

National Healthcare Agreement: PI 11-Cervical screening rates, 2011 QS

Identifying and definitional attributes

Metadata item type:	Quality Statement
METEOR identifier:	447960
Registration status:	<ul style="list-style-type: none">• Health, Superseded 04/12/2012

Relational attributes

Indicators linked to this Quality statement:	National Healthcare Agreement: PI 11-Cervical screening rates, 2011 Health , Superseded 30/10/2011
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Data quality

Quality statement summary:	<ul style="list-style-type: none">• Remoteness and socioeconomic status are based on postcode of residential address at the time of screening, not the location of screening. State/territory disaggregation by remoteness and socioeconomic status is subject to data quality considerations.• Hysterectomy fractions are derived from the 2001 National Health Survey.• Indigenous status is not collected by cervical cytology registers.
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Institutional environment:	The National Cervical Screening Program (NCSP) is a joint program of the Australian Government and State and Territory governments. The target age group is women aged 20–69 years.
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Cervical cytology registries in each State and Territory are maintained by jurisdictional Program managers. Data are supplied to the registries from pathology laboratories. Data from cervical cytology registers are provided to the AIHW annually in an aggregated format.

The NCSP is monitored annually. Results are compiled and reported at the national level by the AIHW in an annual Cervical screening in Australia report.

Timeliness:	Data available for the 2011 COAG Reform Council report are based on the two-year calendar period 1 January 2008 to 31 December 2009. Data are presented as a rate for the two-year period to reflect the recommended screening interval.
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Accessibility:	The NCSP annual reports are available via the AIHW website where they can be downloaded free of charge.
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Interpretability:	While numbers of women screened are easy to interpret, calculation of age-standardised rates with allowance for the proportion of the population who have had a hysterectomy is more complex and the concept may be confusing to some users. Information on how and why age-standardised rates have been calculated and how to interpret them as well as the hysterectomy fraction is available in all AIHW NCSP monitoring reports, for example, Cervical screening in Australia 2006-2007.
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Relevance:

The data used to calculate this indicator are accurate and of high quality. The cervical cytology registers collect information on all Pap tests undertaken in Australia except where women advise the clinician they do not wish to have their data collected. The use of ERP based on Census data for denominators provide the most comprehensive data coverage possible. The data are entirely appropriate for this indicator.

For participation nationally, the numerator is the number of women aged 20–69 years screened in each State and Territory in 2008 and 2009, supplied as aggregated data, with the level of aggregation being at postcode level, by each State and Territory. The denominator is the average of the 2008 and 2009 ABS ERP for women aged 20–69 years, adjusted to exclude the estimated number of women who have had a hysterectomy, using national hysterectomy fractions.

Caution is required when examining differences across states and territories of Australia due to the substantial differences in population, area, geographic structure, policies and other factors. Due to issues with cross-boundary postcodes, and beyond the control of the State and Territory cervical cytology registers involved, it was not possible to accurately estimate participation in cervical screening by remoteness area or socioeconomic status for South Australia with the aggregated data that are received for national monitoring purposes. However, Australian numbers and rates include data for all states and territories.

For participation by remoteness and socioeconomic status, the numerator is the number of women screened in 2008 and 2009 aged 20–69 years who reside in each of the remoteness and socioeconomic status categories. A postal area (POA) to statistical local area (SLA) to remoteness concordance and a POA to SLA to socioeconomic status concordance are used to allocate women screened to remoteness and socioeconomic status categories based on their postcode. Aggregated postcode data are supplied from each State and Territory, and totalled to generate the number of women screened by remoteness and socioeconomic status at the national level. The denominator is the average of the 2008 and 2009 ABS ERP for women aged 20–69 years in each remoteness and socioeconomic status category, generated by applying an SLA to remoteness concordance and an SLA to socioeconomic status concordance to SLA ERP, adjusted to exclude the estimated number of women who have had a hysterectomy, using national hysterectomy fractions.

Caution is required when examining differences across remoteness and socioeconomic status categories for several reasons. First, while the postcode of women screened is interpreted as postcode of residence, some women may supply 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, the accuracy of both ASGC and SEIFA IRSD diminishes due to subsequent changes in demographics within some postcode boundaries, and some boundaries themselves may have changed over time. Third, many valid postcodes are omitted from the socioeconomic status concordance in particular, meaning that many screened women are unable to be allocated to a socioeconomic status category (the remoteness concordance contains a more comprehensive list of postcodes, but some women will still be missed).

Breakdown of remoteness and socioeconomic status categories by State and Territory may introduce an additional source of inaccuracy, since screened women, once allocated a category, also need to be allocated to the state or territory. Because some postcodes cross State and Territory boundaries, there is the potential for some women to be allocated to a state or territory different to the one in which they reside.

Furthermore, a relatively large number of South Australian women who reside in border areas were allocated a postcode either entirely or partly within the Northern Territory (approximately 2 per cent of all South Australian women aged 20–69 years screened). Therefore, it was necessary to re allocate these women from the Northern Territory to South Australia to estimate totals for these two jurisdictions.

Accuracy:

This indicator is calculated on data that have been supplied to the AIHW by individual State and Territory registers. Prior to publication, the results of analyses are referred back to states and territories for checking and clearance. Any errors found by states and territories are corrected once confirmed. Thus participation by State and Territory, based on the state or territory in which the woman was screened, is both robust and readily verified.

However, states and territories are unable to check or verify either participation by remoteness or participation by socioeconomic status, since their data, once supplied to the AIHW, are nationalised and thereby lose their state or territory identity. Further, while previous reports can be used to verify these data at the national level, data of this kind have never before been disaggregated by State and Territory across all of Australia, and would thus be unable to be verified.

The need to apply concordances to numerators and denominators introduces a level of inaccuracy. As COAG denominator populations for disaggregation by socioeconomic status and remoteness are based on SLA, the numerator counts for this indicator also need to be based on SLA. Since the allocation of women screened is based on the woman's postcode, this required the generation of a POA to SLA to remoteness concordance and a POA to SLA to socioeconomic status concordance. However, postcode data are limiting. These concordances are based on 2006 boundaries and classifications, while the current data for this indicator are for 2008-2009. Overall, many postcodes may not have valid SLA-based socioeconomic status or remoteness data available, and many may have changed classification group since 2006 and be giving inaccurate information now.

There are several sources of missing values. First, the state or territory may not have a postcode for all women screened, or the postcode supplied may not be valid. For those women that do have a valid postcode, many cannot be allocated to a remoteness or socioeconomic category, as their postcode may not be included in the concordances — this is a greater issue for socioeconomic status, since this concordance contains fewer postcodes than does the remoteness concordance. Further, this may affect some remoteness and socioeconomic categories more than others.

The number of women screened in 2008-2009 that are unable to be allocated to a category are as follows (based on state or territory of postcode):

Remoteness: 5150 women excluded (NSW: 2575 excluded; Vic: 204 excluded; Qld: 1348 excluded; WA: 560 excluded; Tas: 12 excluded; ACT: 396 excluded; NT: 55 excluded).

Socioeconomic status: 23 832 women excluded (NSW: 2856 excluded; Vic: 2913 excluded; Qld: 1776 excluded; WA: 7155 excluded; Tas: 173 excluded; ACT: 1008 excluded; NT: 7951 excluded).

No adjustments have been made to account for excluded women in the data. Women residing in postcodes that cross boundaries are allocated to one state or territory according to ABS classifications. Women are counted only once in the two-year period 1 January 2008 to 31 December 2009, even if they were screened more than once during this period. All women screened in each State and Territory are included in order to present the most accurate national picture of cervical screening. This may lead to a very small amount of double-counting, since one woman could be screened, and therefore counted, in two different jurisdictions over this two-year period. However, any effects of double-counting are negligible. Women who opt off the cervical cytology register are not included in the participation data, but this is thought to only exclude around 1 per cent of all women screened.

No cell suppression was required for the data presented.

The Estimated Resident Population and 2001 National Health Survey (used to adjust population data for the proportion of women who have had a hysterectomy) are provided by the ABS.

Coherence:

Some of these data are published annually in Program monitoring reports prepared by the AIHW. The most recent of these reports is the Cervical screening in Australia 2007-2008 data report, published in 2010. This report includes participation by State and Territory and participation by remoteness and socioeconomic status categories nationally for the two year period 2007-2008. However, there were differences in the concordances used and data included compared to this report. Data for 2008-2009 will not be published until 2011, and while also covering participation by State and Territory and participation by remoteness and socioeconomic status categories nationally, will differ from the current report due to slightly different methods (adjustments to account for missing postcodes; potential for different hysterectomy fractions to be used to adjust all denominators) and categories (socioeconomic status quintiles rather than deciles) that are considered optimal for national monitoring.

Further, State and Territory participation in Cervical screening in Australia is based on state or territory of screen, rather than state or territory of residence, since this is more appropriate for program monitoring.

Data products

Implementation start date: 09/06/2011

Relational attributes

Related metadata references:

Supersedes [National Healthcare Agreement: P11-Cervical screening rates \(National Cervical Screening Program\), 2010 QS](#)

- [Health](#), Superseded 08/06/2011

Has been superseded by [National Healthcare Agreement: P1 11-Cervical screening rates, 2012 QS](#)

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