

# National Healthcare Agreement: PI 02-Incidence of selected cancers, 2014 QS

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## Identifying and definitional attributes

<b>Metadata item type:</b>	Data Quality Statement
<b>METEOR identifier:</b>	517768
<b>Registration status:</b>	<a href="#">Health</a> , Superseded 14/01/2015

## Data quality

### Data quality statement summary:

2010 incidence data for NSW and ACT were not available for inclusion in the 2010 version of the Australian Cancer Database (ACD). The development of the new NSW Cancer Registries system has resulted in a delay in processing incidence data for 2010 onwards. Details of the expected time-line for processing of 2010 cancer incidence data for NSW and ACT are available at:

<http://www.cancerinstitute.org.au/data-and-statistics/accessing-our-data/availability-of-nsw-central-cancer-registry-data#incidence-when-2009>.

Therefore 2010 incidence data for NSW and ACT were estimated by the Australian Institute of Health and Welfare (AIHW). Although the estimation procedure has been shown to be reasonably accurate for estimating overall cancer incidence, its accuracy with respect to individual cancers will vary. Until the actual 2010 cancer data are available from these jurisdictions caution should be exercised when comparing the 2010 NSW, ACT and Australian data with data from previous years. The estimates of 2010 incidence in NSW and ACT cannot be disaggregated by Indigenous status, remoteness area or socioeconomic status. The Australian totals for these tables do not include NSW and ACT.

This indicator only counts one year of incidence data. For jurisdictions that record relatively small numbers of cancers, rates may fluctuate widely from year to year; these changes should be interpreted with caution.

The quality of Indigenous identification in cancer registry data varies between jurisdictions. National disaggregation by Indigenous status is based on jurisdictions with adequate data quality (NSW, Qld, WA and NT). Indigenous data for other jurisdictions should be interpreted with caution. Even with adequate data quality, the small numbers behind many disaggregations means certain Indigenous data are not robust enough for meaningful comparisons. Information on adequacy of Indigenous identification in cancer registry data is provided to AIHW by each jurisdictional cancer registry.

Some jurisdictions may use an imputation method to impute missing Indigenous status for reporting purposes. This may lead to an underreporting of rates in this Indicator compared to those shown in jurisdictional cancer incidence reports.

The incidence rate in Indigenous Australians may fluctuate considerably from year to year due to the behaviour of rare events in small populations.

Remoteness area and socioeconomic status are based on Statistical Local Area (SLA) of residential address at the time of diagnosis.

Due to Health Department policy in the ACT and NT, incidence rates based on counts of between 1 and 4 persons have been suppressed because of statistical unreliability.

**Institutional environment:** The National Cancer Statistics Clearing House (NCSCH), housed at the AIHW, is a collaborative partnership between the AIHW and the Australasian Association of Cancer Registries (AACR).

Cancer incidence data are supplied to the AIHW by state and territory cancer registries. These data are compiled by AIHW to form the Australian Cancer Database (ACD). All jurisdictions have legislation requiring mandatory reporting of all cancer cases with the exception of basal cell carcinoma of the skin and squamous cell carcinoma of the skin.

**Timeliness:** Data available for the 2014 COAG Reform Council report are based on cancers diagnosed in 2010, noting that cancers for NSW and ACT are based on estimates.

**Accessibility:** The NCSCH provides summary cancer incidence and mortality data annually via the AIHW website where they can be downloaded free of charge. A biennial report, *Cancer in Australia*, is published and is also available on the AIHW website where it can be downloaded without charge. More specialised data can be requested via the AIHW website.

**Interpretability:** While numbers of new cancers are easy to interpret, calculation of age-standardised rates is more complex and the concept may be confusing to some readers. Information on how and why age-standardised rates have been calculated and how to interpret them is available in all AIHW cancer publications presenting data in this format, for example, *Cancer in Australia: an overview, 2012*. Information about the Australian Cancer Database is available on the AIHW website.

**Relevance:** The data used to calculate this indicator are accurate and of high quality. The mandatory reporting of cancers and the use of Estimated Resident Populations (ERPs) based on Census data for denominators provides the most comprehensive data coverage possible. The data are appropriate for this indicator.

**Accuracy:** 2010 incidence data for NSW and ACT were not available for inclusion in the 2010 version of the ACD. The development of the new NSW Cancer Registries system has resulted in a delay in processing incidence data for 2010 onwards. Details of the expected time-line for processing of 2010 cancer incidence data for NSW and ACT are available at: <http://www.cancerinstitute.org.au/data-and-statistics/accessing-our-data/availability-of-nsw-central-cancer-registry-data#incidence-when-2009>. Therefore 2010 incidence data for NSW and ACT were estimated by the AIHW. Although the estimation procedure has been shown to be reasonably accurate for estimating overall cancer incidence, its accuracy with respect to individual cancers will vary.

As NSW and ACT make up about a third of Australia's population, the national incidence data for 2010 is likely to be somewhat inaccurate for some individual cancers; which cancers these are is not predictable. Until the actual 2010 cancer data are available from these jurisdictions caution should be exercised when comparing the 2010 NSW, ACT and Australian data with data from previous years. The estimates of 2010 incidence in NSW and ACT cannot be disaggregated by Indigenous status, remoteness area or socioeconomic status. The Australian totals for these tables do not include NSW and ACT.

It is anticipated that the 2011 version of the ACD will include the real 2010 incidence data for NSW and ACT.

2009 incidence data for NSW and ACT include estimates of so-called 'death certificate only' (DCO) cases. An extended delay in the provision of 2009 mortality data from the Council of Australian Registrars has meant that NSW and ACT have not been able to register cases of cancer that are recorded on a death certificate but which were not notified to the cancer registry by any other means. The number of such cases in 2009 for each cancer, sex and age group has been estimated by the AIHW based on the numbers observed for 2004–2008. Overall for the five cancers covered in the Indicator, about 1.2% of NSW cases and 1.4% of ACT cases are estimated DCO cases. The percentage varies by cancer type.

For Indigenous status, the numerator for 'Indigenous' is the number of people who self-reported that they were Indigenous at the time of diagnosis. 'Other' includes those who self-reported that they were not Indigenous at the time of diagnosis and those who chose not to identify as either Indigenous or non-Indigenous.

Caution is required when examining differences across Indigenous status as Vic, SA, Tas and ACT do not have adequate data quality for this indicator. NSW, Qld, WA and NT have indicated that their Indigenous data quality is sufficient for reporting; however, 2010 incidence data for NSW is estimated and Indigenous status for these estimates is not available. Therefore, in 2010, Qld, WA and NT are the only jurisdictions with adequate Indigenous data quality.

Socioeconomic status rankings (by Index of Relative Socio-Economic Disadvantage (IRSD) score) are calculated by SLA using a population-based method at the Australia-wide level. That is, the quintiles are national quintiles, not state and territory quintiles.

An SLA-to-remoteness-area concordance and SLA-to-socioeconomic-status concordance were used to allocate remoteness area and socioeconomic status to each record on the ACD based on the person's SLA of residence at time of diagnosis.

Caution is required when examining differences across remoteness area and socioeconomic status categories. The SLA of a person is computed by the cancer registry based on the address provided by the person. Some people may supply an address other than that where they normally reside or the details the person provides may not correspond to a valid address meaning that their cancer record cannot be allocated to a remoteness area or socioeconomic status category at all. Such records are excluded from the tables and this may affect some remoteness area and socioeconomic categories more than others. Also, because the concordances are based on the 2006 census, SLA boundaries may have changed over time which creates inaccuracies.

Due to the very small number of diagnoses involved, disaggregation by Indigenous status, or remoteness area, or socioeconomic status by state and territory is not necessarily robust. For example, some SLAs cover a large and heterogeneous geographical area including towns and very remote areas, yet all people in a given SLA are assigned the same socioeconomic status.

Variability bands have been provided to indicate the extent to which conclusions can be drawn about differences in incidence rates between population subgroups. The bands are calculated as 95% confidence intervals around the age-standardised rate, based on the assumption that the number of cancers diagnosed within each category is a Poisson random variable. Although this is a standard assumption in cancer incidence calculations around the world it is important to note that it is not possible to prove or disprove this assumption.

This indicator only counts one year of incidence data. For jurisdictions that record relatively small numbers of cancers, rates may fluctuate widely from year to year; these changes should be interpreted with caution.

Due to Health Department policy in the ACT and NT, incidence rates based on counts of between 1 and 4 persons have been suppressed because of statistical unreliability.

This indicator is calculated on data that have been supplied to the AIHW and undergone extensive checks at both the source cancer registry and the AIHW. The state and territory cancer registries have checked the tables and given their approval for the AIHW to supply them to the Productivity Commission.

#### **Coherence:**

These data are published annually by the AIHW. While there are sometimes changes to coding for particular cancers, it is possible to map coding changes to make meaningful comparisons over time.

Not all state and territory cancer registries use the same ICD-10 code groupings to classify certain cancers. This may mean that data presented here are different to those reported by jurisdictional cancer registries, for certain cancers. The definitions used in this Indicator are as follows.

- Bowel cancer: ICD-10 codes C18–C20
- Lung cancer: ICD-10 codes C33–C34
- Melanoma of the skin: ICD-10 code C43
- Breast cancer in females: ICD-10 code C50 and sex female
- Cervical cancer: ICD-10 code C53.

Some jurisdictions may use an imputation method to impute missing Indigenous status for reporting purposes. This may lead to an underreporting of rates in this Indicator compared to those shown in jurisdictional cancer incidence reports.

The incidence rate in Indigenous Australians may fluctuate considerably from year to year due to the behaviour of rare events in small populations.

## **Source and reference attributes**

**Submitting organisation:** Australian Institute of Health and Welfare

## Relational attributes

### Related metadata references:

Supersedes [National Healthcare Agreement: PI 02-Incidence of selected cancers, 2013 QS](#)

[Health](#), Superseded 14/01/2015

Has been superseded by [National Healthcare Agreement: PI 02-Incidence of selected cancers, 2015 QS](#)

[Health](#), Superseded 08/07/2016

### Indicators linked to this Data Quality statement:

[National Healthcare Agreement: PI 02-Incidence of selected cancers, 2014](#)

[Health](#), Superseded 14/01/2015