE 9 Not stated/inadequately described. Use this code when the information is not stated or otherwise inadequately described (e.g. when a response has not been recorded).
Notes	Guide for use information is generally more applicable at the data element level where it provides information about how to use a data standard.

9.2.9 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Outline any guidelines for the collection of the data element which are specific to the union of the data element concept and the value domain. For example, data collection formats, minimum data collection requirements, requirements for supporting material or how missing data are to be treated.

9.2.10 Comments

Any additional information that adds to the understanding of the data element.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

9.2.11 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

9.2.12 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

9.2.13 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

9.2.14 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

9.2.15 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users

Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR. For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

9.2.16 Unresolved issues

Comments which highlight issues for data committees or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

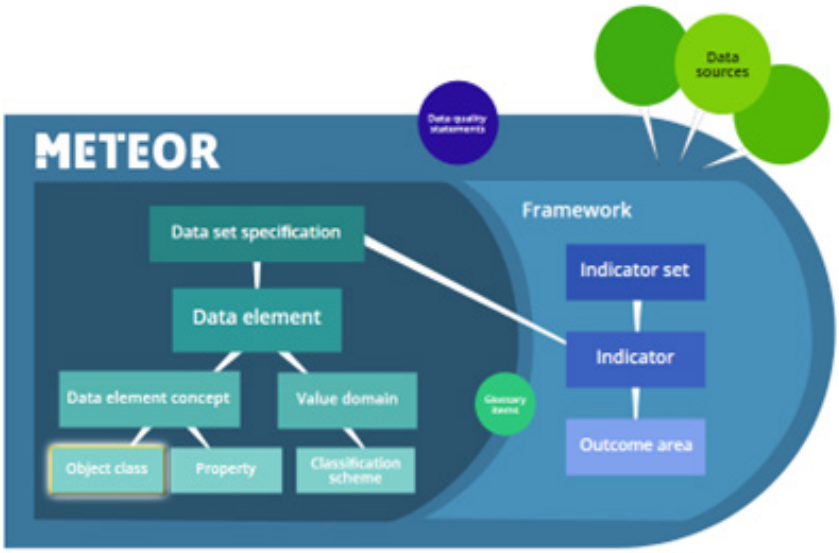
9.2.17 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

9.2.18 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

10 Classification scheme business rules



10.1 Introduction

A 'classification scheme' represents an official terminological system for classifying data that is recognised and endorsed by a national or international body.

A classification scheme contains descriptive information to arrange concepts into groups based on criteria such as the characteristics which they have in common. Types of classification schemes include controlled vocabularies, uncontrolled vocabularies, taxonomies, thesaurii, and ontologies. An example of a classification scheme is the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification, Twelfth edition.

In METEOR, a classification scheme may be implemented by one or more value domains. The classification scheme acts as a type of reference, pointing to where the user may find the list of permissible values for the value domain, without the need to enumerate them explicitly in the value domain.

Remember the 'create once, use often' principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

10.1.1 For developers: Overview of classification scheme attributes

Table 10.1.1.1 below provides an overview of the attributes requiring action by a developer when a classification scheme is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 10.1.1.1: Overview of classification scheme attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the classification scheme.	Mandatory	10.2.1
Synonymous name(s)	One or more synonyms for the classification scheme name within the context of the metadata item.	Optional	10.2.2
Definition	A concise statement that expresses the essential nature of the classification scheme and its differentiation from other metadata items.	Mandatory	10.2.3
Context	A designation and/or description of the application environment or discipline in which the classification scheme definition has meaning.	Optional	10.2.4
Classification structure	The underlying structure of a classification scheme such as the number and type of scales or axes within the classification.	Optional	10.2.5
Guide for use	Advice or instructions for the interpretation or application of the classification scheme.	Optional	10.2.6
Collection methods	Advice or instructions for the actual capture of data.	Optional	10.2.7
Comments	Any additional information that adds to the understanding of the classification scheme.	Optional	10.2.8
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	10.2.9
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	10.2.10
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	10.2.11
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.		
Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	10.2.12		

Attribute	Definition	Obligation to complete	Section in this Chapter
Revision status	The status of the classification scheme in terms of formal revisions.	Optional	10.2.13
Relationship type	An indicator for relationships between metadata items	Mandatory	10.2.14
Unresolved issues			
	Comments which highlight issues for data committee or registrar consideration.	Completed by registrar	10.2.15
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Completed by registrar	10.2.16
Steward contact details	The details of at least one contact person for the Steward organisation.	Completed by registrar	10.2.17

10.1.2 For registrars: Overview of classification scheme attributes

Table 10.1.2.1 below provides an overview of the attributes requiring action by a registrar when a classification scheme is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 10.1.2.1: Overview of classification scheme attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	10.2.10
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Optional	10.2.15
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	10.2.16
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	10.2.17

10.2 Attributes requiring developer or registrar action

Attributes in the classification scheme template requiring action by a developer or registrar are described below.

10.2.1 Name

A single or multi-word designation assigned to the classification scheme.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. State the full and formal name of the classification scheme, without beginning the name with the word 'The'. For example, 'Australian Refined Diagnosis Related Groups version 6'. 2. If the classification scheme has an edition or version number, insert the edition or version number and the suffix edition or version. For example, 'International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification, Twelfth edition.' 3. If the classification scheme is not associated with an edition or version number, insert the year of publication after the name. For example, 'Australian Standard Classification of Languages 2016'. 4. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 5. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 6. Do not include any of the following in the classification scheme name unless they are part of the official classification scheme title: • colons • quotation marks
Notes	Specifying the revision, edition or year of the classification, or year of publication, is important as it enables consistent and comparable data collection that would otherwise be left to assumptions being made about which version of the classification was or is used.

10.2.2 Synonymous name(s)

One or more synonyms for the classification scheme name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. State the abbreviated title of the classification scheme, including the version/ edition number (if any). For example, the synonymous name for the 'International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification Twelfth Edition' is 'ICD-10-AM Twelfth Edition.' 2. If the classification scheme has an edition or version number, abbreviate the term 'edition' with 'edn' (e.g., 'UICC TNM Classification of Malignant Tumours 8th edn'), and 'version' with 'v' (e.g., Tier 2 Non-Admitted Services Classification v7.0). 3. The latest edition of ICD-10-AM is spelled out, and not abbreviated (e.g., 'ICD-10-AM Twelfth Edition.') 4. If there is no version/edition number associated with the classification scheme, insert the year of publication after the name of the classification scheme. For example, the synonymous name for the 'Australian Standard Classification of Languages 2016' is 'ASCL 2016'. 5. If more than one synonymous name is included, separate each synonymous name with a semi-colon and space. 6. Do not include a full stop at the end of the synonymous names.

10.2.3 Definition

A concise statement that expresses the essential nature of the classification scheme and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Express the classification scheme definition using the following format: The (insert the formal name of the organisation) classification for the (insert the topic of the classification scheme). For example, 'The National Centre for Classification in Health classification of diseases and related health problems'. The following common rules for metadata also apply: 2. The definition should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 3. Do not repeat the name of the metadata item at the start of the definition. 4. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 5. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 6. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.

10.2.4 Context

A concise statement that expresses the essential nature of the classification scheme and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Express the classification scheme definition using the following format: The (insert the formal name of the organisation) classification for the (insert the topic of the classification scheme). For example, 'The National Centre for Classification in Health classification of diseases and related health problems'. The following common rules for metadata also apply: 2. The definition should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 3. Do not repeat the name of the metadata item at the start of the definition. 4. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 5. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 6. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.

10.2.5 Classification structure

The underlying structure of a classification scheme such as the number and type of scales or axes within the classification.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe the structure of the classification scheme with particular reference to levels of hierarchy, domains, axes or scales corresponding to particular topics or subject areas.

10.2.6 Guide for use

Advice or instructions for the interpretation or application of the classification scheme.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any restrictions as to how the classification scheme is to be applied that are applicable to the collection of all data elements using the classification scheme.

10.2.7 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Outline any guidelines applicable to the collection of all data elements that may implement that classification scheme through the relevant value domain(s). For example, suggested or mandatory indicators, data collection formats, minimum data collection requirements, requirements for supportive material, and or how missing or not stated data is to be treated.

10.2.8 Comments

Any additional information that adds to the understanding of the classification scheme.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any additional information which facilitates understanding of the classification scheme. For example, whether the classification scheme is likely to be reviewed in the near future, considerations for further development, potential terminology issues, and justification for the inclusion or exclusion of content.

10.2.9 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

10.2.10 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

10.2.11 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for all in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

10.2.12 Reference documents

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for all in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

10.2.13 Revision status

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe the edition or version of the classification referenced (e.g., 'The first edition of the ASCL was published in 1997. The ASCL was revised in 2005, 2011 and 2016'.).

10.2.14 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on valid relationship types and their associated meanings.

10.2.15 Unresolved issues

Comments which highlight issues for data committees or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

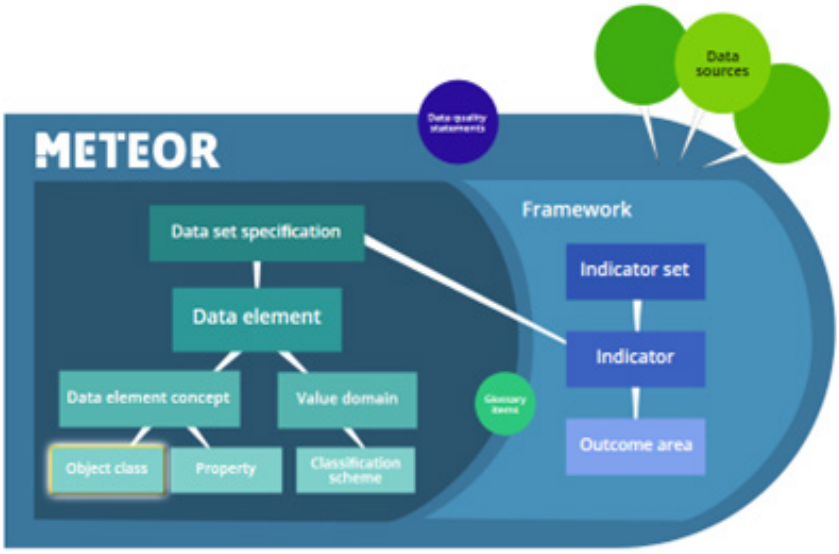
10.2.16 Submitting organisation contact details

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

10.2.17 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

11 Glossary item business rules



11.1 Introduction

A glossary item may be used to define the meaning of a term within a specific context.

A glossary item (e.g., to define the meaning of the term 'Adverse event') may be inserted into metadata items that uses the term (such as a data set specification, and the data elements within it.) The glossary item allows the term to be defined precisely and consistently within the context of these metadata items, without the need for the full definition to be repeated each time.

When a glossary item is used for a particular term, not every instance of the term should be linked to the glossary item. In general, only the first instance of the term that appears in a metadata element should be linked.

N.B. in METEOR, glossary items must be inserted into metadata elements using the 'metadata items' option under the METEOR drop-down menu of the WYSIWIG editor toolbar. This creates a 'mouseover' displaying the definition, and 'metadata items which use this glossary item' links. Glossary items should **not** be inserted as simple hyperlinks.

Remember the 'create once, use often' principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

11.1.1 For developers: Overview of glossary item attributes

Table 11.1.1.1 below provides an overview of the attributes requiring action by a developer when a glossary item is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 11.1.1.1: Overview of glossary item attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	The term being defined.	Mandatory	11.2.1
Synonymous name(s)	One or more synonyms for the glossary item name within the context of the metadata item.	Optional	11.2.2
Definition	A concise statement that expresses the essential nature of the glossary item and its differentiation from other metadata items.	Mandatory	11.2.3
Context	A designation and/or description of the application environment or discipline in which the glossary item definition has meaning.	Conditional: Complete if there is more than one glossary item with the same name.	11.2.4
Guide for use	Advice or instructions for the interpretation or application of the glossary item.	Optional	11.2.5
Collection methods	Advice or instructions for the actual capture of data.	Optional	11.2.6
Comments	Any additional information that adds to the understanding of the glossary item.	Optional	11.2.7
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	11.2.8
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Completed by Registrar	11.2.9
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	11.2.10
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	11.2.11
Relationship type	An indicator for relationships between metadata items	Mandatory	11.2.12
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Completed by Registrar	11.2.13

Attribute	Definition	Obligation to complete	Section in this Chapter
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Completed by Registrar	11.2.14
Steward contact details	The details of at least one contact person for the Steward organisation.	Completed by Registrar	11.2.15

11.1.2 For registrars: Overview of glossary item attributes

Table 11.1.2.1 below provides an overview of the attributes requiring action by a registrar when a glossary item is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 11.1.2.1: Overview of glossary item attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	11.2.9
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Optional	11.2.13
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	11.2.14
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	11.2.15

11.2 Attributes requiring developer or registrar action

Attributes in the glossary item template requiring action by a developer or registrar are described below.

11.2.1 Name

The term being defined.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Glossary specific rules:	1. The name must be concise and indicative of the content of the glossary item. 2. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name or for proper nouns. 3. Numbers in a term are expressed in a numeric rather than alphabetic form (e.g., 'Defined 12-month period'). 4. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 5. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 6. The following are not permitted: • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'Ear, nose and throat')) • full stops • parentheses or square brackets • quotation marks
Notes	There may be more than one glossary item with the same name if a particular term has different meanings in different contexts. In such cases, it is necessary for the 'context' attribute to clearly identify the context for each glossary item with the same name. For example, to differentiate between two glossary items with the name 'Admission', it would be necessary to add the contexts of 'Law', 'Admitted patient care', or 'Health' respectively.

11.2.2 Synonymous name(s)

One or more synonyms for the glossary item name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for property may include: Clinical intervention; Operation; Surgery 4. End the list of synonymous names without a full stop.

11.2.3 Definition

A concise statement that expresses the essential nature of the glossary item and its differentiation from other metadata items.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The definition should be expressed: • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 2. Do not repeat the name of the metadata item at the start of the definition. 3. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 4. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 5. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.
Notes	In cases where a term is used in a glossary item definition for which there is an existing glossary item, the existing glossary item may be inserted into the definition.

11.2.4 Context

A designation and/or description of the application environment or discipline in which the glossary item definition has meaning.	
Obligation to complete:	Conditional: Complete if there is more than one glossary item with the same name.
Completed by:	Developer
Visibility:	All users
Rules:	1. State or describe the application environment or discipline in which the glossary item has meaning, (e.g., palliative care). 2. Do not include the justification or reasoning for the glossary item.
Notes	1. There may be more than one glossary item with the same name if a particular term has different meanings in different contexts. In such cases, it is necessary for the 'context' attribute to clearly identify the context for each glossary item with the same name. 2. The context defines the setting within which the subject data has meaning. 3. The context attribute should be left blank if a metadata item is applicable in all contexts, or the context is implied by the metadata item name or definition. 4. See also section 2.6.3

11.2.5 Guide for use

Advice or instructions for the interpretation or application of the glossary item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Describe any restrictions on how the glossary item is intended to be interpreted or applied which are specific to the use of this term in this context.

11.2.6 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Outline any guidelines for the collection of all data that relate to the glossary item.

11.2.7 Comments

Any additional information that adds to the understanding of the glossary item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

11.2.8 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

11.2.9 Steward

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

11.2.10 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

11.2.11 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

11.2.12 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR. For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

11.2.13 Unresolved issues

Comments which highlight issues for data committees or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

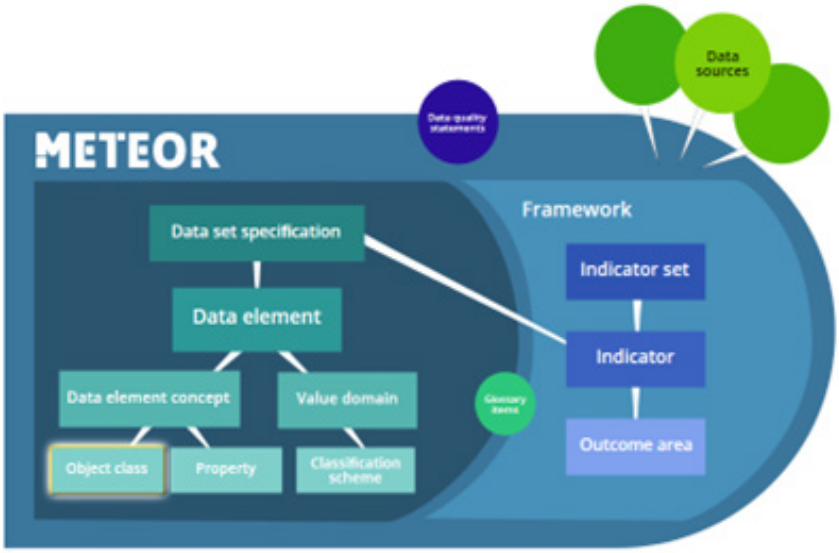
11.2.14 Submitting organisation contact details

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

11.2.15 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

12 Data set specification business rules



12.1 Introduction

A 'data set specification' is a grouping of data elements and/or other data set specifications, and the conditions under which the grouping should be collected or reported.

In METEOR there are generally three types of data set specifications:

- National minimum data set (NMDS)—a minimum set of data elements agreed for mandatory collection and reporting at a national level (e.g., Admitted patient care NMDS).
- Data set specification (DSS)—a metadata set that is not mandated for collection, but which is recommended as best practice (e.g., Youth justice DSS).
- Data element cluster—a group of data elements that are collected together for a specific purpose (e.g., Aged care person cluster). Clusters generally do not stand alone, but are included within other data set specifications.

In some sectors (e.g. the health sector) DSSs are further sub-divided into two types:

- National best endeavours data set (NBEDS)—a metadata set that is not mandated for collection, but where there is a commitment to provide data nationally on a best endeavours basis (e.g., Emergency service care NBEDS) and
- National best practice data sets (NBPDS)—a metadata set that is not mandated for collection, but which is recommended as best practice (e.g., Dementia NBPDS).

Remember the 'create once, use often' principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

12.1.1 For developers: Overview of data set specification attributes

Table 12.1.1.1 below provides an overview of the attributes requiring action by a developer when a data set specification is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 12.1.1.1: Overview of data set specification attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the data set specification	Mandatory	12.2.1
Data set specification type	Whether a data set specification is a National minimum data set, other data set specification, or data element cluster.	Mandatory	12.2.2
Scope	A description of the circumstances under which the collection of specified data are required or recommended.	Optional	12.2.3
Data elements/ Data set specifications	A list of the metadata items (either data elements or data set specifications) which are included in this data set specification	Mandatory/ Conditional. A total of at least two elements (i.e. any combination of DSS, cluster or data element) must be implemented in a DSS.	12.2.4
Data elements/ Data set specifications (Sequence number)	An indicator of the order of the data element or data set specification within the data collection or transmission	Optional	12.2.4.1
Data elements/ Data set specifications (Obligation)	An indicator of whether the data element or DSS is mandatory, optional or conditional for the collection of data within the data set.	Mandatory	12.2.4.2
Data elements/ Data set specifications (Maximum occurrences)	The maximum number of occurrences of the data element or DSS within the data set (i.e. single use or repeating group).	Mandatory	12.2.4.3
Data elements/ Data set specifications (conditional obligation)	A description of any conditions that apply to collection of data for a specified data element (or DSS) within a data set specification that has been set to 'conditional'.	Conditional: this attribute should be completed if the obligation has been set to 'conditional'.	12.2.4.4
Data elements/ Data set specifications (Other dataset specific information)	Any additional information relevant to the collection of a data item within the context of a particular DSS.	Optional	12.4.4.5

Attribute	Definition	Obligation to complete	Section in this Chapter
Statistical unit	The basic counting unit for a collection; i.e., a record is created within a collection for each new occurrence of the statistical unit.	Optional	12.2.5
Guide for use	Advice or instructions for the interpretation or application of the data set specification.	Optional	12.2.6
Collection methods	Advice or instructions for the actual capture of data.	Optional	12.2.7
Implementation start date	The date on which the collection of data for the data set specification is implemented for the first time.	Conditional: Must be completed if the data set specification is a National minimum data set.	12.2.8
Implementation end date	The date on which the collection of data for the data set specification is completed.	Conditional: Complete if the data set specification is a National minimum data set and has a specified implementation end date.	12.2.9
Comments	Any additional information that adds to the understanding of the data set specification.	Optional	12.2.10
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	12.2.11
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	12.2.12
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	12.2.13
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	12.2.14
Relationship type	An indicator for relationships between metadata items.	Mandatory	12.2.15

Attribute	Definition	Obligation to complete	Section in this Chapter
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	Completed by Registrar	12.2.16
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	12.2.17
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	12.2.18

12.1.2 For registrars: Overview of data set specification attributes

Table 12.1.2.1 below provides an overview of the attributes requiring action by a registrar when a data set specification is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 12.1.2.1: Overview of data set specification attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	12.2.12
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	Optional	12.2.16
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	12.2.17
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	12.2.18

12.2 Attributes requiring developer or registrar action

Attributes in the data set specification template requiring action by a developer or registrar are described below.

12.2.1 Name

A single or multi-word designation assigned to the data set specification.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The name must be concise and indicative of the content of the data set specification. 2. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name, for proper nouns, or when necessary for an acceptable abbreviation. 3. If the data set specification covers a financial year period, use an endash to separate years (e.g., Perinatal NMDS 2019–20). A quick way to insert an endash is to use the keyboard shortcut: Alt + 0150. 4. If the data set specification is open-ended, use an endash at end of first year period (e.g., Specialist homelessness services NMDS 2019–) 5. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 6. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 7. The following are not permitted: • colons • commas (exception is if required to separate two or more terms in a name (e.g., 'ear, nose and throat')) • full stops • square brackets • quotation marks
Notes	In a data set specification name, it is acceptable to use the acronym for the type of data set specification; for example: • Disability services NMDS 2018–19 • Adoptions DSS 2018–19 • Prisoner health NBEDS • Person and provider identification in healthcare NBPDS

12.2.2 Data set specification type

Provides information about whether a data set specification is a National minimum data set, other data set specification, or data element cluster.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one of the following data set specification types may be selected: • National minimum data set (NMDS): An NMDS reflects a national agreement to collect a consistent data set for a specified purpose. A data set specification must be agreed by relevant stakeholders for mandatory national reporting before it is approved as an NMDS. • Data set specification (DSS): A DSS is recommended as best practice if data are to be collected, but not mandated for collection. See note 1 below for information on National best endeavours data sets and National best practice data sets used in the health sector. • Data element cluster: A data element cluster consists of at least two data elements that relate to each other for a specific purpose. See Appendix H 'Data element clusters' for further information.
Notes	In a data set specification name, it is acceptable to use the acronym for the type of data set specification; for example: • Disability Services NMDS 2018–19 • Adoptions DSS 2018–19 • Prisoner health NBEDS • Person and provider identification in healthcare NBPDS

12.2.3 Scope

A description of the circumstances under which the collection of specified data are required or recommended.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. The scope should be expressed precisely and unambiguously so that the specified data can be collected under the same circumstances by different data collectors. 2. The scope should clearly identify all boundaries between those circumstances where collection is appropriate and those circumstances where it is not. These boundaries may potentially include geography, sources of funding, administering authorities, the type of services provided or the legal or administrative status of the people receiving services. 3. More than one boundary may be relevant to the scope of the collection. Complex boundaries may be explained with the use of an example.
Notes	In a data set specification name, it is acceptable to use the acronym for the type of data set specification; for example: • Disability Services NMDS 2018–19 • Adoptions DSS 2018–19 • Prisoner health NBEDS • Person and provider identification in healthcare NBPDS

12.2.4 Data elements/Data set specification

A list of the metadata items (either data element or data set specifications) which are included in this data set specification.	
Obligation to complete:	Mandatory/Conditional. A total of at least two elements (i.e. any combination of DSS, cluster or data element) must be implemented in a DSS.
Completed by:	Developer
Visibility:	All users
Rules:	At least two metadata items (any combination of DSS, data element cluster or data element) must be implemented in the data set specification. To assign metadata items to the DSS: 1. Click the Add item button. This will bring up a facility in which to choose metadata items from. 2. Click the Choose button. Select from the drop-down list: • A–Z listing • data element by data element concept • data element by value domain • data set specification by authority 3. Fill in Sequence Number to indicate the order of the data element with the data collection by typing directly into the text field (optional.) 4. Choose type of obligation (mandatory, conditional or optional) from the drop-down list. 5. Choose maximum occurrences of the data element from the drop-down list. 6. To add another metadata item click the Add button again and repeat steps 2 and 3. 7. Continue this process until all items are recorded. 8. To remove any of the values added, click the Cancel button.
Notes	1. When adding a cluster and/or data set specification, additional attribute fields will appear, some of which are mandatory completion. See 12.2.4.1 to 12.2.4.5 for associated additional attribute fields. 2. On completion of this attribute, METEOR automatically generates a list of the clusters/data set specifications implemented under the heading 'Metadata items in this Data Set Specification'.

12.2.4.1 Sequence number

An indicator of the order of the data element or data set specification within the data collection or transmission.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Upon saving, the elements in a data set specification appear in the order of their sequence numbers. 2. Where the sequence number is left blank, the elements in a data set specification appear in the following order: a. data set specifications/clusters alphabetically, then b. data elements alphabetically.

12.2.4.2 Obligation

An indicator of whether the data element or data set specification (DSS) is mandatory, optional or conditional for the collection of data within the data set.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Click on the drop-down list to choose from the type of obligation required. 1. Mandatory completion means that the data element/DSS must be included. 2. Conditional completion means that under specific criteria, a data element/DSS must be included. For items which are of conditional inclusion, the criteria for inclusion of the value must be specified within the Conditional obligation attribute box. 3. Optional completion means that a data element/DSS may or may not be collected. 4. Click the Remove button to remove data element.
Notes	1. NMDSs must only contain elements with an obligation of mandatory or conditional (i.e. no elements should be optional.) 2. It is recommended that NBEDSs only contain elements with an obligation of mandatory or conditional (i.e. no elements should be optional.) An NBEDS is often a preliminary step to an NMDS, and should show how data is to be collected once full national agreement is reached. In practice, the agreement to provide data on a best endeavours basis means that some elements are in fact reported optionally.

12.2.4.3 Maximum occurrences

The maximum number of occurrences of the data element or data set specification (DSS) within the data set (i.e. single-use or repeating).	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Click on the arrow in the drop-down list to select required occurrence.
Notes	1. Choose the logical number of potential maximum occurrences of the metadata element. For example, if a data element collecting the types of analgesia administered has 6 permissible values, and all may be collected, the maximum occurrences should be '6.' 2. '99' represents an unlimited number.

12.2.4.4 Conditional obligation

A description of any conditions that apply to collection of data for a specified data element (or data set specification) within the context of a particular data set specification.	
Obligation to complete:	Conditional (this attribute should be completed if the obligation for collecting data or DSS within a data set has been set to conditional)
Completed by:	Developer
Visibility:	All users
Rules:	In the attribute text box, document clearly any particular conditions relating to when a data element (or data set specification) is to be collected as part of a data set specification. For example, a conditional obligation is where one data element is only collected if another data element within the same data set specification has a particular value (e.g., only collect 'number of cigarettes smoked per day' when a person's is recorded as a 'regular smoker.')

12.2.4.5 Other dataset specific information

Any additional information relevant to the collection of a data item within the context of a particular data set specification.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. nclusion of a data item within a data set specification not covered by sequence, obligation, maximum occurrences or conditional obligation attributes. 2. This information should clearly document what other information is relevant to this data set. It may include the rules for subsequent data verification or justification for the collection of a particular data item within the data set specification. 3. Commonly, dataset specific information may provide clarifying information as to how a generic element is to be collected in this specific context, e.g., that a data element collecting a postcode should collect the postcode of the patient's address, rather than that of the hospital.

12.2.5 Statistical unit

The basic counting unit for a collection, meaning a record is created within a collection for each new occurrence of the statistical unit.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	The text field box should be used to clearly identify the statistical unit of the data set specification. 1. The statistical unit(s) must reflect the actual underlying methodology of the collection (i.e. a record is created within a data collection for each new occurrence of the statistical unit(s)). 2. Where a statistical unit is defined as a metadata item elsewhere in METEOR, such as an object class or glossary item, (e.g., the statistical unit 'Household' which is an object class) it should be linked to the metadata item using hypertext.
Notes	Where the purpose of a data collection is for statistical analysis, it is important to give some consideration to the statistical unit by which the data will be grouped. The statistical unit determines the level at which data will be collected and/or reported and is fundamental to a data set. For example, for a client-based collection the data could be collected at the client level, at the service contact level, the service episode level or at the service provider level (i.e. all clients to which a provider has provided services). While this attribute is optional, it is recommended that a statistical unit be specified for NMDSs and NBEDSs.

12.2.6 Guide for use

Advice or instructions for the interpretation or application of the data set specification.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe how the data set specification is intended to be interpreted or applied within the specified context.

12.2.7 Collection methods

Advice, comments or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	All users
Visibility:	Developer
Rules:	Outline any collection guidelines for the data set specification.

12.2.8 Implementation start date

The date on which the collection of data for the data set specification is implemented for the first time.	
Obligation to complete:	The date on which the collection of data for a particular data set specification was implemented for the first time, i.e. the date after which the definitions in the data set specification apply.
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the implementation start date from the calendar. 2. When the implementation start date calendar is selected it automatically defaults to today's date. To specify the implementation start date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e., 15 February 2006). 3. An NMDS should be approved as a standard on a date that is before its implementation start date. 4. If data set specification does not have an implementation start date (e.g., it is not an NMDS), tick the Not applicable box.

12.2.9 Implementation end date

The date on which the collection of data for a particular data set specification was completed, i.e. the last date when the definitions in the data set specification apply.	
Obligation to complete:	Conditional: mandatory if the data set specification is a National Minimum Data Set (NMDS) which has an end date, or where the definitions in the data set specification cease on a specific date.
Completed by:	Developer
Visibility:	All users
Rules:	The implementation end date often corresponds to the end of the reporting period for a collection 1. Select the implementation end date from the calendar. 2. When the implementation end date calendar is selected it automatically defaults to today's date. To specify the implementation end date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e., 15 February 2006). 3. Where a data set specification has open end dates, this attribute should be left blank (i.e. the attribute should be set to Not applicable by ticking the checkbox to the right of the date selector).

12.2.10 Comments

Any additional information that adds to the understanding of the data set specification.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any relevant additional information that facilitates understanding of the data set specification. For example, whether the data set specification is likely to be reviewed in the near future, considerations for further development, or to list the glossary items used in the data set specification.
Notes	1. Any glossary items implemented in the data set specification should be listed in 'comments' under the heading 'glossary items' with lead-in wording such as, 'Glossary terms that are relevant to this data set specification are:...' 2. Insert each glossary term by using the WYSIWIG editor toolbar. 3. Click on the METEOR drop-down menu. This brings up three options: metadata items, image and file. 4. Choose 'metadata items'. 5. Insert the glossary item ID number and click the OK button. 6. Repeat process if more items are needed.

12.2.11 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

12.2.12 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

12.2.13 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

12.2.14 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

12.2.15 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR. For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

12.2.16 Unresolved issues

Comments which highlight unresolved issues for data committee or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR. 2. Unresolved issues can only be created and viewed by registrars and have been designed to assist communication between registrars.
Notes	This attribute can only be created and viewed by registrars.

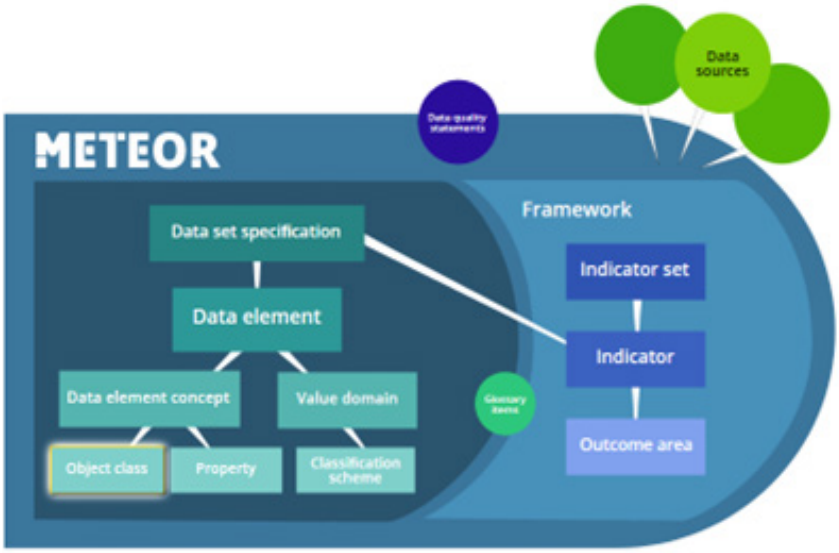
12.2.17 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

12.2.18 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

13 Indicator business rules



13.1 Introduction

An 'indicator' is the specification for a statistical measure used to describe the progress or performance of an aspect of society. This may be linked to a population, or a number related to the provision of goods and services output (i.e. representing a snapshot in time). An indicator is a means of measuring performance against a target and may track change, progress and/or performance towards the achievement of objectives (i.e. benchmarking). An indicator can be expressed as a simple number, a fraction, percentage, proportion, or complex computation.

The statistics described in indicators and indicator sets are often based on the variables collected by the data elements in a data set specification, and thus may be thought of with the analogy of the 'pivot table' created from the DSS's 'spreadsheet.' For example, a DSS may describe all the variables collected for each person or each episode in a specific context, with a new line created for each instance. The indicator then describes how calculations are to be made on this data, based on instances where specific conditions are met (e.g., where the variable Sex is recorded as male, and the variable Blood-pressure is recorded as greater than 130 over 80.)

Note, indicators in METEOR may refer to data sets external to METEOR, i.e. where the DSS and data elements are not explicitly described in METEOR.

A group of indicators form an indicator set. If applicable, the same indicator may appear in more than one indicator set.

Indicators in METEOR have some specific attributes, including:

- Outcome areas: The particular target of the indicator against which performance is assessed.
- Framework and dimensions: The particular part of the framework which the indicator is reported against.
- Data quality statement: A statement assessing the quality of the data for reporting against the indicator.

- Data elements: The data elements (and data set specifications and data sources) that are used to calculate the computational components (numerator, denominator and disaggregation).

NB. In the past it has been common for properties which express an essentially binary choice between values to include the word 'indicator' in their name, for example 'Data estimated indicator.' To avoid confusion with the metadata type indicator, developers are recommended to use the word 'flag' instead. Properties using the word 'indicator' will remain as is in METEOR until updated for another reason.

13.1.1 For developers: Overview of indicator attributes

Table 13.1.1.1 below provides an overview of the attributes requiring action by a developer when an indicator is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 13.1.1.1: Overview of indicator attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the indicator, set by the auspice body responsible for defining the indicators.	Mandatory	13.2.1
Indicator type	The type of indicator used to describe the progress or performance of the health or welfare system. There are three types: indicator, output measure and progress measure.	Mandatory	13.2.2
Common name	A common name or designation by which the indicator is known and might be identified by.	Optional	13.2.3
Short name	A short or common name or designation by which the indicator is known and might be identified	Mandatory	13.2.4
Synonymous name(s)	One or more synonyms for the indicator name within the context of the metadata item.	Optional	13.2.5
Description	A concise description of the indicator.	Mandatory	13.2.6
Rationale	A designation or description of the application environment or discipline in which the indicator is applied or from which it originates, as well as a justification for inclusion of the indicator.	Optional	13.2.7
Indicator set	The group of related indicators to which the indicator belongs. N.B. The name of the indicator set may appear in the name of each indicator (e.g., National Health Agreement). See also Chapter 14	Conditional: Complete if the indicator forms part of an indicator set. N.B. An indicator may belong to more than one indicator set.	13.2.8
Outcome area	An outcome area is a statistical measure used to describe the progress or performance of the health or welfare system. This may be linked to a population, or a number related to the provision of goods and services-output.	Conditional: Complete if there is a requirement to specify an outcome area for the indicator.	13.2.9

Attribute	Definition	Obligation to complete	Section in this Chapter
Data quality statement	A statement of multiple quality dimensions for the purpose of assessing the quality of the data for reporting against the indicator or data source.	Optional	13.2.10
Population age group from	Contextual information about the age of the section of the population the indicator refers to. Specifically, the age at which the collection of information commences.	Optional	13.2.11
Population age group to	Contextual information about the age of the section of the population the indicator refers to. Specifically, the age at which the collection of information ceases.	Optional	13.2.12
Computation description	The plain text description of the measure or computation used to calculate the indicator.	Conditional: complete for indicators that have a clearly described calculation or formula	13.2.13
Computation	A concise, mathematical, description of the calculations used by the indicator, as applied to the numerator and denominator.	Mandatory	13.2.14
Numerator	A concise description of how the numerator used in the indicator calculations is composed. A numerator is the number above the line in a fraction, or the representation of a count in a measure.	Mandatory	13.2.15
Numerator data elements	A set of items used to calculate the numerator, including data element/data set (or a description of the data element if one has not been attached), data source, NMDS/DSS, and collection methods/ guide for use.	Conditional: complete if only those data elements or data sets which implement this indicator as a numerator are to be listed	13.2.16
Denominator	A concise description of how the denominator used in the indicator calculations is composed. A denominator is the number below the line in a fraction.	Conditional: Complete if the indicator's computation has a denominator.	13.2.17
Denominator items	A set of items used to calculate the denominator, including data element/data set (or a description of the data element if one has not been attached), data source, NMDS/DSS, and collection methods/ guide for use.	Conditional: Complete if the indicator's computation has a denominator.	13.2.18
Disaggregation	A concise description of how the data in the indicator have been broken down into smaller units or component parts, e.g., by sex, age, location, etc.	Conditional: Complete if the indicator is disaggregated.	13.2.19
Disaggregation items	A set of items used to calculate the disaggregated output, including data element/data set (or a description of the data element if one has not been attached), data source, NMDS/DSS, and collection methods/guide for use.	Conditional: Complete if the indicator has disaggregated output.	13.2.20

Attribute	Definition	Obligation to complete	Section in this Chapter
Comments	Any additional information that adds to the understanding of the indicator.	Optional	13.2.21
Representation class	The class of statistical data that is represented by the indicator. For example, 'count', 'incidence', 'mean (average)', 'percentage', 'rate', or 'ratio'.	Mandatory	13.2.22
Data type	The type of data presented in the indicator (i.e. the output of the indicator's calculation.). Options are 'coded category', 'integer', 'monetary amount', 'point in time', 'real', 'time period.'	Mandatory	13.2.23
Unit of measure	The counting unit upon which the calculations of the indicator are based	Mandatory	13.2.24
Format	A template for the presentation of values, including specification and layout of permitted characters, the maximum and minimum size, and precision. It is not a template for electronic data transmission or storage.	Mandatory	13.2.25
Framework and dimensions	A concise statement that expresses the facet in which an indicator is grouped.	Conditional: Complete if the indicator is reported against a framework.	13.2.26
Data source(s)	A specific data set, database and reference from where data are sourced.	Conditional (system generated)	13.2.27
Methodology	The detailed description of how the data used to calculate the indicator. has been collected or analysed.	Optional	13.2.28
Formulae	A group of symbols that make a formal mathematical statement, used to express how the calculations which underpin the indicator have been formulated.	Optional	13.2.29
Reporting requirements	The arrangement under which the indicator is reportable.	Mandatory	13.2.30
Organisation responsible for providing data	The organisation(s) that supplies data for the indicator.	Mandatory	13.2.31
Accountability	The organisation(s) responsible for developing, collecting and reporting data for the indicator.	Mandatory	13.2.32
Benchmark	A standard, or point of reference, against which the indicator can be compared, assessed, measured or judged.	Conditional: Complete if the indicator has a benchmark.	13.2.33
International comparison	A statement or indication of similarities and differences relating to an indicator between Australia and other countries.	Conditional: Complete if there is an international comparison for the indicator.	13.2.34

Attribute	Definition	Obligation to complete	Section in this Chapter
Further data development/ collection required	Describes whether the data specifications for an indicator is interim or development is long term. Planned data development such as changes to definitions and methodology indicate the indicator is an interim specification.	Conditional: Complete if there is a need for further data development or data collection for the indicator.	13.2.35
Other issues caveats	Any additional information required to interpret the data, or any other issues or caveats which have not been reported in another field in the template.	Conditional: Complete if there are other issues or caveats that have not been reported or described for the indicator elsewhere in the indicator template.	13.2.36
First release date	The day, month and year the indicator is publicly released.	Conditional: Complete if the indicator has a specified release date.	13.2.37
Submitting organisation	One or more organisations responsible for the submission of the indicator for endorsement as a standard.	Mandatory	13.2.38
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item..	Completed by registrar.	13.2.39
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) that are the direct source of content for the indicator.	Conditional: Complete for metadata items based on the content outside of METEOR.	13.2.40
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the indicator.	Conditional: Complete for metadata items developed in consultation with a publication and/or website outside of METEOR.	13.2.41
Relationship type	An indicator of relationships between metadata items.	Optional	13.2.42
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	Completed by registrar.	13.2.43
Submitting organisation contact details	Details of at least one contact person for each listed submitting organisation.	Completed by registrar.	13.2.44
Steward contact details	Details of at least one contact person for the Steward organisation.	Completed by registrar.	13.2.45

13.1.2 For registrars: Overview of indicator attributes

Table 13.1.2.1 below provides an overview of the attributes requiring action by a registrar when an indicator is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 13.1.2.1: Overview of indicator attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	13.3.39
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	Optional	13.2.43
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	13.2.44
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	13.2.45

13.2 Attributes requiring developer or registrar action

Attributes in the indicator template requiring action by a developer or registrar are described below.

13.2.1 Name

A single or multi-word designation assigned to the indicator.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Indicator name components and arrangement:	Agreement name + colon + indicator reference number + hyphen + formal indicator name +comma+ year indicator was last updated. For example, National Healthcare Agreement: PB g-Better health services: the rate of Staphylococcus aureus (including MRSA) is no more than 2.0 per 10,000 occupied beds for acute care public hospitals by 2011–12 in each state and territory, 2021.
Rules	1. Capital letter should only be used for each first letter of the indicator set name, letters used in the indicator reference number, and the first letter of the formal indicator name. 2. A colon should only be used to separate the agreement name and the indicator reference number. 3. A hyphen should only be used to separate the indicator reference number and the formal indicator name. 4. Commas should only be used to separate formal indicator name from the year the indicator was last updated. 5. Full stops are not permitted unless they are a part of the agreement name or the formal indicator name as specified by the responsible auspice body. 6. Em dashes are not permitted unless they are a part of the agreement name or the formal indicator name as specified by the responsible auspice body. 7. Parentheses are not permitted unless they are a part of the agreement name or the formal indicator name as specified by the responsible auspice body. 8. Square and curly brackets (braces) are not permitted unless they are a part of the agreement name or the formal indicator name as specified by the responsible auspice body.
Notes	In some cases, the same indicator may appear in more than one indicator set. In such cases, the agreement name and indicator reference number do not appear in the indicator name.

13.2.2 Indicator type

The type of indicator used to describe the progress or performance of the health or welfare system.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. There are three types of indicators but only one of the following may be selected. Select from the drop-down menu: • Indicator: An indicator that is neither an input/output measure nor a progress measure. This indicator type is generally focused on outcomes and also includes performance benchmarks and structural indicators. • Output measure: An output measure is generally focused on the provision of government services. • Progress measure: A progress measure is generally focused on progress towards reaching an objective.

13.2.3 Common name

A common name or designation by which the indicator is known and might be identified by.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	State the name the indicator is commonly known by (e.g., 'Tobacco smoking in pregnancy').

13.2.4 Short name

A short or common name or designation by which the indicator is known and might be identified by.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Indicator reference number + Hyphen + indicator name +comma+ space + year indicator was last updated. For example, P01-Proportion of babies born with low birth weight, 2010 2. Where the indicator short name is the same as another indicator short name, but belongs to another national agreement, the names can be differentiated by adding the name of the agreement and the reference year of the agreement.

13.2.5 Synonymous name(s)

One or more synonyms for the indicator name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for property may include: Clinical intervention; Operation; Surgery 4. End the list of synonymous names without a full stop.

13.2.6 Description

A concise description of the indicator.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Provide a concise description of the indicator including appropriate values such as percentage, count, proportion, mean (average), percentile, and the like, as applicable. For example, 'Proportion of population receiving clinical mental health services.' 2. Express the description as a complete, grammatically correct, or sentences. 3. If there is a need to define a term within the description (or elsewhere in the indicator set), a glossary item may be used.
Notes	See chapter 11 'Glossary item business rules' if a new glossary item needs to be created.

13.2.7 Rationale

A designation or description of the application environment or discipline in which the indicator is applied or from which it originates, as well as a justification for inclusion of the indicator	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Briefly state or describe the application environment and justification for the indicator. For example: "For First Nations people with type 2 diabetes, monitoring blood pressure can help assure appropriate medical care to lower the risk of macrovascular (stroke, heart attack and heart failure) and microvascular (kidney disease, eye disease and peripheral neuropathy) complications."

13.2.8 Indicator set

A group of related indicators.	
Obligation to complete:	Conditional: Complete if the indicator forms part of an indicator set.
Completed by:	Developer
Visibility:	All users
Rules:	Indicators are added to an indicator set from the indicator set template. N.B. An indicator may belong to more than one indicator set. See chapter 14 'Indicator set business rules.'

13.2.9 Outcome area

An outcome area is a statistical measure used to describe the progress or performance of the health or welfare system. This may be linked to a population or a number related to the provision of goods and services-output.	
Obligation to complete:	Conditional: Complete if there is a requirement to specify an outcome area for the indicator.
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the outcome area(s) applicable to the indicator by clicking on the Choose button. 2. Click the Add button. 3. The lowest level dimension that is relevant to the indicator should be selected. For example the 'Australian Health Performance Framework' is considered the broadest level dimension, followed by 'Domain 1 – Determinants of Health' which is a mid-level dimension and has a 'wellbeing' sub-dimension at the lowest level.
Notes	Outcome areas are generally applicable when an indicator or indicator set are tied to a strategic plan with outcomes specified.

13.2.10 Data quality statement

A statement of multiple quality dimensions for the purpose of assessing the quality of the data for reporting against the indicator.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the data quality statement applicable to the indicator by clicking on the Choose button. 2. Click the Add button. 3. Only one data quality statement may be selected.
Notes	See chapter 17 'Data quality statement business rules.'

13.2.11 Population group age from

Contextual information about the age of the section of the population the indicator refers to. Specifically, the age at which the collection of information commences.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	State the age at which the target population age range commences (e.g., '5 years').
Notes	If there is a break in the population age range (e.g., 5 to 15 and 25 to 64 years), 'age from' may be specified as per the example below: Child: 5 years Adult: 25 years.

13.2.12 Population group age to

Contextual information about the age of the section of the population the indicator refers to. Specifically, the age at which the collection of information ceases.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	State the age at which the target population age range ends (e.g., '64 years').
Notes	If there is a break in the population age range (e.g., 5 to 15 and 25 to 64 years), 'age to' may be specified as per the example below: Child: 15 years Adult: 64 years.

13.2.13 Computation description

The plain text description of the measure or computation used to calculate the indicator.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Clearly describe the computation including as much information as necessary, including presentation. For example: • Count of Indigenous regular clients aged 11 and over whose smoking status was recorded within the previous 24 months. Presented as a number. • The number of live born babies at or after term (from 37 completed weeks gestational age) with an Apgar score of less than 7 at 5 minutes, divided by the number of live born babies born at or after term (from 37 completed weeks gestational age). Presented as a percentage.

13.2.14 Computation

A concise, mathematical, description of the calculations used by the indicator, as applied to the numerator and denominator.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Specify the formal mathematical calculation (e.g., '(Numerator ÷ Denominator) x 100'). 2. Include any other necessary computational information, as appropriate.
Notes	In the case of a 'count' where there is no mathematical computation, it is recommended that 'numerator only' be stated.

13.2.15 Numerator

A concise description of how the numerator used in the indicator calculations is composed. A numerator is the number above the line in a fraction, or the representation of a count in a measure.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Clearly describe the numerator (e.g., Number of persons aged 18 and over who smoke tobacco every day).
Notes	When the numerator represents a count, rather than a fractional representation, the numerator attribute is completed and the denominator attribute is left blank.

13.2.16 Numerator data elements

A set of items used to calculate the numerator, including data element/data set, data source, NMDS/DSS, and collection methods/guide for use.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Numerator items are composed of the following. Select or specify the relevant items to calculate the numerator: • The numerator data element is a set of data elements used to calculate the numerator. Where a data element has not been attached the user can include a description of the intended data element in the field labelled 'data element description if no data element is attached'. • The data source is a specific data set, database or reference from where data are sourced. See chapter 18 'Data source business rules.' • The NMDS/DSS is the name of the National minimum data set or data set specification from which the data element is sourced. • The collection methods/guide for use includes information such as the methods of data collection including census, sample survey, and administrative by-product. The collection methods/guide for use may also define which permissible values from a data element are to be included in a calculation, e.g., Include persons with a body mass index (BMI) ≥30 (Obese) • The numerator data element/s, data source and/or NMDS/DSS attached to the indicator must relate to the appropriate year/s of data collection.
Notes	1. Click the Add item button to select numerator items. 2. Choose from data element/data set; data source; NMDS/DSS options. 3. Enter chosen item's ID and click OK button. 4. If the data element does not exist in METEOR, descriptions can be provided in the 'data element description, if no data element attached' attribute box. 5. Collection and guide for use instructions can be provided in the 'collections method and guide for use' attribute box. Please note: if the indicator is not based on a NMDS/DSS registered in METEOR, data elements should be described in the 'data element description, if no data element attached' attribute box rather than by a link. This is because even common variables like 'sex' or 'Indigenous status' may not be collected in conformance to the standard in external data sources.

13.2.17 Denominator

A concise description of how the denominator used in the indicator calculations is composed. A denominator is the number below the line in a fraction.	
Obligation to complete:	Conditional: Complete if the indicator's computation has a denominator.
Completed by:	Developer
Visibility:	All users
Rules:	Clearly describe the denominator, for example: • population aged 18 years and over • total number of regular clients who are Indigenous, and have Type II diabetes Where the numerator is used to represent a count, rather than a fractional representation, the denominator should be left blank.

13.2.18 Denominator data elements

A set of items used to calculate the denominator, including data element/data set, data source, NMDS/DSS, and collection methods/guide for use.	
Obligation to complete:	Conditional: Complete if the indicator's computation has a denominator.
Completed by:	Developer
Visibility:	All users
Rules:	Denominator items are composed of the following. Select or specify the relevant items used to calculate the denominator: • The denominator data element is a set of data elements used to calculate denominator. Where a data element has not been attached the user can include a description of the intended data element in the field labelled 'data element description if no data element attached'. • The data source is a specific data set, database or reference from where data are sourced. See chapter 18 'Data source business rules.' • The NMDS/DSS is the name of the National minimum data set or data set specifications from which the data element is sourced. • The collection methods/guide for use includes information such as the methods of data collection including census, sample survey, and administrative by-product. The collection methods/guide for use may also define which permissible values from a data element are to be included in a calculation, e.g., Include persons aged ≥ 18 years. • The denominator data element/s, data source and/or NMDS/DSS attached to the indicator must relate to the appropriate year/s of data collection.

Notes	1. Click the Add item button to select denominator items. 2. Choose from data element/data set; data source; NMDS/DSS options. 3. Enter chosen item's ID and click OK button. 4. If the data element does not exist in METEOR, descriptions can be provided in 'Data element description, if no data element attached' attribute box. 5. Collection and guide for use instructions can be provided in the 'Collection methods and guide for use' attribute box. Please note: if the indicator is not based on a NMDS/DSS registered in METEOR, data elements should be described in the 'data element description, if no data element attached' attribute box rather than by a link. This is because even common variables like 'sex' or 'Indigenous status' may not be collected in conformance to the standard in external data sources.

13.2.19 Disaggregation

A concise description of how the data in the indicator have been broken down into smaller units or component parts, e.g. by sex, age, location, etc.	
Obligation to complete:	Conditional: Complete if the indicator is disaggregated.
Completed by:	Developer
Visibility:	All users
Rules:	Clearly describe the disaggregation. For example • sex • age - <18 years - 18-64 years - >65 years • state or territory of usual residence

13.2.20 Disaggregation items

A set of items used to calculate the disaggregated output, including data element/data set, data source, NMDS/DSS, and collection methods/guide for use.	
Obligation to complete:	Conditional: Complete if the indicator has disaggregated output.
Completed by:	Developer
Visibility:	All users
Rules:	Disaggregation items are composed of the following. Select or specify the relevant items used to calculate the denominator: • The disaggregated data element is a set of data elements used to calculate disaggregation. Where a data element has not been attached the user can include a description of the intended data element in the field labelled 'data element description if no data element attached'. • The data source is a specific data set, database and reference from where data are sourced. See chapter 18 'Data source business rules.' • The NMDS/DSS is the name of the National minimum data set or data set specifications from which the data element is sourced. • The collection methods/guide for use includes information such as the methods of data collection including census, sample survey, and administrative by-product. The collection methods/guide for use may also define which permissible values from a data element are to be included in the disaggregation, e.g., Male and Female only. • The disaggregated data element/s, data source and/or NMDS/DSS attached to the indicator must relate to the appropriate year/s of data collection.
Notes	1. Use the Add items button to add disaggregation items. 2. Choose from data element/data set; data source; NMDS/DSS options. 3. Enter chosen item's ID and click OK button. 4. If the data element does not exist in METEOR, descriptions can be provided in 'data element description, if no data element attached' attribute box . 5. Collection and guide for use instructions can be provided in the 'collection methods and guide for use attribute box. Please note: if the indicator is not based on a NMDS/DSS registered in METEOR, data elements should be described in the 'data element description, if no data element attached' attribute box rather than by a link. This is because even common variables like 'sex' or 'Indigenous status' may not be collected in conformance to the standard in external data sources.

13.2.21 Comments

Any additional information that adds to the understanding of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any additional information which facilitates understanding of the indicator not covered elsewhere in the indicator template. For example, potential terminology issues, and justification for the inclusion or exclusion of content.
Notes	1. Use the 'other issues caveats' attribute when it is necessary to provide additional information required to interpret the data, or any other issues or caveats which have not been reported in another field in the template. 2. Use the 'further data development/collection required' attribute when it is necessary to provide information about whether the specification for an indicator is interim or development is long term.

13.2.22 Representation class

The class of statistical data that is represented by the indicator. For example, 'count', 'incidence', 'mean (average)', 'percentage', 'rate', or 'ratio'.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one representation class may be selected. 2. To progress to the *Incomplete* registration status, this attribute must have a value selected.
Notes	For a list of the representational class values and their associated meaning, see Table G1 'Representation class values and their associated meaning' in Appendix G 'Value representation tables'.

13.2.23 Data type

The type of data presented in the indicator (i.e. the output of the indicator's calculation.) Options are 'coded category', 'integer', 'monetary amount', 'point in time', 'real', 'time period.'	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one data type may be selected. 2. The data type must be appropriate for the representation class: 3. To progress to the *Incomplete* registration status, this attribute must have a value selected.
Notes	See 'Table G4: Indicator data type values and their associated meaning.'

13.2.24 Unit of measure

The counting unit upon which the calculations of the indicator are based.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Only one unit of measure may be selected. 2. To assign a unit of measure, click on the drop-down menu to choose a value from the list. 3. If the required unit of measure does not already exist in METEOR, a new unit of measure may need to be created. Only registrars can create a new unit of measure.
Notes	Some non-mandatory attributes in legacy METEOR are now mandatory in the new platform. If an item cannot be progressed to an *Incomplete* registration status, this means that some of the mandatory fields have not been filled in. The developer will need to edit the item, fill in the relevant mandatory field/s (in this case, the unit of measure) so the item can be updated. Mandatory fields are indicated by a red asterisk. For a list of the units of measure, see Table G9 'Units of measure classified by measure' in Appendix G' Value representation tables'.

13.2.25 Format

A template for the presentation of values, including specification and layout of permitted characters, the maximum and minimum size, and precision. It is not a template for electronic data transmission or storage.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Specify the valid format values for the indicator. 2. Formatting characters such as decimal points, full stops, commas and hyphens are specified using symbolic representation. For example, a number with a precision of one is represented by the format 'N.N'. 3. Characters which are not enclosed in brackets signify a value which must be represented. 4. If a character is repeated more than 6 times in succession, round brackets and a number are to be used to indicate the number of repeats. For example, 'X(7)' not 'XXXXXXX'. 5. Position characters using a protocol reading from inner brackets (if any) to outer brackets – from left to right. For example NNNNX[AA} represents four numeric characters followed by one alphanumeric character, and up to two alphabetic characters (i.e. NNNNX, NNNNZA or NNNNXAA) 6. Express a sequence of characters of a given character type by ordering characters which must be represented to the left of characters that may/not be represented. For example, NN[N] and not, [N]NN.
Notes	Filling in this attribute is not mandatory until it progresses to the *Incomplete* registration status. As indicators typically describe mathematical calculations, this attribute will generally represent a numerical value (though exceptions do occur.) Common examples include: • N[NNNN]{.N[N]} (for a rate per 100,000 people, accurate to 2 decimal places) • N[NN]{.N} (for a percentage, accurate to 1 decimal place, where the target outcome is 100%) • N[N]{.N} (for a percentage, accurate to 1 decimal place, where the target outcome is 0%.) See Table G4 'Format values and their associated meaning' in Appendix G 'Value representation tables' for format values and valid character range. See Table G5 'Examples of values to be represented and their associated format' in Appendix G 'Value representation tables' for format examples.

13.2.26 Framework dimensions

A concise statement that expresses the facet in which an indicator is grouped.	
Obligation to complete:	Conditional: Complete if the indicator is reported against a framework.
Completed by:	Developer
Visibility:	All users
Rules:	Select the framework dimension(s) including tier(s) or sub-dimension(s) applicable to the indicator using the Add item button. 1. A dimension is part of a framework (e.g., 'Australian Health Performance Framework') that provides a structure to guide the understanding and evaluation of the system or program being investigated and reported. A framework may consist of tiers, dimensions and sub-dimensions. 2. The framework above may consist of these dimensions: • determinants of health • health system • health status • health system context 3. Sub-dimensions may consist of: • socioeconomic factors • continuity of care • health conditions • deaths 4. f the required framework does not already exist in METEOR, a new framework may need to be created by a registrar. See chapter 16 'Framework dimension business rules'.

13.2.27 Data source(s)

A specific data set, database and reference from where data are sourced.	
Obligation to complete:	Conditional (system generated)
Completed by:	Developer
Visibility:	All users
Rules:	This attribute is system generated when a data source is specified in any one of the numerator item, denominator item or disaggregation item attributes.
Notes	The data source linked to from either numerator item, denominator item or disaggregation item attributes displays, showing the data source's name, frequency, data custodian, plus a link to the relevant data quality statement. See chapter 18 'Data source business rules.'

13.2.28 Methodology

The detailed description of how the data used to calculate the indicator has been collected or analysed.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Where necessary, provide a detailed description of how the data used to calculate the indicator has been collected or analysed..

13.2.29 Formulae

A group of symbols that make a formal mathematical statement, used to express the calculations which underpin the indicator.	
Obligation to complete:	Conditional: Complete for indicators that have a clearly described formula/e.
Completed by:	Developer
Visibility:	All users
Rules:	Where necessary, provide additional information about how formulae used to calculate the indicator are constructed.

13.2.30 Reporting requirements

The arrangement under which the indicator is reportable.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Specify the arrangement under which the indicator is reportable, such as any applicable agreements, or the organisation responsible. Examples include: • Fourth Action Plan under the National Framework for Protecting Australia's Children 2009–2020 • Funding agreements between the Department of Health and Aged Care and the organisations funded under the Indigenous Australians' Health Programme (IAHP) • Australian Institute of Health and Welfare • states and territories. 2. In cases where there is no reporting specified: • no formal reporting requirements.

13.2.31 Organisation responsible for providing data

The organisation(s) that supplies data for the indicator.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. State the name of the organisation(s) responsible for supplying data for the indicator. 2. If more there is more than one organisation, list each organisation underneath each other. 3. Spell out the names of organisations (followed by the acronym in parentheses, if applicable).

13.2.32 Accountability

The organisation(s) responsible for developing, collecting and reporting data for the indicator.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. State the formal name of the organisation(s) responsible for developing, collecting and reporting data for the indictor. 2. If more there is more than one organisation, list each organisation underneath each other. 3. Spell out the names of organisations (followed by the acronym in parentheses, if applicable).

13.2.33 Benchmark

A standard, or point of reference, against which the indicator can be compared, assessed, measured or judged.	
Obligation to complete:	Conditional: Complete if the indicator has a benchmark.
Completed by:	Developer
Visibility:	All users
Rules:	Express as complete, grammatically correct, descriptive phrase(s), sentence(s) or paragraph(s).
Notes	Examples: • National Healthcare Agreement Performance Benchmark: 'Close the life expectancy gap for Indigenous Australians within a generation. • Related NDA benchmark - Performance benchmark (b) A decrease in the proportion of potential population with unmet demand for services. Note: Framework and dimensions can be used as a benchmark (e.g., The Australian Health Performance Framework)

13.2.34 International comparison

A statement or indication of similarities and differences relating to an indicator between Australia and other countries.	
Obligation to complete:	Conditional: Complete if there is an international comparison for the indicator.
Completed by:	Developer
Visibility:	All users
Rules:	Express as complete, grammatically correct, descriptive phrase(s), sentence(s) or paragraph(s). Example: • This indicator relates to Indicators 13 and 14 in the World Health Organization (WHO) Global Action Plan for the Prevention and Control of Noncommunicable Diseases, 2012–2020 (WHO 2013).

13.2.35 Further data development/collection required

Describes whether the data specifications for an indicator are interim or long term. Planned data development such as changes to definitions and methodology indicate the indicator is an interim specification.	
Obligation to complete:	Conditional: Complete if there is a need for further data development or data collection for the indicator.
Completed by:	Developer
Visibility:	All users
Rules:	Express as complete, grammatically correct, descriptive phrase(s), sentence(s) or paragraph(s).
Notes	Planned data development, such as changes to definitions and methodology, indicate the indicator is an interim specification. Examples: • This indicator cannot be accurately constructed using the mental health National minimum data sets because they do not include unique patient identifiers that allow links across data sets and financial reporting years. Development of state-wide unique patient identifiers within all mental health NMDSs is needed to improve this capacity. • Methodology to collect multifaceted levels of service usage, such as intensity and complexity issues and the impact on contact duration, is needed in order to improve cost modelling and efficiency measurement in general.

13.2.36 Other issues caveats

Any additional information required to interpret the data, or any other issues or caveats which have not been reported in another field in the template.	
Obligation to complete:	Conditional: Complete if there are other issues or caveats that have not been reported or described for the indicator elsewhere in the indicator template.
Completed by:	Developer
Visibility:	All users
Rules:	Express as complete, grammatically correct, descriptive phrase(s), sentence(s) or paragraph(s).

13.2.37 Release date

The day, month and year the indicator is publicly released.	
Obligation to complete:	Conditional: Complete if the indicator has a specified release date.
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the release date from the calendar. 2. When the release date calendar is selected it automatically defaults to today's date. To specify the release date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e., 15 February 2006). 3. If an indicator does not have an date tick the Not applicable box.
Notes	Not all indicators used in an Indicator Set will have the same release dates. The date referred to here is the earliest release date.

13.2.38 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

13.2.39 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

13.2.40 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'reference documents' attribute and vice versa.

13.2.41 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference documents' attribute are not included in the 'origin' attribute and vice versa.

13.2.42 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

13.2.43 Unresolved issues

Comments which highlight unresolved issues for data committee or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR. 2. Unresolved issues can only be created and viewed by registrars and have been designed to assist communication between registrars.
Notes	This attribute can only be created and viewed by registrars.

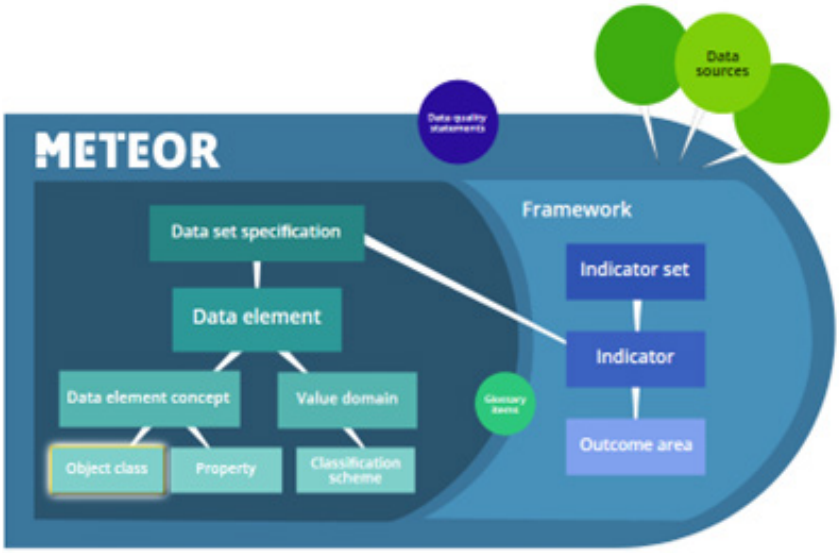
13.2.44 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

13.2.45 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

14 Indicator set business rules



14.1 Introduction

An 'indicator set' is a group of indicator specifications that are considered together in relation to a particular part of, or the whole system or program being examined.

An indicator set is generally based on a particular service sector or funding model that has a clearly defined governance structure. They provide a way of monitoring the progress of healthcare and welfare services.

Indicator sets rely on an agreement, framework or standard that defines the overall objectives and outputs that are to be measured. Specific indicators grouped together also provide a bigger picture of how a program is performing overall.

Indicator sets have two components:

- indicators
- outcome areas

The union of a specific indicator set with a specific outcome area and an indicator creates a performance indicator for a specific agreement. For example, National Disability Agreement indicator set can be combined with People with disability achieve economic participation and social inclusion outcome area, and Labour force participation rate for people with disability aged 15–64 years, 2011 indicator to create the performance indicator, National Disability Agreement: a(3)-Labour force participation rate for people with disability aged 15–64 years, 2011.

14.1.1 For developers: Overview of indicator set attributes

Table 14.1.1.1 below provides an overview of the attributes requiring action by a developer when an indicator set is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 14.1.1.1: Overview of indicator set attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the indicator set.	Mandatory	14.2.1
Indicator set type	The type of indicator set according to its origin or auspice body responsible for defining the indicators contained within it.	Mandatory	14.2.2
Description	A concise description of the common objectives shared by the indicators in the indicator set.	Mandatory	14.2.3
Indicators linked to indicator set	The individual indicators linked to from the indicator set	Mandatory	14.2.4
Relationship type	An indicator for relationships between metadata items.	Optional	14.2.5
National reporting arrangement	The arrangement under which the indicator set is reportable at a national level.	Conditional: Complete for indicator sets that have a national reporting requirement.	14.2.6
Implementation start date	The date upon which the indicator set is first implemented.	Conditional: Complete if the indicator set has a specified implementation date.	14.2.7
Implementation end date	The date upon which the indicator sets implementation is completed.	Conditional: Complete if the indicator set has a specified implementation end date	14.2.8
Comments	Any additional information that adds to the understanding of the indicator set.	Optional	14.2.9
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	14.2.10
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Completed by Registrar.	14.2.11
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	14.2.12

Attribute	Definition	Obligation to complete	Section in this Chapter
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	14.2.13
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	Completed by registrar.	14.2.14
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Completed by registrar.	14.2.15
Steward contact details	The details of at least one contact person for the Steward organisation.	Completed by registrar.	14.2.16

14.1.2 For registrars: Overview of indicator set attributes

Table 14.1.2.1 below provides an overview of the attributes requiring action by a registrar when an indicator set is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 14.1.2.1: Overview of indicator set attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	14.2.11
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	Optional	14.2.13
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	14.2.14
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	14.2.16

14.2 Attributes requiring developer or registrar action

Attributes in the indicator set template requiring action by a developer or registrar are described below.

14.2.1 Name

A single or multi-word designation assigned to the indicator set.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. State the full or formal name given to the set of indicator specifications, as specified by the auspice body responsible for defining the indicators, followed by the effective year (i.e. the year the set of indicator specifications is implemented) in parentheses. For example: National Healthcare Agreement (2022) 2. The following year rules are applicable: • If the indicator set is effective for one calendar year, then year is; for example, 'National Healthcare Agreement (2022)'. • If the indicator set has a known implementation year, but the implementation end period is unknown, then only the known implementation year is used; for example, 'National Healthcare Agreement (2022)' rather than 'National Health Agreement (2022–)'. • If the indicator set is effective across multiple calendar or financial years (and implementation end date is known), then the range of years should be included; for example, 'National Health Agreement (2020–2022)'. • If an indicator set is effective across a single financial year (and implementation end date is known), then year is; for example, 'National Health Agreement (2022–23)' 3. The indicator set name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name, for proper nouns, or when necessary for an acceptable abbreviation. 4. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 5. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 6. The following are permitted only if they form part of the formal name of the agreement: • commas 7. The following are not permitted: • • full stops • • square brackets • • quotation marks

14.2.2 Indicator set type

This refers to the origin of the indicator set and the auspice body responsible for defining the indicators contained within it.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users

Rules:	Note: the definitions below have not been updated since the cessation of the Council of Australian Governments (COAG) in May 2020. There are four indicator set types. Only one of the following indicator set types may be selected: 1. COAG-IGA: This includes indicators outlined in the Council of Australian government (COAG) Intergovernmental Agreement (IGA) on Federal Financial Relations relevant to national reporting on health, housing assistance and community services. The overall objective of these agreements is the improvement of the wellbeing of all Australians. Each Specific Purpose Payment (SPP) is associated with a National Agreement that contains the objectives, outcomes, outputs and indicators, and clarifies the roles and responsibilities that will guide the Commonwealth and States in the delivery of services across the relevant sectors. COAG agreed to six new National Agreements. They are the National Healthcare Agreement, National Education Agreement, National Agreement for Skills and Workforce Development, National Disability Agreement, National Affordable Housing Agreement, and the National Indigenous Reform Agreement. Agreements included under this Indicator set include: • National Affordable Housing Agreement • National Disability Agreement • National Healthcare Agreement • National Indigenous Reform Agreement 2. COAG-NP: COAG oversaw the National Partnership (NP) payments to fund specific projects and to facilitate and/or reward the states and territories that deliver on nationally-significant reforms, such as: • homelessness • remote Indigenous housing • social housing 3. Report on Government Services (ROGS): The Report on Government Services is an annual report which presents data on the equity, efficiency and cost effectiveness of government services. The Review aims to: • enable ongoing comparisons of the performance of government services and • report on government service provision reforms that governments have implemented, or that are under consideration. The Review's two main tasks are: • develop agreed national performance indicators for government services (which are published in the annual ROGS) and • analyse service provision reforms. The Review does not consider policy issues. It aims to assemble indicators of performance given the existing policy framework of governments. The performance measures established are to assist each government in the formulation of its policy objectives and priorities in the following areas: • aged care services • disability services • housing • primary and community health • protection and support services • public hospitals 4. Other national indicator set: This includes indicator sets that do not fit the criteria of the other data specification sets. This may include indicator sets such as the Children's Headline Indicator set or the Child Protection Framework.
Notes	On 29 May 2020, National Cabinet agreed to the Cessation of the Council of Australian Governments (COAG), however the definitions in this attribute have not yet been updated. Indicator sets which supersede those with the indicator set type 'COAG-IGA' or 'COAG-NG' may continue to use these values. If in doubt, choose the value 'Other.'

14.2.3 Description

A concise description of the common objectives shared by the indicators in the indicator set.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. The description should include the objectives, targets and/or outcomes of the indicator set, as applicable. 2. Express the description as complete, grammatically correct, sentences or paragraphs.

14.2.4 Indicators linked to this indicator set

The individual indicators linked to from the indicator set.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the indicator(s) which form the indicator set using the Add item button.
Notes	If applicable, the same indicator may appear in more than one indicator set. See chapter 13 'Indicator business rules.'

14.2.5 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

14.2.6 National reporting arrangement

The arrangement under which the indicator set is reportable at a national level.	
Obligation to complete:	Conditional: Complete for indicator sets that have a national reporting requirement.
Completed by:	Developer
Visibility:	All users
Rules:	1. Specify the arrangement under which the indicator set is reported nationally, such as any applicable agreements, or the organisation responsible. Examples include: 'Fourth Action Plan under the National Framework for Protecting Australia's Children 2009–2020' 'Funding agreements between the Department of Health and Aged Care and the organisations funded under the Indigenous Australians' Health Programme (IAHP)' • Australian Institute of Health and Welfare • states and territories 2. In cases where there is no national reporting specified: • no formal reporting requirements

14.2.7 Implementation start date

The date upon which the indicator set is first implemented.	
Obligation to complete:	Conditional: Complete if the indicator set has a specified implementation date.
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the implementation start date from the calendar. 2. When the implementation start date calendar is selected it automatically defaults to today's date. To specify the implementation start date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e., 5 February 2006). 3. If indicator set does not have an implementation start date, tick the Not applicable box.

14.2.8 Implementation end date

The date upon which the indicator sets implementation is completed.	
Obligation to complete:	Conditional: Complete if the indicator set has a specified implementation end date.
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the implementation end date from the calendar. 2. When the implementation end date calendar is selected it automatically defaults to today's date. To specify the implementation end date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e.,15 February 2006). 3. If the indicator set does not have an implementation end date, tick the Not applicable box

14.2.9 Comments

Any additional information that adds to the understanding of the indicator set.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.
Notes	1. Any glossary items implemented in the indicator set should be listed in 'comments' under the heading 'glossary items' with lead-in wording such as, 'Glossary terms that are relevant to this indicator set are:...' 2. Insert each glossary term by using the WYSIWIG editor toolbar. 3. Click on the METEOR drop-down menu. This brings up three options: metadata items, image and file. 4. Choose 'metadata items'. 5. Insert the glossary item ID number and click the OK button. 6. Repeat process if more items are needed.

14.2.10 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Sandard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

14.2.11 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

14.2.12 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'origin' attribute are not included in the 'reference documents' attribute and vice versa.

14.2.13 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference documents' attribute are not included in the 'origin' attribute and vice versa.

14.2.14 Unresolved issues

Comments which highlight unresolved issues for data committee or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR. 2. Unresolved issues can only be created and viewed by registrars and have been designed to assist communication between registrars.
Notes	This attribute can only be created and viewed by registrars

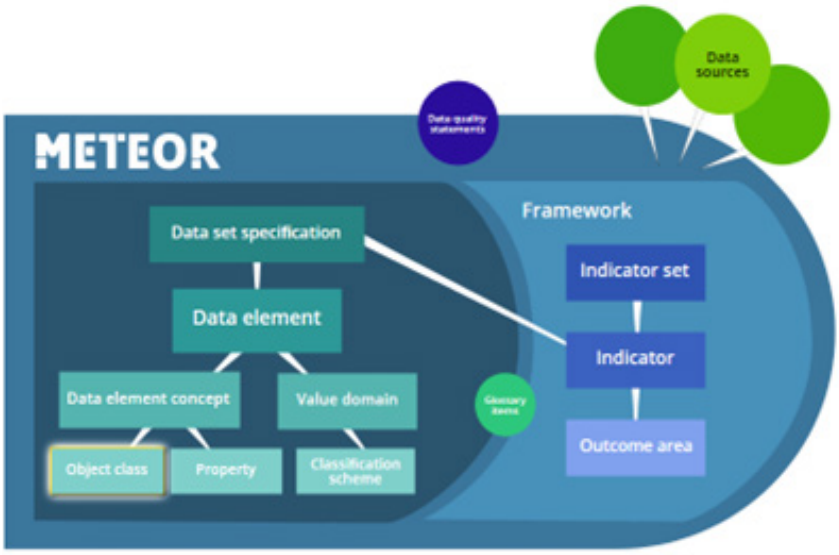
14.2.15 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars

14.2.16 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

15 Outcome area business rules



15.1 Introduction

An outcome area defines the target, standard, or the ideal result in which an indicator is being assessed against, which may be a government policy. It is used as a statistical measure to describe the progress or performance of the health or welfare system. This may be linked to a population or a number related to the provision of goods and services output.

Outcome areas should be strategic, high level and observable, expressed in clear, measurable and achievable terms. Several outcome areas may be identified for each objective.

Outcome areas have two attributes within METEOR. They are:

- indicator sets
- indicators

For example, the outcome area Indigenous people remain healthy and free of preventable disease states the target of closing the life expectancy gap for Indigenous people in Australia within a generation. It is associated with a range of indicator sets and indicators, including the indicator set National Indigenous Reform Agreement (2020) and the indicator, National Indigenous Reform Agreement: PI 03-Rates of current daily smokers, 2020.

15.1.1For registrars: Overview of outcome area attributes

Table 15.1.1.1 below provides an overview of the attributes requiring action by a registrar when an outcome area is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 15.1.1.1: Overview of outcome area attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the outcome area, defining the target of an indicator against which performance is assessed.	Mandatory	15.2.1
Description	A statement that defines the target, standard or the ideal result of an indicator, against which performance is assessed.	Mandatory	15.2.2
Relationship type	An indicator for relationships between metadata items.	Optional	15.2.3
National reporting arrangement	The arrangement under which assessment against the outcome area is reportable.	Optional	15.2.4
Implementation start date	The date upon which assessment against the outcome area is first implemented.	Optional	15.2.5
Implementation end date	The date upon which assessment against the outcome area ends.	Optional	15.2.6
Comments	Any additional information that adds to the understanding of the outcome area.	Optional	15.2.7
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	15.2.8
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	12.2.9
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	15.2.10
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	15.2.11
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	Optional	15.2.12
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	15.2.13
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	15.2.14

15.2 Attributes requiring registrar action

Attributes in the outcome area template requiring action by a registrar are described below.

15.2.1 Name

A single or multi-word designation assigned to the outcome area, defining the target of an indicator against which performance is assessed.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	The following are permitted only if they form part of the formal outcome area name specified by the responsible auspice body: 1. The outcome area name is composed of the full and formal name as specified by the auspice body responsible (e.g., the outcome area 'Families and carers are well supported'). 2. The outcome area name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the name, for proper nouns, or when necessary for an acceptable abbreviation. 3. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 4. Hyphens are permitted only when used in a compound word (e.g., 'non-admitted'). Do not leave any spaces before or after the hyphen. 5. Commas are permitted only if it is required to separate two or more terms in a name (e.g., ear, nose and throat). 6. The following are not permitted: • • full stops • • square brackets • • quotation marks

15.2.2 Description

A statement that defines the target, standard or the ideal result of an indicator, against which performance is assessed.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. Clearly define the outcome area. 2. Several outcome areas may be identified for each objective. 3. Outcomes should be strategic, high level and observable, expressed in clear, measurable and achievable terms.
Notes	Example: Indigenous children have access to affordable, quality early childhood education in the year before full-time schooling.

15.2.3 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

15.2.4 National reporting arrangement

The arrangement under which assessment against the outcome area is reportable.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Specify the arrangement under which the outcome area assessment is reported nationally, such as any applicable agreements, or the organisation responsible. Examples include: • 'Fourth Action Plan under the National Framework for Protecting Australia's Children 2009–2020' • 'Funding agreements between the Department of Health and Aged Care and the organisations funded under the Indigenous Australians' Health Programme (IAHP)' • Australian Institute of Health and Welfare • states and territories 2. In cases where there is no reporting specified: • no formal reporting requirements

15.2.5 Implementation start date

The date upon which assessment against the outcome area is first implemented.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	The default setting for this is no date, but if dates are required: 1. Select the implementation start date from the calendar. 2. When the implementation start date calendar is selected it automatically defaults to today's date. 3. An outcome area should be endorsed on a date that is before its implementation start date. 4. If outcome area does not have an implementation start date, tick the Not applicable box.

15.2.6 Implementation end date

The date upon which assessment against the outcome area ends.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Select the implementation end date from the calendar. 2. When the implementation end date calendar is selected it automatically defaults to today's date. 3. If the end date is absent, this indicates that the outcome area is still valid. 4. If outcome area does not have an implementation end date, tick the Not applicable box.

15.2.7 Comments

Any additional information that adds to the understanding of the outcome area.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	Describe any additional information that facilitates understanding of the outcome area. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

15.2.8 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to Standard when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

15.2.9 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

15.2.10 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'Origin' attribute are not included in the 'References' attribute and vice versa.

15.2.11 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'Reference' attribute are not included in the 'Origin' attribute and vice versa.

15.2.12 Unresolved issues

Comments which highlight unresolved issues for data committee or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR. 2. Unresolved issues can only be created and viewed by registrars and have been designed to assist communication between registrars.
Notes	3. This attribute can only be created and viewed by registrars.

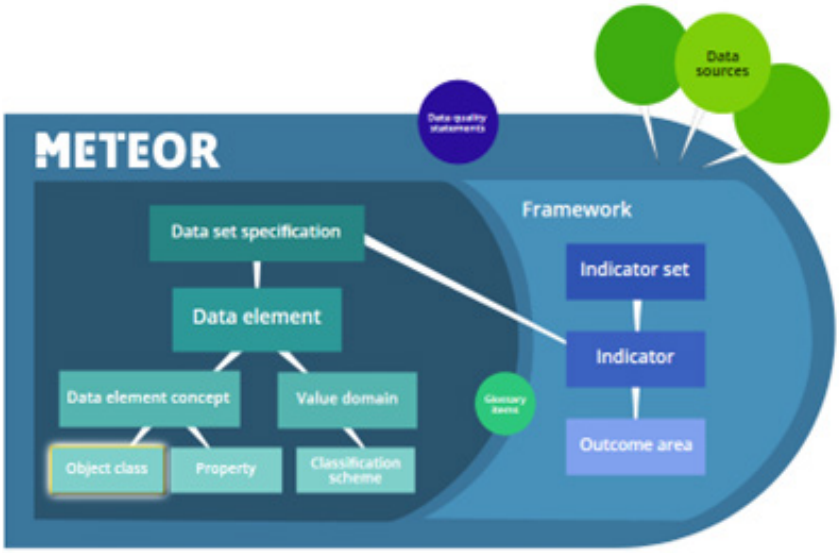
Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

16 Framework dimension business rules



16.1 Introduction

A 'framework' is a broad grouping of indicators associated with a general topic. It provides a structure to guide the understanding and evaluation of indicators against which performance is assessed. A framework may consist of tiers, dimensions and sub-dimensions to best describe a system or sector.

The goal of a framework is to look at all aspects of a broad issue, such as First Nations health, life satisfaction or environmental factors in the health of Australians. It also provides information which enables improvement in these systems and can be used for benchmarking purposes, such as system improvements and facilitate use of data at the service unit level. It reflects the service process through which service providers transform inputs into outputs and outcomes in order to achieve desired objectives.

16.1.1 For registrars: Overview of framework attributes

Table 16.1.1.1 below provides an overview of the attributes requiring action by a registrar when a framework is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 16.1.1.1: Overview of framework attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the conceptual framework against which the indicator can be reported. This may include tiers, dimensions and sub-dimensions.	Mandatory	16.2.1
Parent dimension	A concise statement that expresses the facet in which the indicator is grouped. The parent field refers to the hierarchical framework structure the 'child' dimension belongs to.	Conditional: Complete if the framework forms part of a hierarchical structure of dimensions	16.2.2
Description	A concise statement that expresses the facet in which an indicator is grouped.	Mandatory	16.2.3
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	14.2.16

16.2 Attributes requiring registrar action

Attributes in the framework template requiring action by a registrar are described below.

16.2.1 Name

A single or multi-word designation assigned to the conceptual framework against which the indicator can be reported. This may include tiers, dimensions and sub-dimensions.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	A conceptual framework provides structure to guide the understanding and evaluation of the system (health/welfare) being investigated. 1. The framework name is composed solely of the full and formal name as specified by the auspice body (e.g., 'National Health Performance Framework', or 'ISO Health Conceptual Indicators'). 2. State the full and formal name of the framework dimension, as specified by the auspice body responsible for defining the frameworks. The lowest dimensions which is relevant to the Indicator should be selected. For example, 'National Health Performance Framework' is the broadest level dimension (grandparent), followed by 'Domain 1—Health status' at the mid level dimension (parent), and 'Wellbeing' is the lowest level dimension (child). 3. A capital letter may be used for the first letter of the first word of each word for the framework name. A capital letter may be used for the first word and proper nouns for the lower level dimensions. Where the name is separated by an em dash, such as in 'Domain 1—Health status'; the first word in the second portion may also start with a capital letter. 4. The following are permitted only if they form part of the formal framework name as specified by the responsible auspice body: • comma • colon • em dash • full stop • parentheses • square and curly brackets (braces)

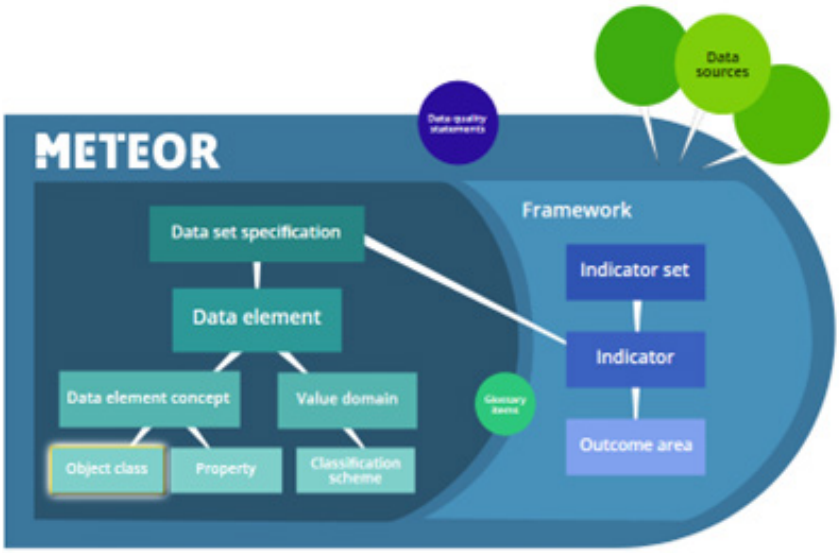
16.2.2 Parent dimension

A concise statement that expresses the facet in which the indicator is grouped. The parent field refers to the hierarchical framework structure the 'child' dimension belongs to.	
Obligation to complete:	Conditional: Complete if the framework forms part of a hierarchical structure of dimensions
Completed by:	Registrar
Visibility:	All users
Rules:	1. Specify the parent framework dimension under which the current dimensions sits hierarchically. 2. Use the Choose button to specify the relevant dimensions and/or sub-dimensions. 3. Click the *Add* button to load chosen dimensions and/or sub-dimensions..

16.2.3 Description

A concise statement that expresses the facet in which an indicator is grouped.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	Provide a concise description of the framework, including its objectives and any relevant information about its development.

17 Data quality statement business rules



17.1 Introduction

A data quality statement (also known as a DQS) provides information on the suitability of collected data for its original intended use and potential re-use. Data quality statements help users understand the important data limitations and to guide users to make informed judgements about the use of data.

The fields in this item are based on the ABS Data Quality Framework (ABS DQF). The main dimensions are:

- data quality statement summary
- institutional environment
- relevance
- timeliness
- accessibility
- interpretability
- relevance
- accuracy
- coherence

AIHW policy requires that a DQS be created (at collection level) for those collections for which the AIHW acts as Data Custodian. DQSs are also recommended for linked data sets (that do not form an AIHW collection in their own right and don't already have a DQS) and for indicators that are not sufficiently served by the DQS of the underlying collection.

The DQS for a collection, or a link to the DQS, should be included in all AIHW releases which draw on that collection. Each DQS should be period-specific and one should be created for each reference period. When the data from the collection, or analyses of the data, are made available outside of the AIHW, the DQS should be placed on METEOR.

In METEOR, there are two types of data quality statements: one for data sources and another for indicators. There are differing formats for the naming of each type of data quality statement (read 17.2.1 for more detail).

For detailed policy guidelines, read the AIHW Data Quality Statement and policy guidelines. This document is available to AIHW staff via the intranet.

17.1.1 For developers: Overview of data quality statement attributes

Table 17.1.1.1 below provides an overview of the attributes requiring action by a developer when a data quality statement is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 17.1.1.1: Overview of data quality statement attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the data quality statement. (see 17.2.1 for rules for indicators and data sources)	Mandatory	17.2.1
Synonymous name(s)	One or more synonyms for the data quality statement name within the context of the metadata item.	Optional	17.2.2
Data quality statement summary	A concise summary of the key issues to be aware of when using the data.	Mandatory	17.2.3
Institutional environment	Information about the origin of the data collection and the arrangements under which the collection is governed and administered. This enables an assessment of the surrounding context, which may influence the validity, reliability or appropriateness of the data.	Mandatory	17.2.4
Timeliness	The timeliness of the data. The delay to which the information correctly describes the phenomena being measured.	Mandatory	17.2.5
Accessibility	The ease with which information and data can be identified and accessed.	Mandatory	17.2.6
Interpretability	The availability of information to help provide insight into the data or assist interpretation.	Mandatory	17.2.7
Relevance	The degree to which the information meets the needs of users. How well the data meet the agreed purpose of the data collection in terms of concepts measured and the population represented.	Mandatory	17.2.8
Accuracy	The degree to which the data correctly describes the phenomena being measured.	Mandatory	17.2.9
Coherence	The internal consistency pf a statistical collection, product or release, as well as its comparability with other sources of information, within a broad framework and over time.	Mandatory	17.2.10
Implementation start date	The date upon which the collection of data for the data quality statement was first implemented.	Optional	17.2.11

Attribute	Definition	Obligation to complete	Section in this Chapter
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Optional	17.2.12
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	* Obligation to be completed by a registrar	17.2.13
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	17.2.14
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	17.2.15
Relationship type	An indicator for relationships between metadata items.	Optional	17.2.16
Unresolved issues	Comments which highlight unresolved issues for data committee or registrar consideration.	* Obligation to be completed by a registrar	17.2.17
Submitting organisation contact details	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	* Obligation to be completed by a registrar	17.2.18
Steward contact details	The details of at least one contact person for each listed submitting organisation	* Obligation to be completed by a registrar	17.2.19

17.1.2 For registrars: Overview of data quality statement attributes

Table 17.1.2.1 below provides an overview of the attributes requiring action by a registrar when a data quality statement is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 17.1.2.1: Overview of data quality statement attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the conceptual framework against which the indicator can be reported. This may include tiers, dimensions and sub-dimensions.	Mandatory	16.2.1
Parent dimension	A concise statement that expresses the facet in which the indicator is grouped. The parent field refers to the hierarchical framework structure the 'child' dimension belongs to.	Conditional: Complete if the framework forms part of a hierarchical structure of dimensions	16.2.2
Description	A concise statement that expresses the facet in which an indicator is grouped.	Mandatory	16.2.3
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	14.2.16

17.2 Attributes requiring developer and registrar action

Attributes in the data quality statement template requiring action by a registrar are described below.

17.2.1 Name

A single or multi-word designation assigned to the data quality statement.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Data quality statement for data source — name components and arrangement:	Collection name + year + colon + name of data source + comma + year data source was last updated + semi colon + the phrase 'Quality Statement'. For example: Perinatal NMDS 2010–2011: National Perinatal Data Collection, 2010; Quality Statement. Note: If the collection and data source are one in the same, then begin name at 'Name of data source'. For example: Public Housing Data Collection, 2018–19; Quality Statement
Data quality statement for indicator — name components and arrangement:	Agreement name + colon + indicator reference number + endash + formal indicator name + comma + year indicator was last updated + semi colon + the phrase 'Quality Statement'. For example: National Healthcare Agreement: P1–Babies born with low birth weight, 2010; Quality Statement
Data quality statement for data source rules:	1. Capital letters should be used for the first letter of each word in the collection name and data source name. 2. Capital letters should be used for the words 'Quality Statement' at the end of the name. 3. The name should only use abbreviations that are commonly understood (e.g., the use of 'NMDS' in the name instead of 'National minimum data set'). If an abbreviation (such as an acronym) is used in a name, it must be spelt out in full followed by the abbreviation in parenthesis when term is next used in the main body of the data quality statement. 4. A colon is only permitted to separate collection name and data source name. 5. Commas are only permitted to separate the data source name from the year the data source was last updated, or if required to separate two or more terms in a name (e.g., 'ear, nose and throat'). 6. A semi-colon is only permitted to separate the year the data source was last updated and the suffix phrase 'Quality Statement'. 7. En dashes are only permitted if required for use in a year span (e.g., 2018–19) or if they form part of the formal collection or data source name. 8. Full stops are not permitted unless they form part of the formal collection or data source name. 9. Parentheses and square and curly brackets (braces) are not permitted unless they form part of the formal collection or data source name. 10. Quotation marks are not permitted.

Data quality statement for indicator rules:	1. Capital letters should be used for the first letter of each word of the indicator set name, and the first letter of the formal indicator name. 2. Capital letters should be used for the indicator reference suffix (e.g., PI 15) and the phrase 'Quality Statement' at the end of the name. 3. A colon is only permitted to separate indicator set name and indicator reference number. 4. An en dash is only permitted to separate the indicator reference number from the indicator name, or if part of the the formal indicator set name or the formal indicator name as specified by the responsible auspice body 5. A comma is only permitted to separate the indicator name from the year the indicator was last updated, or if part of the formal indicator set name or the formal indicator name as specified by the responsible auspice body. 6. A semi-colon is only permitted to separate the year the indicator was last updated and the phrase 'Quality Statement'. 7. En dashes are only permitted if required for use in a year span (e.g., 2018–19), or if they form part of the formal indicator set name or the formal indicator name as specified by the responsible auspice body. 8. Full stops are not permitted unless they form part of the formal indicator set name or the formal indicator name as specified by the responsible auspice body. 9. Parentheses are not permitted unless they are a part of the formal Indicator set name or the formal indicator name as specified by the responsible auspice body. 10. Square and curly brackets (braces) are not permitted unless they are a part of the formal Indicator set name or the formal indicator name as specified by the responsible auspice body. 11. Quotation marks are not permitted.

17.2.2 Synonymous name(s)

One of more synonyms for the metadata item name within the context of the given item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. List any synonyms for the metadata item name which may be used to identify the item. 2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s). 3. Separate each synonymous name with a semi-colon and space. 4. End the list of synonymous names without a full stop.

17.2.3 Data quality statement summary

A concise summary of the key issues to be aware of when using the data.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Summary should include, where relevant: • brief description of the data source • main issues affecting accuracy • response rate for sample surveys • major changes since previous cycle affecting consistency • main classifications used.
Notes	Information in the summary should be kept brief. It should also be included, and expanded upon, in the relevant data quality statement dimension (i.e. the relevant attribute field in the METEOR data quality statement template).

17.2.4 Institutional environment

Information about the origin of the data collection and the arrangements under which the collection is governed and administered.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	1. Include relevant information about the origin of the data collection and the arrangements under which the collection is governed and administered. 2. Include embedded hyperlink(s) to any legislation or agreements relevant to the data collection arrangements. (AIHW data quality statement developers see note 1 below).
Notes	1. Developers of AIHW data quality statements should refer to 'Data Quality Statement (DQS) policy and guidelines' (2024) for standard wording to include. 2. This attribute should include elements such as: relevant legislation (e.g., AIHW Act, Privacy Act), and embedded links to the AIHW's 'About us', 'Our governance' and 'Our role and strategic goals' pages. 3. The institutional environment enables an assessment of the surrounding context, which may influence the validity, reliability or appropriateness of the data.

17.2.5 Timeliness

The timeliness of the data and the delay to which the information correctly describes the phenomena being measured.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	4. Aspects of timeliness should include, where relevant: • the reference period (to which the data pertain) • the frequency with which data are provided • the frequency of publication of data • the agreed date for provision of initial data • the actual date at which all necessary data first became available • the intended first release of a publication/report • the actual first release of data from the collection.
Notes	Timeliness is an important consideration in assessing the quality and usefulness of data.

17.2.6 Accessibility

The ease with which information and data can be identified and accessed.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Aspects of accessibility should include, where relevant: • how to access relevant publications and reports, including hotlinks to website • how to access relevant data sets, including hotlinks • how to access data which is not available online or in reports • how to seek access to very detailed data or to unit record data.
Notes	Accessibility is a key component of quality as it relates directly to the capacity of users to identify the availability of relevant information, and then to access it in a convenient and suitable manner.

17.2.7 Interpretability

The availability of information to help provide insight into the data or assist interpretation.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Aspects of interpretability should include, where relevant: • how to access information about the collection, (metadata, concepts, classifications, etc.), including embedded links • how to access additional information available in publications and reports, including embedded links.
Notes	1. Interpretability is an important component of quality as it enables the information to be understood and utilised appropriately. 2. Information on interpretability should point users towards other documentation to help understand the data and also illuminate any key variables which are difficult to interpret. 3. Information available that might assist interpretation may include information about variables used, metadata relating to the collection, concepts and classifications.

17.2.8 Relevance

The degree to which the information and data meets the needs of users in terms of concepts measured and the population represented.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Aspects of relevance should include, where relevant: 1. Scope and coverage: the purpose or aim for collecting the information, including identification of the target population, discussion of whom the data represent, who is excluded and whether there are any impacts or biases caused by exclusion of particular events, entities, people, areas or groups. 2. Reference period: this refers to the period for which the data were collected (e.g., the September–December quarter of the 2021–22 financial year), as well as whether there were any exceptions to the collection period (e.g., a jurisdiction not providing data for the full reference period). 3. Geographic detail: information about the level of geographical detail available for the data (e.g., postcode area, Statistical Area Level), and the actual geographic regions for which reliable data are available. 4. If not all states and territories provided data, this should be noted. 5. Statistical standards: which standards have been used in the collection and the extent to which the classifications and standards used reflect the target concepts to be measured or the population of interest. 6. Availability (or otherwise) of information on Indigenous identification. 7. Type of estimates available: this refers to the nature of the statistics produced, which could be index numbers, trend estimates, seasonally adjusted data, or original unadjusted data. 8. Other cautions: information about any other relevant issue or caution that should be exercised in the use of the data.
Notes	Enough information needs to be provided to enable each user to make an assessment of whether the data collection addresses the issues most important to them. Key information should be provided about the broad definitional and coverage aspects of the data.

17.2.9 Accuracy

The degree to which the data correctly describe the phenomena being measured.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Aspects of accuracy should include, where relevant: 1. The role of data providers and the agency in ensuring quality. 2. Coverage error: this occurs when a unit in the data is incorrectly excluded or included, or is duplicated in the data. 3. Response error: this refers to a type of error caused by records being intentionally or accidentally inaccurate or incomplete. This occurs not only in statistical surveys, but also in administrative data collection where forms, or concepts on forms, are not well understood by respondents. 4. Non-response error: this refers to incomplete information for a record (e.g., when some data are missing). The use of any imputation strategies should be noted. 5. Sample error: where sampling is used, the impact of sample error can be assessed using information about the sample design, the total sample size and the size of the sample in key output levels. For sample surveys, response rates should be provided. 6. Other sources of errors: any other serious accuracy problems with the statistics should be considered. These may include errors caused by incorrect processing of data (e.g., erroneous data entry or recognition), rounding errors involved during collection, processing or dissemination, and other quality assurance processes. 7. The quality of Indigenous status data should be noted, especially when they are only of sufficient quality for statistical reporting purposes for selected jurisdictions. 8. Revisions to data: the extent to which the data are subject to revision or correction, in light of new information or following rectification of errors in processing or estimation, and the time frame in which revisions are produced.
Notes	1. Accuracy refers to the degree to which the data correctly describe the phenomenon they were designed to measure. This is an important component of quality as it relates to how well the data portray reality, which has clear implications for how useful and meaningful the data will be for interpretation or further analysis. In particular, when using administrative data, it is important to remember that statistical outputs for analysis are generally not the primary reason for the collection of the data. 2. Accuracy should be assessed in terms of the major sources of errors that potentially cause inaccuracy. Any factors which could impact on the overall validity of the information for users should be described in data quality statements.

17.2.10 Coherence

The internal consistency of a statistical collection, product or release, as well as its comparability with other sources of information, within a broad analytical framework and over time.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	Aspects of coherence should include, where relevant: 1. Changes to data items: to what extent a long time series of particular data items might be available, or whether significant changes have occurred to the way that data are collected. 2. Comparison across data items: this refers to the capacity to be able to make meaningful comparisons across multiple data items within the same collection. The ability to make comparisons may be affected if there have been significant changes in collection, processing or estimation methodology which might have occurred across multiple items within a collection. 3. Comparison with previous releases: the extent to which there have been significant changes in collection, processing or estimation methodology in this release compared with previous releases, or any 'real world' events which have impacted on the data since the previous release. 4. Comparison with other products available: this refers to whether there are any other data sources with which a particular series has been compared, and whether these two sources tell the same story. This aspect may also include identification of any other key data sources with which the data cannot be compared, and the reasons for this, such as differences in scope or definitions.
Notes	The use of standard concepts, classifications and target populations promotes coherence, as does the use of common methodology across collections. It is important to note that coherence does not necessarily imply full numerical consistency, rather consistency in methods and collection standards.

17.2.11 Implementation start date

The date upon which the collection of data for the quality statement was first implemented.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	1. Select the implementation start date from the calendar. 2. When the implementation start date calendar is selected it automatically defaults to today's date. To specify the implementation start date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e., 15 February 2006). 3. If the data quality statement does not have an implementation start date, tick the Not applicable box.
Notes	4. Although not mandatory to put an implementation start date, it is considered best practice to do so.

17.2.12 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	For each organisation responsible for the submission of the metadata item: 1. State the complete and official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on the arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

17.2.13 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	All users
Rules:	1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title. 6. To assign the steward organisation: Click the Choose button which will bring up a drop-down menu of all stewards. Select the relevant steward from the list and click Add.
Notes	If the organisation is not present in the list, create a new steward using the complete and official organisation title for the organisation.

17.2.14 Origin

A Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without full stop).
Notes	References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

17.2.15 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference documents' attribute are not included in the 'origin' attribute and vice versa.

17.2.16 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users

Rules:	1. Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). 2. Related metadata relationships should not duplicate information stored or available elsewhere in METEOR. For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). 3. A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. 4. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: • select a value from the 'relationship type' drop-down list • click the Add button to open the metadata item browser • select the metadata item and click the Add button • select or enter the item you wish to create a relationship to and click the Add button • the relationship will then be listed on the metadata item creation window. The relationship can be deleted by clicking on the Cancel button.
Notes	See Appendix F for more detailed information on valid relationship types and their associated meanings.

17.2.17 Unresolved issues

Comments which highlight unresolved issues for data committee or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR. 2. Unresolved issues can only be created and viewed by registrars and have been designed to assist communication between registrars.
Notes	This attribute can only be created and viewed by registrars.

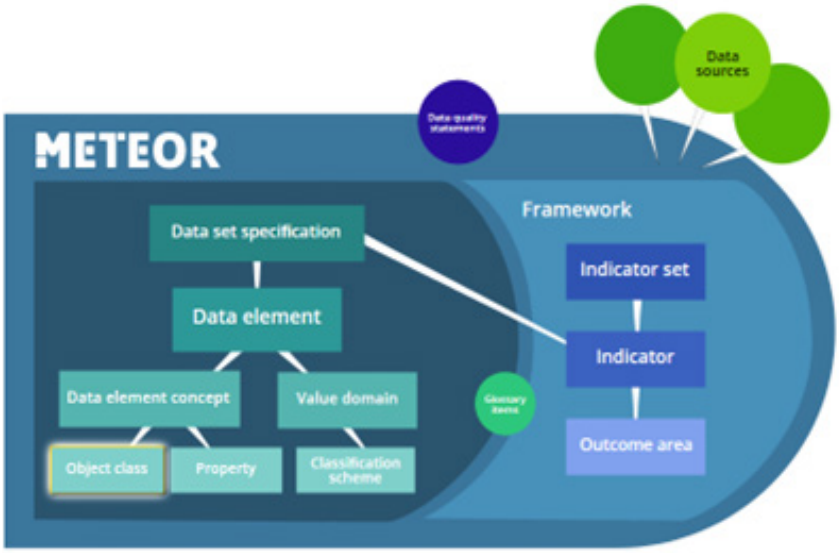
17.2.18 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

17.2.19 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from the steward contact person must be received before any contact information is stored within METEOR. 2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute can only be created and viewed by registrars.

18 Data source business rules



18.1 Introduction

A data source is a specific data set, database or reference from where data are sourced. Data sources are listed for indicators, specifying where the data for that particular indicator has come from. An indicator may have several data sources. Linking a data source with an indicator provides more robust information, which is especially important for reports and research. An example of a data source is the ABS 2017–18 National Health Survey (NHS).

Where a data source is used multiple times (i.e. used in both the numerator and denominator) it will only be displayed once.

If you are developing metadata, you don't have to specify a data source in an indicator, but it is recommended.

N.B. Data sources in METEOR can only be created by a registrar, and do not go through a formal registration process. Once created, data sources are immediately publicly visible.

Data sources in METEOR reflect the most recent status of the relevant data source, and may be amended over time (i.e. they do not use superseding relationships like other metadata.) Where the scope of a data source has changed significantly over time, information to this effect should be included in a Comment.

18.1.1 For registrars: Overview of data source attributes

Table 18.1.1.1 below provides an overview of the attributes requiring action by a registrar when a data source is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 18.1.1.1: Overview of data source attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the data source.	Mandatory	18.2.1
Description	A concise description of the data source.	Mandatory	18.2.2
Link to data source	Hyperlink or address of the data source.	Conditional completion: complete for data sources that have a clearly described electronic link.	18.2.3
Data quality statement	A statement of multiple quality dimensions for the purpose of assessing the quality of the data for reporting against an Indicator.	Optional	18.2.4
National reporting arrangement	The arrangement under which the data source is reportable.	Optional	18.2.5
Frequency	The frequency at which a data collection is conducted.	Conditional completion: complete for data sources that have a clearly described frequency of collection.	18.2.6
Implementation start date	The date upon which the collection of data for this specific version of the data set was first implemented.	Optional	18.2.7
Implementation end date	The date upon which the collection of data for this specific version of the data set was completed.	Optional	18.2.8
Comments	Any additional information that adds to the understanding of the data source.	Optional	18.2.9
Data custodian	A person or organisation that ensures that data holdings are properly documented, maintained, controlled and accessed.	Mandatory	18.2.10
Data custodian contact details	The primary contact person's name and organisation, and contact details such as postal address, email address, website or telephone number.	Optional	18.2.11
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	18.2.12
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation.	Optional	18.2.13

Attribute	Definition	Obligation to complete	Section in this Chapter
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	18.2.14
Reference documents	Significant documents that contributed to the development of the metadata item which were not the direct source for the metadata content.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	18.2.15

18.2 Attributes requiring registrar action

Attributes in the data source template requiring action by a registrar are described below.

18.2.1 Name

A single or multi-word designation assigned to the data source.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. State the full and formal name of the data source, for example, National Prisoner Health Data Collection, as specified by the auspice body responsible for defining the data source. 2. A data source name must begin with a capital letter. The use of capital letters is used for: • the first letter of each word • for proper nouns • when necessary for an acceptable abbreviation or acronym.
Notes	Where the name of a data source has changed over time, use the current name. Information about any changes to the name of the data source should be included in a Comment.

18.2.2 Description

A concise description of the data source.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	Provide a concise description of the data source, including any relevant background information. Aspects to consider include the data source's scope, objectives, data collection methods, etc.

18.2.3 Link to data source

Hyperlink or address of the data source.	
Obligation to complete:	Conditional completion: complete for data sources that have a clearly described electronic link.
Completed by:	Registrar
Visibility:	All users
Rules:	1. Use the most recent version of data source available. 2. Insert hyperlinks using the editor toolbar by clicking on the 'insert/edit link' option.

18.2.4 Data quality statement

A statement of multiple quality dimensions for the purpose of assessing the quality of the data collected in the data source.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	3. To add a data quality statement: • click the Choose button • enter the Item ID or A–Z listing for relevant statement • click the Add button.
Notes	See chapter 17 'Data quality statement business rules.'

18.2.5 National reporting arrangement

The arrangement under which the data source is reportable.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	Provide a concise description of any national reporting arrangements. Aspects to consider include the organisation(s) responsible, reporting periods, etc.

18.2.6 Frequency

The frequency at which data collection is conducted.	
Obligation to complete:	Conditional completion: complete for data sources that have a clearly described frequency of collection.
Completed by:	Registrar
Visibility:	All users
Rules:	State how frequently the data source is collected, e.g., 'quarterly'; 'annual data collection.'

18.2.7 Implementation start date

The date upon which the collection of data for this specific version of the data source was first implemented.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	1. Select the implementation start date from the calendar. 2. When the implementation start date calendar is selected it automatically defaults to today's date. To specify the implementation start date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e., 15 February 2006). 3. If the data source does not have an implementation start date, tick the Not applicable box.

18.2.8 Implementation end date

The date upon which the collection of data for this specific version of the data source was completed.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	1. Select the implementation end date from the calendar. 2. When the implementation end date calendar is selected it automatically defaults to today's date. 1. To specify the implementation end date, select the relevant day, month and year from the drop-down date selector to indicate a fully formed date (i.e., 15 February 2006). 3. If the end date is absent, this indicates that data source is still valid. 4. If data source does not have an implementation end date, tick the Not applicable box

18.2.9 Comments

A person or organisation that ensures that data holdings are properly documented, maintained, controlled and accessed.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	1. A data source may be associated with only one data custodian. 2. State the complete and official organisation title for the data custodian (including a committee where necessary). 3. Abbreviations and symbols should only be used when they are part of the official organisation title.

18.2.10 Data custodian

The primary contact person's name and organisation, and avenue of contact such as postal address, email address, website or telephone number.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	For each data custodian contact, list their name, position title, organisational unit, telephone number and email address.

18.2.11 Data custodian contact details

The primary contact person's name and organisation, and avenue of contact such as postal address, email address, website or telephone number.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	For each data custodian contact, list their name, position title, organisational unit, telephone number and email address.

18.2.12 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Registrar
Visibility:	All users
Rules:	For each organisation responsible for the submission of the metadata item: 1. State the complete and official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	1. Click on the arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to *Standard* when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

18.2.13 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR. 2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.

18.2.14 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	
Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Registrar
Visibility:	All users
Rules:	1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. List the full reference for any in-text references cited in the body of that metadata item. 3. Conclude and separate each reference with a new line (without a full stop).
Notes	1. References included in the 'origin' attribute are not included in the 'references' attribute and vice versa.

18.2.15 Reference documents

Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	
Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Registrar
Visibility:	All users
Rules:	1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'. 2. Conclude and separate each reference with a new line (without a full stop).
Notes	Notes: References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

Appendix A: Use of abbreviations in name and definition/description attributes

It is important to note that an abbreviation that has a specific meaning in one environment, may have a different meaning in another environment. This can create confusion and misunderstandings and lead to the misinterpretation of data.

For this reason abbreviations should be used with care, especially in names or definitions/ descriptions.

Name attribute

Name rule:	A name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item.
Use of abbreviations in a name:	Commonly understood or widely accepted abbreviations include those that are more readily understood than the full form of a complex term and have been adopted as a term in their own right, such as 'radar', 'laser' or 'pH'. If an abbreviation (such as an acronym) is used in a name, it should be spelt out in full followed by the abbreviation in parenthesis when the term is next used (generally this will be in the definition). For example: Name: AUDIT frequency alcohol consumption Definition: The frequency of alcohol consumption as measured by the Alcohol Use Disorders Identification Test (AUDIT).

Definition/description attribute

Definition rule:	A definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item.
Use of abbreviations in a definition or description:	Commonly understood or widely accepted abbreviations in a definition include those such as 'i.e.' (for 'that is') and 'e.g.' (for 'for example') and the like. Also included are abbreviations that are more readily understood than the full form of a complex term and have been adopted as terms in their own right, such as 'radar', 'laser' or 'pH'. When an abbreviation (such as an acronym) is used in a definition or description, it should be spelt out in full on its first occurrence, followed by the abbreviation in parenthesis; for example: Definition: A National Disability Agreement (NDA) service user is a person with a disability who received one or more NDA-funded services during the reporting period. An exception is in the case of a concept that is only ever used within the context in which the abbreviation is commonly understood. For example, the abbreviation 'ACE inhibitor' in a definition would be understood by persons collecting data in a pharmacological or acute coronary care setting.

For the use of abbreviations in attributes other than 'name' or 'definition', see Appendix B 'Formatting and stylistic guidelines'.

Appendix B: Formatting and stylistic guidelines

This appendix outlines the formatting and stylistic guidelines that apply to metadata content in METEOR. The guidelines listed in Table B1 below should be used in order to enable metadata standards in METEOR to be presented in a consistent manner across the system. This will result in data elements in a data set specification, or indicators in an indicator set, having similar formatting applied to them, regardless of who they are developed by.

Default METEOR font

The default (normal) font automatically applied to text in METEOR is Open Sans. This font complies with the Web Content Accessibility Guidelines (WCAG) 2.0.

Inputting content into metadata attributes

Depending on the metadata attribute being actioned, there are three ways of inputting content into METEOR:

1. For some attributes, such as 'name', 'short name' and 'synonymous name(s)', text is typed into a plain text field that does not have any formatting or stylistic options.
2. For attributes such as 'definition', 'context' , 'guide for use', 'collection methods', 'comments' , 'origin', 'reference documents', 'unresolved issues', 'submitting organisation contact details' and 'steward contact details', there is an editor toolbar (see Figure B1 below) with various formatting and stylistic options for text (e.g., bold and italics). Other formatting functions (e.g., insert a table, image or glossary item) can be accessed via the drop-down menus.
3. It is also possible to copy/paste text into an attribute from another source, such as a Word document. It is recommended, after pasting, to select the inserted text and use the 'clear formatting' tool (represented by a capital T and a subscript x) to remove unwanted formatting and convert the text to the default font.

Figure B1: Editor toolbar in METEOR

Source: METEOR

Table B1: Formatting and stylistic guidelines (in alphabetical order)

Formatting/stylistic item	Guidelines
Abbreviations	For the use of abbreviations (including acronyms and initialisms) in the name or definition (or description) of a metadata item, see Appendix A 'Use of abbreviations in name and definition attributes'. Where an abbreviation (such as an acronym) is used for the first time in an attribute other than 'name' or 'definition', spell out the term in full followed by the abbreviation in parentheses. For example: Body Mass Index (BMI) categories to be reported: obese, overweight, normal, underweight. Commonly understood abbreviations may be used such as: 'i.e.' (for 'that is') and 'e.g.' (for 'for example') and the like. When using abbreviations such as these the abbreviation and its accompanying text should appear in parentheses; for example: '... show details of how often each person works (e.g., a psychologist visits the service one morning session per month).' Abbreviations that are more readily understood than the full form of a complex term that have been adopted as terms in their own right, such as 'radar' (for 'radio detecting and ranging') and 'laser' for (for 'light amplification by stimulated emission of radiation') and the like. Spell out the names of states and territories in full, except in figures or tables where the shortened forms may be used and when towns or smaller areas are mentioned followed by the state/territory abbreviation in parentheses (e.g., Mullumbimby (NSW)). The recommended shortened forms for states and territories are: NSW, Vic, Qld, WA, SA, Tas, ACT, and NT.
Acronyms and initialisms	See 'abbreviations'.
Alignment	Sentences or paragraphs are left-aligned and not indented. Right or centre alignment of text is not recommended
Bol	

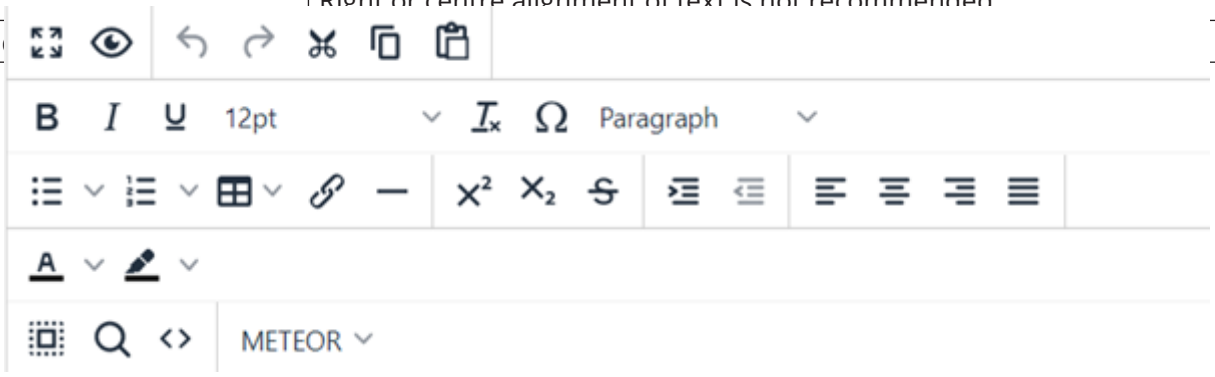


Table B1: Formatting and stylistic guidelines (in alphabetical order)

Bulleted lists	Bulleted or numbered lists can be inserted via the editor toolbar in METEOR. A numbered list should be used when it is necessary to indicate priority, the chronological flow of the series, or where individual items may be required to be identified for later reference. Introduce each series of bulleted or numbered lists with a full sentence or sentence fragment (i.e. part of a sentence). Capitalisation of bulleted or numbered lists follows normal sentence rules. If all points in the list are full sentences, begin each point with a capital letter. If each point in the list consists of, or begins with, a sentence fragment, no initial capital is used. Use a full stop only at the end of list items which are full sentences, and at the end of the last item within the series.
Capitalisation	Use minimal capitalisation except for proper nouns.
Figures	Figures are permitted in the body of a metadata item, if required. See 'images' for further details.
Font	The default (normal) font in METEOR is Open Sans 12.5. When text is copy/pasted into METEOR from another source, use the 'clear formatting' tool (represented by a capital T and a subscript x) to remove unwanted formatting and convert the text to the default font.
Formulae, symbols and other special characters	Special characters can be inserted via the editor toolbar in METEOR. If a complex formula is required, it may be inserted as an image (see the help topic How to add formulae to metadata items for further information). Separate units of measure within a ratio and the components of a fraction or date with a slash (e.g., 60 km/h, 4 ½ centimetres, 20/12/2018. Express alternatives and compound terms using a slash where required (e.g., January/February, not January and/or February). For time periods use an endash (e.g., 2008–2009, not 2008 to 2009). (A quick way to insert an endash is to use the Windows keyboard shortcut: Alt + 0150)
Glossary items	Insert glossary items using the editor toolbar by clicking on the 'metadata items' option. Do not insert as simple hyperlinks, as these will not create a 'mouseover' displaying the definition, and 'metadata items which use this glossary item' links. See also chapter 11 'Glossary item business rules.'
Headings	Headings within metadata content are in bold font (Open Sans 12.5); for example: Health care services

Table B1: Formatting and stylistic guidelines (in alphabetical order)

Horizontal line	The use of a horizontal line within the body of a metadata item is not recommended.
Hyperlinks	Insert hyperlinks using the editor toolbar by clicking on the 'insert/edit link' option.
Images	Images of figures, diagrams, complex tables or formulae are permitted in the body of a metadata item, if required. Insert images using the editor toolbar by clicking the METEOR button and choosing 'Image' from the drop-down options. (See also the help topic How to add formulae to metadata items).
Indentation	See 'alignment'.
In-text citations	See Appendix C for the formatting of in-text citations. Note: The documentary-note system with footnotes is not permitted in METEOR.
Italics	Italics is used within the main body of a metadata item for titles of publications, legislation, legal cases, and terms to which emphasis is being applied. When a publication is included in either the 'origin' or 'reference documents' attributes, the publication title is not italicised.
Links	See 'hyperlinks'.
Numbered lists	See 'bulleted lists'.
Numbers	Express numbers as numerals, not words, except when a sentence begins with a number. In text and tables, express a number with a value of less than one by placing a zero (0) in front of the decimal point (e.g., 0.5 not .5) For time periods use an endash (e.g., 2018–2019). (A quick way to insert an endash is to use the Windows keyboard shortcut: Alt + 0150) Use numerals for an indicator reference number (e.g., PI 10).
Percentage	Use '%' in preference to 'per cent' in text and tables, including in captions. Use 'per cent' on figure axis labels. Use 'per cent' where the number must be spelt out in text at the beginning of a sentence or in the name of a metadata item (e.g., in an indicator name). Use 'percentage' when using as a noun; for example, 'the percentage of males'.
Quotation marks	Enclose quotations within single, rather than double, quotation marks.
Reference list	See Appendix C for the formatting of references.

Table B1: Formatting and stylistic guidelines (in alphabetical order)

Spelling	Use Australian English except for: the name of an organisation that has a non-Australian English spelling (e.g., World Health Organization spelt with a 'z' instead of an 's' in 'Organization'). In such cases, spell the name of the organisation as the organisation itself spells it terms that have recommended spellings (e.g., use the US spelling for 'fetus').
Tables	Tables are permitted within the body of a metadata, if required. A table may be inserted via the editor toolbar or as an image if a detailed or complex table is required (see 'images'). Place a caption above the table, left aligned in bold. Minimal capitalisation applies to table captions. Care should be taken when copy/pasting tables from Word, as this may introduce unwanted formatting.
Underlining	Avoid underlining text as it may be mistaken for a hyperlink. Instead of underlining a word for emphasis, use italics.

Appendix C: Referencing guidelines

This appendix outlines the guidelines for the formatting of references within metadata items in METEOR. The author–date referencing style used in METEOR is based on the Australian Government Style Manual. We suggest you follow the guidelines in Table C1 to enable metadata standards in METEOR to be presented in a consistent manner across the system. This will result in data elements in a data set specification, or indicators in an indicator set, having their references formatted consistently, regardless of who they are developed by.

Table C1: Referencing guidelines

Reference type	Guidelines
Footnotes	The documentary-note system with footnotes is not permitted in METEOR.
Journal articles	Author's last name + initial+ year of publication (in parentheses) + article title (in single quotation marks) + comma + journal title (in italics) + comma + volume number + colon+ page number/range + full stop + comma + doi + colon + doi number + full stop. For example: Rose G (1984). 'International trends in cardiovascular disease: implications for prevention and treatment', Australia New Zealand Journal of Medicine 14:375–80, doi:10.1111/j.1445-5994.1984.tb03599.x.

Reference type	Guidelines
In-text (general)	Use the author–date system for in-text citations. Put the author's name and year of publication. The author's name can be part of a sentence or it can be included in parentheses with the year of publication. Use only the author's family name or the shortened form of an organisation's name (In the reference list, use the shortened form followed by spelt-out form in parentheses). Example of shortened form: AIHW (2022) reports that... Always include the year in parentheses. Don't separate the name and date with a comma. Examples: AIHW (2022) redeveloped METEOR using a collaboration of in-house development and resources. OR METEOR was developed collaboratively using in-house development and resources (AIHW 2022). In multiple-authored references, include both names. Example: MIMCU and B&D (2022) collaborated on the redevelopment of METEOR. Example for more than 3 authors: Smith et al. (2022) reported on updated numbers for public hospitals beds. Provide page number(s) only when the work has page numbers and if including a direct quotation. If applicable use a colon between date and page number(s). Examples: The FAQs page is a good starting point to learn about how to use METEOR (AIHW 2022:5–12). OR According to AIHW, METEOR's FAQs page is a good way to learn about the website (2022:5–12). When citing a classification scheme or other document which is better known by a short title, use the short title for the in-text citation. For example, the in-text citation for the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification Twelfth Edition is: ICD-10-AM Twelfth Edition. Enclose quotations within single, rather than double quotation marks. See 'Legislation' for in-text references to legislation. See also 'Multiple publication/authors' for in-text references to multiple publications by the same author, or a publication with multiple authors. See 'Organisations' for in-text references to organisations. Notes: 1. In-text references to content outside of METEOR should only be used when ascribing a statement to its source and where such statements support, rather than constitute, metadata content. For example, an in-text reference may be required to support content about the justification for a particular assessment criteria in a data element.

Reference type	Guidelines
Legislation	The first in-text reference to a piece of legislation should cite the short, formal title of the legislation exactly, in full, and in italics, followed by the jurisdiction (abbreviated without italics and enclosed in parentheses) if it is necessary to specify the relevant jurisdiction. For example: The Privacy Act 1988 (Cth) .... For subsequent references to the same piece of legislation, the title is not italicised and the date is omitted. For example: 'The Privacy Act ...'. An in-text reference to legislation is sufficient; do not reference legislation in full.
Multiple publications/ authors (in-text and reference list)	If more than one publication is cited that was published in given year by the same author, append the date with a lower case letter in the in-text reference: In-text example: 'Rose (2018a, 2018b)' Full reference example: 'Rose G (2018a)...') Publications are ordered alphabetically by title. If more than one publication is cited that was published in different years by the same author, list in chronological order. Rose G (2022) Rose G (2018) If a publication has two authors, spell out 'and'; do NOT join the names with an ampersand (&) in the in-text citation or full reference. In-text example: 'Rose and Smith (2018)') Full reference example: 'Rose G and Smith A (2018)...') If a publication has three or more authors, append the first author with the term 'et al.' For example: 'Rose et al. (2018)'
Organisations (in-text and reference list)	Acronyms may be used for organisation names in an in-text reference. The acronym is the author (e.g., '(AIHW 2017)'), In the full reference, list the acronym, followed by the full name of the organisation enclosed in parentheses (e.g., 'AIHW (Australian Institute of Health and Welfare) (2017)'). Use the abbreviation only in subsequent entries.

Reference type	Guidelines
Publications (general)	The general format for a book publication or journal: Author last name + initial + year of publication + title/or series or issue details (in italics) + publisher details + place of publication. For example: Brennan D (1994) The politics of Australian childcare: from philanthropy to feminism, Cambridge University Press, Melbourne. Book publication compiled by editor/s. Editor/s last name + initial + year (in parentheses) + title (in italics) + publisher + place of publication For example: Kuykendall S (ed) (2018) Encyclopedia of Public Health, Greenwood, California. See also 'Websites and webpage content' for guidelines on the referencing electronic publications.
Reports	Reports are sometimes known better for its short or unofficial title. If using a source like this, use the short title in text. In-text example: The Gonski report (2011) states that... For government reports: Author/organisation + year (in parentheses) + title of report (in italics) + name of agency + name of government For example: AIHW (Australian Institute of Health and Welfare) (2022) National partnership on essential vaccines: performance report 2019–20, AIHW, Australian Government. Online report example: AIHW (Australian Institute of Health and Welfare) (2022) National partnership on essential vaccines: performance report 2019–20, AIHW, Australian Government, accessed 25 May 2022. Note: For organisation names that may have changed, use the name that appears in the source at the time. For example, the organisation IHPA changed to IHACPA in 2022 – use the previous name if the document/report predates 2022.

Reference type	Guidelines
Websites and webpage content	Hyperlink the title of works available online and include the access date. There is no need to include the URL in references in digital content. For example: DFAT (Department of Foreign Affairs and Trade) (2018) Fact sheets for countries, economies and regions, DFAT, accessed 25 May 2022 If a document is print only, include a URL after the reference. Put the URL after the full stop. Print-only example: DFAT (Department of Foreign Affairs and Trade) (2018) Fact sheets for countries and regions – India, DFAT, accessed 25 May 2022. https://www.dfat.gov.au/trade/resources/trade-and-economic-fact-sheets-for-countries-economies-and-regions For online reports, hyperlink the title of the report and include date of access. If citing a PDF, avoid linking directly to the PDF, link to the page that hosts the PDF (i.e. a link that targets the landing page, not the PDF). PDF example: AIHW (Australian Institute of Health and Welfare) (2021) Australian Institute of Health and Welfare Corporate Plan 2022-23, AIHW, accessed 25 May 2022. Digital object identifiers (DOIs) are a series of number and punctuation that identifies a document. Works that have DOIs include journal articles, some e-books and PDFs. If a document has a DOI, include it in the reference list. DOI example: de Visser R (2009) 'One size fits all?' Promoting condom use for sexually transmitted infection prevention among heterosexual young adults'. Health Education Research, 20:557–566, doi: https://doi.org/10.1093/her/cyh015 For more extensive examples for electronic content and reports, see Author–date | Style Manual.

Appendix D: Metadata attributes automatically generated by METEOR

This appendix provides a table listing the attributes that are automatically generated by the METEOR system. Table D1 lists attributes in alphabetical order.

Table D1: Attributes automatically generated by METEOR

Attribute name	Definition	Business rules
Created by	The name of the original creator of the metadata item.	Automatically generated when the metadata item is created and saved for the first time.
Created date/time	The date and time the metadata item was created.	Automatically generated when the metadata item is created and saved for the first time.
Data element concepts implementing this object class	A list of the data element concept(s) that implement this object class.	Automatically generated when an object class is implemented in a data element concept. This attribute is unique to object classes.
Data elements implementing this value domain	A list of the data elements that implement this value domain.	Automatically generated when a value domain is implemented in a data element. This attribute is unique to value domains.
Implementation in data set specifications	Definition when attribute appears in a data element: A list of the data set specifications that implement this data element.	Automatically generated in a data element when the data element is implemented in a data set specification. Where applicable, information provided may include: implementation start date, implementation end date, conditional obligation, and/or data set specification specific information.

Attribute name	Definition	Business rules
	Definition when attribute appears in a data set specification (including clusters): A list of the data set specifications that implement this data set specification.	Automatically generated when a data set specification is implemented in a data set specification (i.e. automatically generated in data set specification A when data set specification A is implemented in data set specification B). Where applicable, information provided may include: implementation start date, implementation end date, conditional obligation, and/or data set specification specific information.
Indicators linked to this indicator set	A list of the indicators that are associated with an indicator set.	Automatically generated when an indicator is linked to an indicator set.
Indicators linked to this outcome area	A list of the indicators associated with an outcome area	Automatically generated when an outcome area is implemented in an indicator set. This attribute is unique to outcome areas.
Last updated by	The name of the person who last updated the metadata item	Automatically generated when the metadata item is updated and saved.
Last updated date/ time	The date and time the metadata item was last updated.	Automatically generated when the metadata item is updated and saved.

Attribute name	Definition	Business rules
Metadata items in this Data Set Specification	A list of the metadata items (either data elements and/or data set specifications) that are implemented in this data set specification.	Automatically generated in a data set specification based on the data elements and/or data set specifications that are implemented in the data set specification. Information provided includes: sequence number (if applicable), metadata item name, obligation, maximum occurrences, conditional obligation text, and/or data set specification specific information.
Metadata items which use this glossary item	A list of the metadata items that reference this glossary item.	Automatically generated when a glossary item is referenced (inserted) in a metadata item. N.B. for this functionality to work correctly, glossary items must be inserted using the 'metadata items' option under the METEOR drop-down menu of the WYSIWIG editor toolbar. Glossary items should not be inserted as simple html links.
METEOR identifier	A unique identifier within METEOR for the metadata item. For example: 724282 N.B. METEOR identifiers also form part of the permanent URL of items within METEOR.	Automatically generated when the metadata item is created and saved for the first time.
Outcome areas linked to this indicator set	A list of the outcome areas that are associated with an indicator set.	Automatically generated when an indicator in the indicator set is linked to an outcome area.
Type	The type of metadata. For example: Object class.	Automatically generated when the metadata item is created and saved for the first time.
Value domains based on this classification scheme	A list of the value domains that implement the classification scheme.	Automatically generated when a value domain implements a classification scheme. This attribute is unique to classification schemes.

Appendix E: Registration status values and associated meanings

This appendix provides information on the registration status values and their accompanying business rules. The registration status values used in METEOR are based on ISO 11179-6-2005(E).

The registration status for a metadata item indicates what stage the item is at in the registration process (or metadata lifecycle).

There are three components to a registration status:

- the registration authorities in which the metadata item has a status
- the status of the metadata item
- the date this status was granted.

When a metadata item is created and saved for the first time, it has a status of Unregistered/no registration status. A metadata item will remain unregistered until the registration status is changed by the developer or registrar.

Ideally, a metadata item should go through each of the pre-standard registration status values (i.e. *Incomplete*, then *Candidate*, then *Recorded*, and onto *Qualified*) as it progresses to become a *Standard*; however, it is not mandatory to do so. This means that a metadata item can, for example, go from *Candidate* registration status to *Standard* registration status if necessary. As metadata items progress through the registration process, this also affects their visibility to different users. Metadata items with the registration statuses of *Recorded*, *Qualified*, *Standard*, *Superseded* and *Retired* are visible to the public user.

Registration status values and their meaning are listed in Table E1 below.

Business rules for registration status changes:

When changing a metadata item's registration status, the following business rules apply:

1. Each registration status must be associated with a registration date. The registration date is the 'effective date' of the registration status change and defaults to today's date. If necessary, the 'effective date' should be changed to a specific date if, for example, a metadata item is endorsed as a standard on a date that is different to the METEOR-generated 'effective date' (e.g., the date the endorsing body met.)
2. Each registration status must be associated with an authorisation statement. Write relevant information and date approved in the 'notes' template at the end of the page. The authorisation statement specifies the authority and date upon which the decision for a registration status change was made. (e.g., 'Endorsed by NHDISC in the 2022_1 March–May Review Cycle, see paper 2022_1_3')

Authorisation statements for metadata elements are visible to signed-in users with access to the element's workgroup – they can be seen under 'View authorisation' under the 'Register' section on the right hand side of the screen. A metadata item with a registration status of *Superseded* must also have a related metadata relationship of *Superseded* by. See Appendix F 'Metadata relationship types and associated meaning' for further information on relationships.

Table E1: Registration status values and meanings

(NB. ISO 11179-6-2005(E) definitions are also included)

Registration status	Meaning	Workflow action	Visibility
Unregistered/ No registration status	Status on initial creation [11179 definition: Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain.]	System generated A metadata item at this stage can be edited by the developer and other members of the workgroup.	Developer, registrar and members of workgroup
Incomplete	A developer has created and submitted this item for consideration by the registrar. [11179 definition: Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain.]	Developer, registrar, and other members of the workgroup may progress metadata item from 'unregistered/no registration status' to 'incomplete'. A metadata item at this stage' can be edited by the developer, registrar, and other members of the workgroup.	Developer, registrar and members of workgroup
Candidate	The metadata item has been reviewed by a data committee and has been accepted onto their work program. [11179 definition: The Administered Item has been proposed for progression through the registration levels.]	Registrar may progress metadata item from 'incomplete' to 'candidate'. A metadata item at this stage can be edited by the developer or registrar, or other members of the workgroup.	Developer, registrar and members of workgroup.

Registration status	Meaning	Workflow action	Visibility
Recorded	The registrar has determined that the item meets basic quality criteria and is ready for consideration by the relevant data committee. [11179 definition: The Registration Authority has confirmed that — all mandatory metadata attributes have been completed.]	Registrar may progress metadata item from 'candidate' to 'recorded'. A metadata item at this stage can be edited by the developer or registrar, or other members of the workgroup.	All users (public)
Qualified	A data committee has recommended the item to a registration authority for approval as a standard. [11179 definition: The Registration Authority has confirmed that the mandatory metadata attributes are complete, and the mandatory metadata attributes conform to applicable quality requirements.]	Registrar may progress metadata item from 'recorded' to 'qualified'. A metadata item at this stage can only be edited by the registrar. A registrar may also revert the status from 'qualified' to 'recorded' to allow the developer to make their own edits. Any edits must be recorded in 'notes' attribute.	All users (public)
Standard	The item has been endorsed by a registration authority as a data standard. [11179 definition: The Registration Authority confirms that the Administered Item is of sufficient quality, and of broad interest for use in the community that uses this metadata register.]	Registrar may progress metadata item from 'qualified' to 'standard'. The metadata item can only be edited by the registrar. Edits at this status should be limited to typing errors or similar that may have been previously missed and which do not change the meaning of the item. Any edits must be recorded in the 'notes' attribute.	All users (public)

Registration status	Meaning	Workflow action	Visibility
Preferred Standard*	Where more than one similar data standard is available, the registration authority recommends this item is preferred for use within the community that uses this metadata register. [11179 definition: The Registration Authority confirms that the Administered Item is preferred for use within the community that uses this metadata register.]	Registrar may progress metadata item from to 'standard' to 'preferred standard'. The metadata item can only be edited by the registrar. Edits at this status should be limited to typing errors or similar that may have been previously missed and which do not change the meaning of the item. Any edits must be recorded in the 'notes' attribute.	All users (public)
Superseded	The item is no longer endorsed as a current data standard by a registration authority, as it has been superseded by another standard. [11179 definition: The Registration Authority determined that the Administered Item is no longer recommended for use by the community that uses this metadata register, and a successor Administered Item is now preferred for use.]	Registrar may progress metadata item from 'standard' or 'preferred standard' to 'superseded'. The metadata item can only be edited by the registrar. Edits at this status should be limited to typing errors or similar that may have been previously missed and which do not change the meaning of the item. Any edits must be recorded in the 'notes' attribute.	All users (public)

Registration status	Meaning	Workflow action	Visibility
Retired	The item is no longer endorsed as a current data standard by a registration authority, and it has not been superseded by another standard. [11179 definition: The Registration Authority has approved the Administered Item as no longer recommended for use in the community that uses this metadata register, and should no longer be used.]	Registrar may progress metadata item from 'standard' or 'preferred standard' to 'retired'. The metadata item can only be edited by the registrar. Edits at this status should be limited to typing errors or similar that may have been previously missed and which do not change the meaning of the item. Any edits must be recorded in the 'notes' attribute.	All users (public)
Not progressed	The item will no longer be considered by the registrar, data committee or registration authority. [NB. Extension to 11179]	Registrar may progress item from any status before 'standard' to 'not progressed'.	Registrar and members of workgroup

The Registration statuses and criteria are based on ISO 11179-6-2005(E).

NB. A metadata administrator may progress a metadata item from any status to any other status. Care should be taken regarding any item that has reached a status after *Standard*.

*The *Preferred standard* registration status is part of the updated ISO/IEC 11179-6:2023, however was not used in the legacy METEOR system.

Appendix F: Metadata relationship types and associated meaning

When creating a relationship between metadata items, the following business rules apply:

1. A relationship may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain).

Relationship type	Applicable to
Supersedes	All metadata item types that are of the same metadata type
See also	All metadata item types
Is formed using	Data elements only

2. When a metadata item is developed to supersede (revise) a *Standard*, a *Supersedes* relationship must be created between the two metadata items. The registration status of the *superseded* item must be changed to *Superseded* once the new item becomes *Standard*.
3. Relationships between metadata items must not duplicate information stored or be available elsewhere in METEOR. For example, when a metadata item is implemented in another metadata item (such as when an object class is implemented in a data element concept), a See also relationship between the two items is not required, and must not be created, as an 'implemented in' relationship is automatically generated by METEOR

Valid relationships are listed in Table F1 below.

Table F1: Valid relationship types

Relationship type (Developer-created in metadata item A)	Complementary relationship (System-generated in metadata item B)	Relationship description	Type of metadata the relationship is applicable to
Supersedes	Has been superseded by	This relationship signifies a superseded metadata item and the metadata item that it was superseded by. The relationship type is applied when a metadata item is developed to revise (supersede) a standard.	All metadata item types that are of the same metadata type (e.g., an object class can only be superseded by an object class; a data element can only be superseded by a data element; etc.).
See also	See also	This relationship signifies an associated metadata item, irrespective of the nature of the association. This relationship type may be applied when it is critical to acknowledge the existence of another metadata item. When a *See* also relationship is applied between two metadata items, no other relationship type can be applied between the two metadata items.	All metadata item types
Is formed using	Is used in the formation of	This relationship signifies that a data element is used in the calculation of, or is a component of, another data element. For example, the data element Emergency service stay—waiting time, total minutes NNNNN might be formed using data elements Emergency service stay—presentation time, hhmm and Emergency service stay—clinical care commencement time, hhmm	Data elements only

Note: METEOR contains metadata items that may have an 'Is re-engineered from' relationship type. This relationship type was applied to metadata that was based on content in the Knowledgebase repository that existed prior to the original METeOR (2005). The 'Is re-engineered from' relationship no longer applies for current METEOR.

Appendix G: Value representation tables

This appendix provides the tables referred to in Chapter 8 'Value domain business rules' and Chapter 13 'Indicator business rules':

- Table G1: Value domain representation class values and their associated meaning
- Table G2: Indicator representation class values and their associated meaning
- Table G3: Value domain data type values and their associated meaning
- Table G4: Indicator data type values and their associated meaning
- Table G5: Data type value options for each representation class
- Table G6: Format values and their associated meaning
- Table G7: Examples of values to be represented and their associated format
- Table G8: Value domain units of measure classifications
- Table G9: Indicator units of measure
- Table G1: Value domain representation class values and their associated meaning

Value	Meaning	Metadata type used in
Average	A numeric value representing an arithmetic mean.	Value domain
Code	A system of valid symbols that substitute for longer values.	Value domain
Count	A sub-type class of 'total'. A numeric value representing a non-monetary numeric value arrived at by counting.	Value domain
Currency	A sub-type class of 'total'. A numeric value representing a monetary value.	Value domain
Date	A numeric value representing a calendar date (i.e. day, month and year) or recognised part of a calendar date (i.e. day, month, and/or year).	Value domain
Identifier	A value which establishes identity.	Value domain
Percentage	A percentage is a proportion multiplied by 100.	Value domain
Quantity	A sub-type class of 'total'. A numeric value representing a continuous number such as the linear dimensions, capacity/ amount (non-monetary) of an object.	Value domain
Ratio	The relationship between two groups or amounts that expresses how much bigger one is than the other	Value domain
Text	An unformatted, descriptive value.	Value domain
Time	A numeric value representing a specific instance in time.	Value domain
Total	A numeric value representing the sum of a set of values or an entire quantity (including monetary).	Value domain

Table G2: Indicator representation class values and their associated meaning

Value	Meaning	Metadata type used in
Count	A sub-type class of 'total'. A numeric value representing a non-monetary numeric value arrived at by counting.	Indicator
Incidence	The number of new cases of a condition (e.g. an illness, disease or event) occurring during a given time period.	Indicator
Mean (average)	The simple mathematical average of a set of two or more numbers. To determine the mean of a set of numerical values, add values together and divide the total by the number of values in the set.	Indicator
Median	The median is based on the value(s) of the observation (s) at the midpoint of a list of observations ranked from the smallest to largest. If the number of observations is odd the median is equal to the value of the middle observation. If there are even number of observations the median is the average of the two middle observations.	Indicator
Percentage	A percentage is a proportion multiplied by 100.	Indicator
Percentile	Any of ninety-nine points that divide an ordered set of observations into one hundred parts, each containing one hundredth of the observations.	Indicator
Prevalence	The total number of individuals (e.g., people) with a given condition in a population at a given point in time, regardless of when the condition may have first appeared.	Indicator
Proportion	A fraction in which the numerator contains a subset of the individuals contained in the denominator.	Indicator
Qualitative measure	Used where an indicator does not represent a mathematical calculation, e.g., where it considers achievement against a target.	
Rate	The number of events (numerator) divided by the total population who could have experienced the event (denominator), multiplied by a constant (e.g., 100, 1000, 10,000) over a specific time period.	Indicator
Ratio	The relationship between two groups or amounts that expresses how much bigger one is than the other.	Indicator

Table G3: Value domain data type values and their associated meaning

Value	Meaning	Metadata type used in
Boolean	A binary value expressed using a string e.g., true or false/yes or no.	Value domain
Currency	A numeric value expressed using a particular medium of exchange.	Value domain
Date/time	A specific instance of time expressed in numeric form.	Value domain
Number	A sequence of numeric characters which may contain decimals, excluding codes with 'leading' characters (e.g., '01','02','03', etc.).	Value domain
String	A sequence of alphabetic and/or numeric characters, including 'leading' characters e.g., '01','02','03'.	Value domain
Image	A depiction recorded electronically to allow viewing or transmission on a computer (e.g., 'jpg', 'png', 'gif')	Value domain
Geospatial	A value representing locational information (i.e. geographic data in the form of coordinates, address, city, postcode, etc.).	Value domain

Table G4: Indicator data type values and their associated meaning

Value	Meaning	Metadata type used in
Coded category	**A set of pre-defined data classifications. The output of the indicator is not a number but one of the potential categories. For example CODE 1 'First quintile', CODE 2 'Second quintile',**	**Indicator**
Integer	An integer number (e.g., –1, 0, 1, 2, 100, 3398129, etc.) is a precise number that is a result of counting and enumerating. Integer numbers are discrete, the set of integers is infinite but countable. No arbitrary limit is imposed on the range of integer numbers.	Indicator
Monetary amount	A quantity expressing the amount of money in some currency.	Indicator
Point in time	A quantity specifying a point on the axis of natural time. A point in time is most often represented as a calendar expression.	Indicator
Real	Fractional numbers. Typically used whenever quantities are measured, estimated or computed from other real numbers. The typical representation is decimal, where the number of significant decimal digits is known as the precision.	Indicator
Time period	A time interval of a single repetition of a phenomenon which repeats itself regularly. Used to denote time interval or average interval between identifiable points of recurrence (e.g., month, quarter, year, etc.).	Indicator

Table G5: Data type value options for each representation class value

Representation class	Data type
Average	Currency or Number
Boolean	Number or String
Code	Number or String
Count	Number
Currency	Currency
Date	Date/time
Identifier	Number or String
Percentage	Number
Quantity	Number
Ratio	Number
Text	String
Time	Date/time
Total	Currency or Number

Table G6: Format values and their associated meaning

Value	Valid character range
A	Alphabetic character set: may represent the letters a-z, A-Z, and special characters(a), but not numeric characters.
N	Numeric character set: may represent whole and decimal numbers including special characters(a), but not alphabetic characters.
X	Alphanumeric character set: contains the alphabetic and numeric character sets (including special characters), and may contain blank characters.
D	A numeric character representing a number of days(b)
M	A numeric character representing a number of months(b).
Y	A numeric character representing a number of years(b).
h	Any numeric character representing a number of hours(b).
m	Any numeric character representing a number of minutes(b).
s	Any numeric character representing number of seconds(b).
{ }	The string within the curly brackets (braces) is optional in its entirety (e.g., X{XX} indicates 1 or 3 alphanumeric characters (i.e. X or XXX)). This notation is often used with decimals, e.g., N[N]{.N} is a number of 1 or 2 digits, with a precision of up to 1 decimal place.
[ ]	The string within the square brackets is optional in any ordered combination (e.g., [XXX] indicates 0, 1, 2 or 3 alphanumeric characters (i.e. blank, X, XX or XXX)).
( )	The character preceding the round brackets (parentheses) is repeated the number of times specified (e.g., X(9) indicates 9 alphanumeric characters).

A special character is a character which has a visual representation and is neither a letter, number, ideogram, or blank. For example, punctuation marks and mathematical symbols.

An ideogram is a character that represents an object or concept e.g., Chinese ideogram or Japanese Kanji.

A blank is a character that represents an empty position in an alphanumeric character field e.g., space. A blank is conceptually different from a null value, which is defined as the absence of a stored value.

Valid in value domains of representation class 'date' or 'time' only. These format values indicate the valid unit(s) of measure to be presented. For value domains of all other representation classes, only the characters A, N, X, { }, [ ], and ( ) may be used to denote the presence of a value.

Table G7: Examples of values to be represented and their associated format

Values to be represented	Representation format	Examples
5 alphabetic characters are required, followed by up to 2 numeric characters.	AAAAA[NN]	AAAAA or AAAAAN or AAAAANN
Up to 5 alphabetic characters are allowed, followed by up to 2 numeric characters. Note: this format accepts blank entries.	[AAAAANN]	A AA AAA AAAA AAAAA AN AAN AAAN AAAAN AAAAAN ANN AANN AAANN AAAANN AAAAANN N NN or blank
Either 1 alphabetic character or 4 alphabetic characters are required.	A{AAA}	A or AAAA
Either 1, 2, 3 or 4 alphabetic characters are required:	A[AAA]	A or AA or AAA or AAAA
15 alphanumeric characters are required.	X(15)	XXXXXXXXXXXXXXX

Values to be represented	Representation format	Examples
At least 1, and up to 15 alphanumeric characters.	X[X(14)]	X or XX or XXX or XXXX or XXXXX etc.
Up to 15 alphanumeric characters. Note: this format accepts blank entries.	[X(15)]	X or XX or XXX or XXXX or XXXXX etc. or blank
2 numeric characters are required, followed by up to 3 alphabetic characters, and 4 required alphabetic characters.	NN[AAA]AAAA	NNAAAA or NNAAAAA or NNAAAAAA or NNAAAAAAA
1 alphabetic character followed by 1 numeric character is required, followed by a either a full stop and up to 2 numeric characters or nothing.	AN{.N[N]}	AN or AN.N or AN.NN
1 alphabetic character, followed by 1 numeric character, a full stop, and 1 numeric character is required, followed by up to 1 numeric character.	AN.N[N]	AN.N or AN.NN
Either 9 numeric characters and 1 alphabetic character or nothing.	{N(9)A}	NNNNNNNNA or blank

Values to be represented	Representation format	Examples
Up to 3 numeric characters followed by up to 1 alphabetic character.	[NNNA]	N or NN or NNN or NA or NNA or NNNA or A or Blank
6 numeric characters are required, followed by either 2 alphabetic characters or nothing.	NNNNNN{AA}	NNNNNN or NNNNNNAA
1 numeric character is required followed by up to 2 numeric characters, followed by either a full stop and 2 numeric characters or nothing	N[NN]{.NN}	N N.NN NN NN.NN NNN or NNN.NN

Table G8: Value domain units of measure classifications

Measurement	Unit of measure name	Unit of measure symbol
Concentration	Catalytic rate of an enzyme	kCat/L
	Gray	Gy
	International Units	IU
	Microgram per litre	µg/L
	Microgram per minute	µg/min
	Micromole per litre	µmol/L
	Millimole per mole	mmol/mol
	Milliequivalent	mEq
	Milliequivalent per litre	mEq/L
	Millimetre of mercury	mmHg
	Millimole per litre	mmol/L
	Milligram per millimole	mg/mmol
	Milligram per litre	mg/L
	Milligram per 24-hour period	mg/24h
	Nanogram per decilitre	ng/dl
	Units per litre	U/L
Currency	Australian currency	AU$
Co-ordinates	Degree Minute Second	
	Decimal degree	
Length	Centimetre	cm
	Millimetre	mm
Temperature	Degree Celsius	°C
Time	Second	s
	Minute	m
	Hour	h
	Hour and minute	hm
	Day	D
	Week	W
	Month	M
	Year	Y
Weight	Gram	g
	Kilogram	Kg
Other	Attendance	
	Bed	
	Bedroom	
	Caesarean sections	
	Cigarette	
	Completed weeks	
	Dose	
	Event	
	Full-time equivalent (FTE) staff	FTE

Measurement	Unit of measure name	Unit of measure symbol
	Full-time equivalent (FTE) student load	
	Group session	
	Heart beats per minute	
	Occasion of service	
	Period	
	Person	
	Phase of care	
	Pregnancy	
	Ranking	
	Score	
	Separation	
	Service contact	
	Service contact date	
	Service event	
	Standard drink	
	Tenancy agreement	
	Tenancy/rental unit*	
	Tenancy unit	

* The unit of measurement Tenancy/rental unit has been superseded by Tenancy unit, however remains in the list as it is used in superseded elements.

Table G9: Indicator units of measure

	Unit of measure name	
	Currency	
	Day	
	Disease type	
	Dwelling	
	Episode	
	Event	
	Hospital bed	
	Household	
	Jurisdiction	
	Life event (e.g., birth, death)	
	Person	
	Phase of care	
	Service contact	
	Service event	
	Service type	
	Time (e.g., days, hours)	

Appendix H: Data element clusters

A data element cluster is one of three types of data set specifications in METEOR. A data element cluster consists of two or more data elements that are required for capturing a response and/or building a data item for statistical purposes on a particular subject.

A data element cluster may be included in a data set specification when there is a need to better describe a group of related data elements and how they are to be collected or interpreted. The relationship between the data elements in a cluster is clearly defined in the cluster's scope statement.

However, a data element cluster should not be used to simply organise data elements within a data set specification or mimic how questions are grouped within a data collection tool, such as a survey instrument. A data element cluster should also not be used to represent how data are outputted for data analysis purposes.

When implementing a data element cluster within a data set specification, a level of caution is required due to the amount of superseding activity needed when a data element within a cluster is superseded (revised). The use of data element clusters can also result in too many layers within a data set specification. See 'Cautionary note on the use of data element clusters' below for further information.

The two typical types of data element clusters in METEOR are a matched data element cluster and a conditional data element cluster.

Matched data element cluster

A matched data element cluster may be appropriate when data are to be reported for the purpose of cross classificatory data collection (i.e. where the value of one data element is associated with the value of another). This type of data element cluster is useful for aggregate functions, such as totals, counts, averages, and the like. The use of a matched data element cluster can reduce the number of data elements required in a data set specification when data are collected in the same format. For example, if the average number of full-time equivalent staff are to be collected, rather than having individual data elements for each type of staffing category, one data element could exist representing all staffing categories (i.e. as a code.) This data element could be combined in a cluster with another data element representing the average full-time equivalent staff units. These two data elements can be collected together to obtain the number of full-time equivalent staff in establishments (see example below).

Example of a matched data element cluster

Full-time equivalent staffing data element cluster

- Establishment—full-time equivalent staff, average N[N(7){.N}]
- Establishment—staffing categories, health code N[N]

The two data elements together can be used to create a matrix, as below:

Staffing category	Full-time equivalent staff
Administrative and clerical staff	N[N(7).{N}]
Enrolled nurses	N[N(7).{N}]
Specialist salaried medical officers (SMOs)	N[N(7).{N}]
...	...
Total	N[N(7).{N}]

Conditional data element cluster

A conditional data element cluster may be appropriate where a group of data elements are to be reported in conjunction with each other in a particular data set specification. For example, in a data set specification on acute coronary syndrome, collecting clinical data about an electrocardiogram may require data on the date and time of the test and the presence or absence of abnormalities. Such data elements could be grouped into an electrocardiogram data element cluster (see example below). This cluster could be recorded multiple times per each person (the statistical unit of the data set specification.)

Example of a conditional data element cluster

Electrocardiogram data element cluster

- Electrocardiogram—electrocardiogram date, DDMMYYYY
- Electrocardiogram—electrocardiogram time, hhmm
- Electrocardiogram—electrocardiogram bundle-branch block indicator, yes/no code N
- Electrocardiogram—electrocardiogram bundle-branch block location, code N
- Electrocardiogram—electrocardiogram bundle-branch block status, code N
- Electrocardiogram—electrocardiogram change location, code N
- Electrocardiogram—electrocardiogram change type, code N
- Electrocardiogram—electrocardiogram lead V4R indicator, yes/no code N
- Electrocardiogram—electrocardiogram Q waves indicator, yes/no code N
- Electrocardiogram—electrocardiogram Q waves, code N Electrocardiogram electrocardiogram ST-segment elevation in lead V4R indicator, yes/no code N
- Electrocardiogram—heart rhythm type, code N[N]

A conditional data element cluster may also be appropriate when collecting data on a subset of a target population. For example, in a cancer screening or other health-related data set specification, a diagnosis data element cluster may be appropriate when collecting data on those who have been diagnosed with cancer (see example below). This cluster could have a conditional obligation within the data set specification (i.e. conditional on a positive cancer diagnosis.)

Example of a conditional data element cluster

Bowel cancer diagnosed data element cluster

Person with cancer—primary site of cancer, topography code (ICD-O-3) ANN.N

Patient—diagnosis date of cancer, DDMMYYYY

Cancer staging—cancer staging scheme source, code N[N]

Cancer staging—staging basis of cancer, code A

Person with cancer—extent of primary cancer, TNM stage (UICC TNM Classification of Malignant Tumours, 7th ed) code X[XX]

Episode of admitted patient care—admission date, DDMMYYYY

Cautionary note on the use of data element clusters

It is recommended that the use of data element clusters is kept to a minimum, where possible. If a data element cluster is implemented in a DSS (including an NBEDS or NPBDS) or an NMDS and, for example, a value domain in one of the data elements in the cluster is superseded, then not only will the data element(s) that implements the value domain require superseding, but the entire cluster and the DSS or NMDS the cluster is implemented in will need to be superseded. This can result in considerable superseding activity and metadata maintenance work for a developer.

In addition to the reasons above, the implementation of a data element cluster within another data element cluster is not recommended as it creates even further layers within a data set specification. As a result, data elements can end up being buried within a data set specification and may not be clearly visible to users.

Business rules for data element clusters

Data element clusters are created in METEOR using the data set specification template. In addition to the business rules on data set specifications in Chapter 12, the following rules apply specifically to data element clusters:

1. Only data elements are permitted in a data element cluster.
2. A data element cluster must implement at least two data elements.
3. A data element cluster may be implemented in a DSS (including NBEDS and NBPDS) or NMDS.
4. The relationship between the data elements implemented in a data element cluster must be clearly described in the cluster's 'Scope' attribute.

Glossary

AS 21667–2012 The indicator sets, indicators and outcome areas are based on the Australian Standards Health indicators conceptual framework.

attribute: A characteristic of a metadata item (e.g., name or definition). Each attribute appears as a field in the metadata item template.

classification scheme: A metadata type that represents an official terminological system for classifying data that is recognised and endorsed by a national or international body.

A classification scheme contains descriptive information to arrange concepts into groups based on criteria such as the characteristics which they have in common. Types of classification schemes include controlled vocabularies, uncontrolled vocabularies, taxonomies, thesaurii, and ontologies. An example of a classification scheme is the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification, Twelfth edition.

In METEOR, a classification scheme may be implemented by one or more value domains. The classification scheme acts as a type of reference, pointing to where the user may find the list of permissible values for the value domain, without the need to enumerate them explicitly in the value domain.

data element: A metadata type that is the basic unit of identifiable and definable data information in METEOR used to standardise the representation of data. A data element is commonly referred to as a 'DE'. It is created by the union of a data element concept and a value domain.

data element concept: A metadata type that represents a concept created by the union of one object class and one property. A data element concept is commonly referred to as a 'DEC'.

data quality statement: A data quality statement (DQS) provides information on the quality and suitability of the collected data for its original intended use and potential re-use. A DQS includes a range of information to help users understand the important data limitations, in order to make informed judgements about use of the data.

data set specification: A data set specification (DSS) is a grouping of data elements and/or other data set specifications, and the conditions under which the grouping should be collected or reported.

data source: A metadata type that is a specific data set, database or reference from where data are sourced.

data standard: Metadata that has undergone the endorsement process by a registration authority to become a standard. A data standard endorsed for use across Australia is referred to as a national data standard.

developer: A person who has authorised access to METEOR to create and develop metadata with the aim of producing data standards.

framework and dimensions: A conceptual framework monitors progress or outcomes of a particular system and broader determinants of performance of a system in order to improve the services provided for target populations over time.

glossary item: A metadata type that defines the meaning of a term within a specific context. A glossary item allows a term to be defined precisely and consistently within the context without the need for the full definition to be repeated each time it is used.

indicator: A metadata type that defines the specification for a statistical measure used to describe the progress or performance of a particular aspect of the system or program being examined.

indicator set: A metadata type that consists of a group of indicator specifications combined to provide analysis on a broader topic.

ISO/IEC 11179: The international standard for metadata registries on which METEOR's architecture is based. Please note that METEOR also includes some non-ISO 11179 components, i.e. extensions to the ISO 11179 protocol.

metadata: Metadata are 'data about data' – information about how data are defined, structured and represented. Metadata make data files meaningful by describing the information that has been captured in data, and how it is measured and represented.

METEOR metamodel: The architectural framework model that defines how METEOR is structured (see Figure 1.1).

object class: A metadata type that represents the 'thing' of interest being described for which data are collected. An object class is commonly referred to as an 'OC'.

outcome area: An outcome area defines the target, standard, or the ideal result which an indicator is being assessed against (e.g., a government policy).

property: A metadata type that represents the characteristic or aspect of the 'thing' of interest (i.e. the identified object class) that one wishes to know about and collect data on.

registrar: An authorised person who works on behalf of a METEOR registration authority. A registrar's access to METEOR enables them to review and manage metadata items through the data standards endorsement process.

registration authority: An organisation that has the authority to endorse a metadata item as a data standard for a particular sector.

registration status: Indicates what stage a metadata item is at in the registration process (or metadata lifecycle) in METEOR.

template: metadata within METEOR is created and edited by means of templates, i.e. forms containing the attributes available for each item type. Mandatory attributes are marked with an asterisk (*).

value domain: A metadata type that provides the implied, or explicit, set of permitted, or valid, values and representation for the concept defined by a data element. A value domain is commonly referred to as a 'VD'.

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Related publications

ABS Data Quality Framework (2009) The ABS Data Quality Framework, accessed 7 July 2022

This report, Juvenile justice in Australia 2007–08, is part of an annual series. The four earlier editions and any published subsequently can be downloaded for free from the AIHW website <http://www.aihw.gov.au/publications/index.cfm/series/405>. The website also includes information on ordering printed copies.

Interim tables relating to this report were published separately online as Juvenile justice in Australia 2008-09: Interim report—main tables. See <http://www.aihw.gov.au/publications/index.cfm/title/12624>.

The following AIHW publications relating to children, youth and families might also be of interest:

AIHW 2010. Health and wellbeing of young Australians: indicator framework and key national indicators. Bulletin no. 77. Cat. no. AUS 123. Canberra: AIHW.

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