

National Healthcare Agreement: PI 02-Incidence of selected cancers, 2013 QS

Identifying and definitional attributes

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- [Health](#), Superseded 14/01/2015

Relational attributes

Indicators linked to this Quality statement: [National Healthcare Agreement: PI 02-Incidence of selected cancers, 2013 Health](#), Superseded 30/04/2014

Data quality

**Quality statement
summary:**

- The 1982–2009 data files for New South Wales and the Australian Capital Territory were not available for inclusion in the 2009 version of the Australian Cancer Database (ACD). An extended delay with receipt of mortality data from the Council of Australian Registrars has meant that New South Wales and the Australian Capital Territory have not been able to close off their 2009 data sets. As a consequence 2009 cancer data for these jurisdictions is not available for reporting purposes. Therefore, the 2009 incidence data for New South Wales and the Australian Capital Territory were estimated by the Australian Institute of Health and Welfare (AIHW) in consultation with the New South Wales and the Australian Capital Territory cancer registries. 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 2009 cancer data is available from these jurisdictions comparisons with other year's data, including totals are not recommended. Disaggregation by Indigenous status, Remoteness area, socioeconomic status for 2009 incidence data are not available for these jurisdictions, so the totals for these tables do not include those jurisdictions.
- This indicator only counts one year of incidence data. For jurisdictions that record relatively small numbers of cancers, rates may fluctuate 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 (Queensland, Western Australia, and the Northern Territory). 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.
- Remoteness area and socioeconomic status are based on postcode of residential address at the time of diagnosis. The necessary use of postcode-based data also leads to socioeconomic status interpretability issues at the State and Territory level. For example, some postcodes in the Northern Territory cover a vast geographical area including towns and very remote areas, yet all people in a given postcode will be given the same socioeconomic status quantiles. For this reason, the Northern Territory column is suppressed for the socioeconomic status table.
- Some State and Territory jurisdictions may use different methodologies for particular subgroups (for example, some may use an imputation method for determining Indigenous cancers). This may lead to differences in rates between this Indicator and those shown in jurisdictional cancer incidence reports.
- Some data cells have been suppressed for confidentiality and reliability reasons (for example, if the denominator is less than 1,000, the numerator is less than 5 (or less than 10 for the Northern Territory), or the rate could not be sensibly estimated).

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 and squamous cell carcinoma of the skin).

However, cancer incidence data for 2009 were not available from the New South Wales and Australian Capital Territory cancer registries. Instead, overall estimates of 2009 cancer incidence are provided for these jurisdictions; disaggregations by Remoteness area, socioeconomic status or Indigenous status are not available. The overall estimates have been approved by the relevant cancer registries. Until the actual 2009 cancer data is available from these jurisdictions comparisons with other year's data, including totals are not recommended.

Timeliness:

Data available for the 2013 COAG Reform Council report are based on cancers diagnosed in 2009, noting that cancers for New South Wales and the Australian Capital Territory are based on estimates.

Accessibility: The NCSCH provides 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.

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 users. Information on how and why the 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 on all of the AIHW-held data sets, in this case the ACD, 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.

For participation by 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 some states and territories do not have adequate data quality for this indicator (Victoria, South Australia, Tasmania and the Australian Capital Territory). Western Australia, Queensland, New South Wales and the Northern Territory have indicated that their Indigenous data quality is sufficient for reporting; however, 2009 incidence data for New South Wales is estimated and Indigenous status for these estimates are not available. Therefore, Western Australia, Queensland and the Northern Territory are the jurisdictions with adequate Indigenous data quality.

A Postal Area (POA) to Remoteness area concordance and a POA to socioeconomic status concordance were used to allocate persons diagnosed with these reported cancers to Remoteness area and socioeconomic status categories based on their postcode of residence.

Caution is required when examining differences across Remoteness area and socioeconomic status categories for several reasons. First, while the postcode of persons diagnosed is interpreted as postcode of residence, some may have supplied an address other than where they reside, or their postcode may be invalid or missing. Second, because the concordances are based on the 2006 census, postcodes and boundaries may have changed over time, creating inaccuracies. Third, some newer postcodes are absent from these concordances, meaning that some people diagnosed with cancers are unable to be allocated to a socioeconomic status or Remoteness area category. Where postcodes are not available in these concordances, the person's data are excluded from the relevant disaggregation reported.

Socioeconomic status rankings (by Index of Relative Socio-Economic Disadvantage (IRSD) score) are calculated by POA using a population-based method at the Australia-wide level. These ranked socioeconomic status POAs are then allocated to their relevant jurisdiction, meaning quintiles should contain similar socioeconomic groups across states and territories.

Accuracy:

The 1982–2009 data files for New South Wales and the Australian Capital Territory were not available for inclusion in the 2009 version of the ACD. An extended delay of the receipt of mortality data from the Council of Australian Registrars meant that New South Wales and the Australian Capital Territory were not able to close off their 2009 data sets. As a consequence, 2009 cancer data for these jurisdictions were not available for reporting purposes. Therefore, the 2009 incidence data for New South Wales and the Australian Capital Territory were estimated by the AIHW in consultation with the New South Wales and the Australian Capital Territory cancer registries. 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 New South Wales and the Australian Capital Territory make up about a third of Australia's population, the national incidence data for 2009 is likely to be somewhat inaccurate for some individual cancers—which cancers these are is not predictable. Until the actual 2009 cancer data is available from these jurisdictions comparisons with other year's data, including totals are not recommended. Further, disaggregation by Indigenous status, Remoteness area, socioeconomic status for 2009 incidence data are not available for these jurisdictions, so the totals for these tables do not include those jurisdictions.

It is anticipated that future versions of the ACD will include 2009 actual data for New South Wales and the Australian Capital Territory.

Analyses by Remoteness area and socioeconomic index for areas are based on postcode of usual residence. There may be differences in the collection of data for allocation of 'usual residence'. Census data are rigorous when applying the definition for 'usual residence'. However, people may not be so rigorous when reporting their 'usual residence' to clinicians.

Incidence rates which are calculated using small numbers, e.g. for infrequent cancers, can be highly variable. Variability bands have been provided to indicate the extent to which conclusions can be made about the relative risk of different population subgroups.

This indicator is calculated on data that have been supplied to the AIHW. Prior to publication, the results of State and Territory analyses are referred back to jurisdictions for checking and clearance. Any errors found by jurisdictions are corrected by the AIHW once confirmed.

While previous reports can be used to verify these data at the national level, incidence by Remoteness area and socioeconomic status categories has never before been disaggregated by a POA to Remoteness area concordance and a POA to socioeconomic status concordance, by State and Territory across all of Australia, and has thus not been verified by State and Territory jurisdictions.

Due to the very small numbers involved, disaggregation of participation by Indigenous status by State and Territory is not robust and leads to issues around confidentiality and comparability. The necessary use of postcode-based data also leads to socioeconomic status interpretability issues at the State and Territory level. For example, some postcodes in the Northern Territory cover a vast geographical area including towns and very remote areas, yet all people in a given postcode will be given the same socioeconomic status quantiles (quintile and decile). For this reason, the Northern Territory column is suppressed for the socioeconomic status table.

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

There are several sources of missing values. First, the state or territory may not have a postcode included for all incidence records, or the postcode supplied may not be valid. For those incidence records that do have a valid postcode, many cannot be allocated to a Remoteness area or socioeconomic category, as their postcode may not be included in the concordances. This may affect some Remoteness area and socioeconomic categories more than others.

Some data cells have been suppressed for confidentiality and reliability reasons (for example, if the denominator is less than 1,000, the numerator is less than 5 (or less than 10 for the Northern Territory), or the rate could not be sensibly estimated).

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 Australian State and Territory cancer registries use the same ICD10 code groupings to classify certain cancers. Further, the national cancer data presented here may use different code groupings to some jurisdictions. This may mean that data presented here are different to that reported by individual jurisdictional cancer registries, for certain cancers.

The AIHW define the PI 04 cancers by the following ICD-10 codes:

Cancer	ICD-10 codes
Bowel	C18–C20
Lung	C34
Melanoma	C43
Female breast	C50
Cervical	C53

Some State and Territory jurisdictions may use different methodologies for particular subgroups (for example, some may use an imputation method for determining Indigenous cancers). This may lead to differences in rates between this Indicator and those shown in jurisdictional cancer incidence reports.

Source and reference attributes

Submitting organisation: Australian Institute of Health and Welfare

Relational attributes

Related metadata references:

Has been superseded by [National Healthcare Agreement: PI 02-Incidence of selected cancers, 2014 QS](#)

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

Supersedes [National Healthcare Agreement: PI 04-Incidence of selected cancers, 2012 QS](#)

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