# **Quality statement business rules**

## Identifying and definitional attributes

Metadata item type: Quality statement

Synonymous names: The following information is applicable to all metadata items except

classification scheme.

METeOR identifier: 399175

Registration status: No registration status

#### Relational attributes

*Indicators linked to this Quality statement:* 

Indicator business rules

### Data quality

Quality statement summary:

A brief summary of the key issues to be aware of when using the data. Aspects that should be included, where relevant, are:

- 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.

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.

Timeliness:

The delay to which the information correctly describes the phenomena being measured. Aspects of timeliness which should be addressed, where relevant, include:

- 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

Accessibility:

The ease with which the information can be obtained. 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. Aspects of accessibility which should be addressed, where relevant, include:

- how to access relevant publications and reports, including hotlinks to website
- how to access relevant data sets, including hotlinks
- information on how to access data which is not available online or in reports,

 information on how to seek access to very detailed data or to unit record data

*Interpretability:* 

The availability of information to help provide insight into the data. Information available which could assist interpretation may include information about the variables used, the availability of metadata, including concepts and classifications. Interpretability is an important component of quality as it enables the information to be understood and utilised appropriately. Information on interpretability would point users towards other documentation to help understand the data and also illuminate any key variables which are difficult to interpret. Aspects of interpretability which should be addressed, where relevant, include:

- how to access information about the collection, including hotlinks
- types of information available in publications and reports, including hotlinks

Relevance:

The degree to which 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. 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. It is under the 'relevance' dimension that key information would be given about the broad definitional and coverage aspects of the data.

Aspects of relevance which should be addressed, where appropriate, include:

- 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
- reference period: this refers to the period for which the data were collected (e.g., the September-December quarter of the 2008-09 financial year), as well as whether there were any exceptions to the collection period (e.g., delays in receipt of data, changes to field collection processes due to natural disasters)
- geographic detail: information about the level of geographical detail available for the data (e.g., postcode area, Statistical Local Area), and the actual geographic regions for which reliable data are available
- if not all states and territories provided data, this should be noted
- 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
- availability (or otherwise) of information on indigenous identification
- 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
- other cautions: information about any other relevant issue or caution that should be exercised in the use of the data

Accuracy:

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.

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 quality statements. Aspects of accuracy which should be addressed, where appropriate, include:

- the role of data providers and AIHW in ensuring quality
- coverage error: this occurs when a unit in the data is incorrectly excluded or included, or is duplicated in the data
- 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
- 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
- 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
- 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
- the quality of indigenous status data should be noted, especially when they are only of sufficient quality for statistical reporting purposes for selected jurisdictions
- 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

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. 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 Aspects of coherence which should be addressed, where appropriate, include:

• 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
- 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
- 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
- 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

# **Data products**

*Implementation start date:* 

The date upon which the collection of data for this specific version of the data set specification was first implemented.

### Source and reference attributes

Submitting organisation:

One or more organisations responsible for the submission of the metadata item for national endorsement as a standard.

Steward: Australian Institute of Health and Welfare

Origin: The following information is applicable metadata items except value

domains.

Definition

Any document(s) (including web-sites), organisations or

committees from which any content of the metadata item originates.

Reference documents: The following information is applicable to all metadata items except

value domains.

Definition

Significant documents that contributed to the development of the metadata item which were not the direct source for the metadata content.

#### Obligation

Conditional completion: complete for metadata items that were developed in consultation with a document outside of METeOR.

### Development rules

Conclude and separate each reference with a new line (without a full-stop).

References should comply with the following referencing guidelines:

In-text references

In-text citations should follow one of the following formats:

[Left bracket+] Author [+space +] year of publication [+right bracket + page number(s) if applicable] Author [+space + left bracket +] year of

publication [+right bracket+ page number(s) if applicable] 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 e.g. ICD-10-AM 3rd edition.

The short, formal title of a piece of legislation should be cited exactly, in full, and in italics, followed by the jurisdiction (abbreviated and enclosed in parentheses) e.g. Health Insurance Act 1973 (Cwlth).

#### Relational attributes

Related metadata references:

The following information is applicable to all metadata items **Definition** 

An indicator of relationships between metadata items.

#### Obligation

Optional completion.

### Development rules

Relationships may be created between any two metadata items. They can be created between items of the same metadata type (e.g. between two data elements) or of a different metadata type (e.g. a between a property and a value domain).

Related metadata relationships should not duplicate information stored or available elsewhere in METeOR. For example, that data element A is an implementation of data element concept B should only be recorded in the data element concept name attribute of the data element; that data element C is normally associated with data element D should only be recorded in a DSS.

Valid relationships within METeOR are listed in Table 1 below. METeOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table).

The relationship *See also* may only be applied where it is critical for the reader to know that the other item exists, other valid relationships (as listed in the table) are not applicable, and when the relationship does not duplicate information stored elsewhere.

When creating a *Superseded* related metadata relationship, the registration status of the superseded item must be set to *Superseded*. To create a relationship:

- 1. Select a value from the Relationship type drop down list.
- 2. Click the *Add...* button to open the metadata item browser.
- 3. Select the metadata item and click the *Ok* button.
- 4. The relationship will then be listed on the metadata item creation window.
- 5. The relationship can be deleted by clicking the *Remove* button to the left of the listed relationship.

Table 1: Valid formal relationships between metadata items and their associated meaning

Relationship type	Complementary relationship	Description	Valid metadata
Supersedes	Has been	An indicator of a superseded	All metadata

	superseded by	item and the item that it was superseded by.	item types.
Is formed using	Is used in the formation of	An indicator of an item that is used in the calculation of, or is a component of, another item.	Data elements only.
See also	See also	An indicator of an associated item, irrespective of the nature of the association.	All metadata item types.
Is re- engineered from		A link between a metadata item reengineered by AIHW and the PDF file representing the retired Knowledgebase version.	Metadata created by AIHW as part of the initial population of METeOR from Knowledgebase content.