

Data Quality Statements

National Tobacco Strategy 2012–2018: 2013 National Drug Strategy Household Survey

Relational attributes

Indicators linked to this Quality statement:

Indicator 2 (supplementary); Indicator 4 (primary); Indicator 6 (primary); Indicator 7 (primary); Indicator 9 (primary); Indicator 10 (primary); Indicator 11 (primary); Indicator 12 (primary).

Data quality

Institutional environment:

The Australian Institute of Health and Welfare (AIHW) is a major national agency set up by the Australian Government under the *Australian Institute of Health and Welfare Act 1987* to provide reliable, regular and relevant information and statistics on Australia's health and welfare. It is an independent corporate Commonwealth entity established in 1987, governed by a management Board, and accountable to the Australian Parliament through the Health portfolio.

The AIHW aims to improve the health and wellbeing of Australians through better health and welfare information and statistics. It collects and reports information on a wide range of topics and issues, ranging from health and welfare expenditure, hospitals, disease and injury, and mental health, to ageing, homelessness, disability and child protection.

The Institute also plays a role in developing and maintaining national metadata standards. This work contributes to improving the quality and consistency of national health and welfare statistics. The Institute works closely with governments and non-government organisations to achieve greater adherence to these standards in administrative data collections to promote national consistency and comparability of data and reporting.

The *Australian Institute of Health and Welfare Act 1987*, in conjunction with compliance to the *Privacy Act 1988*, (Cth) ensures that the data collections managed by the AIHW are kept securely and under the strictest conditions with respect to privacy and confidentiality.

For further information see the AIHW website.
<www.aihw.gov.au>.

The National Drug Strategy Household Survey (NDSHS) is the leading survey of licit and illicit drug use in Australia. The 2013 survey was the 11th conducted under the auspices of the National Drug Strategy. Previous surveys were conducted in 1985, 1988, 1991, 1993, 1995, 1998, 2001, 2004, 2007 and 2010.

The Australian Government Department of Health commissioned the AIHW to manage the 2013 survey, and the AIHW commissioned Roy Morgan Research to undertake the data collection. A Technical Advisory Group comprising experts in tobacco, alcohol and other drug data collection and research supported the AIHW in the management of the survey.

Timeliness:

The NDSHS is conducted approximately every three years over a three-four month period. The 2013 data were collected between late-July and early December 2013.

A preliminary data set was received by the AIHW in late-January 2014 and initial data checks were completed in early February 2014.

Key findings from the 2013 NDSHS were released on 17 July 2014 and the detailed findings report was released on 25 November 2014.

Accessibility:

Results from the 2013 NDSHS are available on the AIHW website. Key findings can be found in the web compendium: Highlights from the 2013 survey and full published results can be found in the 2013 National Drug Strategy Household Survey report.

Users can request data not available online or in reports via the Digital and Media Communications Unit on (02) 6244 1000 or via email to info@aihw.gov.au. Requests that take longer than half an hour to compile are charged for on a cost-recovery basis.

A confidentialised unit record file is available for 3rd party analysis through the Australian Data Archive. Access to the master unit record file may be requested through the AIHW Ethics Committee.

Interpretability:

Information to aid in interpretation of 2013 NDSHS results may be found in Chapter 1 of the 2013 NDSHS report titled 'Introduction'.

In addition, the 2013 Technical Report, code book and other supporting documentation are available through the Australian Data Archive website or may be requested from AIHW.

Relevance:

Scope and coverage

The NDSHS collects self-reported information on tobacco, alcohol and illicit drug use and attitudes from persons aged 12 years and over.

Excluded from sampling were non-private dwellings (hotels, motels, boarding houses, etc.) and institutional settings (hospitals, nursing homes, other clinical settings such as drug and alcohol rehabilitation centres, prisons, military establishments and university halls of residence). Homeless

persons were also excluded as well as the territories of Jervis Bay, Christmas Island and Cocos Island.

The exclusion of people from non-private dwellings and institutional settings, and the difficulty in reaching marginalised people are likely to have affected estimates.

The 2013 NDSHS was designed to provide reliable estimates at the national level. The survey was not specifically designed to obtain reliable national estimates for Aboriginal and Torres Strait Islander people, as there was no target sample size for Indigenous Australians.

Geographic detail

In 2013, data were coded to the Statistical Area Level 1 (SA1). Data are generally published at the national level with a selection of data published at the State/Territory and Remoteness Area levels.

Indicator 2: The 2013 NDSHS collected self-reported information on whether a person had smoked at least 100 cigarettes (including manufactured (packet) cigarettes or roll-your-own cigarettes) or the equivalent amount of tobacco in their life. This indicator is based on question D6 of the 2013 NDSHS questionnaire. This question was asked to all respondents but for the purpose of this Indicator, is only reported for people aged 18–24.

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 4: This indicator is based on the response to question D17 of the 2013 NDSHS questionnaire. All persons who reported that they had smoked any form of tobacco in the previous 12 months were asked if they had attempted to change their smoking behaviour in the previous 12 months – either attempted to quit, changed to a brand with lower tar or nicotine content or reduced the amount they smoked in a day. This indicator only focussed on the people who attempted to quit and includes 2 separate measures – successfully quit for a month or longer, and tried to quit but were not successful – and an overall measure of ‘any quit attempt’. Any quit attempt includes all persons who either successfully quit for a month or longer or tried to quit but were not successful. The NDSHS was not specifically designed to obtain reliable national estimates for Aboriginal and Torres Strait Islander people and results may not be representative of the Aboriginal and Torres Strait Islander population. Aboriginal and Torres Strait Islander estimates should be interpreted with caution.

Indicator 6: This indicator is based on question D1 of the 2013 NDSHS questionnaire. This question is asked to all respondents and the respondent answers this question for the entire household. The respondent is asked if any persons in

the last 12 months, either themselves or another member of the household, smoked at least one cigarette, cigar or pipe of tobacco per day in the home. The respondent may choose from 3 options – Yes, inside the home; No, only smoke outside the home; No one at home regularly smokes. As this question was answered by the respondent speaking for his/her entire household, a different weight was used to estimate the proportion of households represented by the sample responses. The denominator for this question was based on 3 questions from the 2013 NDSHS DEM5, DEM6B, DEM6C and DEM7 to determine if a household contained dependent children and if that household contains single parents or couples. Disaggregations for this indicator were limited as most disaggregations relate to the respondent and not the child or the household. The National Aboriginal and Torres Strait Islander Social Survey (NATSISS; baseline) and National Aboriginal and Torres Strait Islander Health Survey (midpoint) are used as supplementary data for the Aboriginal and Torres Strait Islander population (see AATSIHS data quality statement for more information).

Exposure to tobacco smoke in the home for 15–17 year olds is not covered by Indicators 6 or 7 and is therefore a data gap.

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 7: This indicator is based on question D1 of the 2013 NDSHS questionnaire. This question is asked to all respondents and the respondent answers this question for the entire household. The respondent is asked if any persons in the last 12 months, either themselves or another member of the household, smoked at least one cigarette, cigar or pipe of tobacco per day in the home. The respondent may choose from 3 options – Yes, inside the home; No, only smoke outside the home; No one at home regularly smokes. This indicator relates to the smoking status of the respondent. A person is considered to be a non-smoker if at the time of the survey they reported not smoking (includes ex-smokers and never smokers). The desired outcome over time for this indicator is a decrease in proportion.

The NATSISS baseline) and National Aboriginal and Torres Strait Islander Healthy Survey (midpoint) are used as supplementary data for the Aboriginal and Torres Strait Islander population (see NATSISS and AATSIHS data quality statements for more information).

Indicator 9: This indicator is derived from question D4 of the 2013 NDSHS. All persons who have ever smoked a full cigarette were asked what age they were when they smoked their first full cigarette. This indicator is presented as a mean (average) age. This indicator was restricted to the age range of

14–24 to reduce respondent recall bias. The desired outcome over time for this indicator is an increase in the average age.

Indicator 10: This indicator is derived from question D3 of the 2013 NDSHS. All persons aged 18 or older are asked to report if they have ever smoked a full cigarette. The Australian Secondary Schools Alcohol and Drug (ASSAD) survey is used as supplementary data for the 12–17 year olds population and is based on a different definition (See ASSAD data quality statement for more information).

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 11: This indicator is derived from a number of questions but predominantly based on question D11 in the 2013 NDSHS questionnaire. The denominator is based on the number of ex-smokers aged 18 years or older. A person is only considered to be an ex-smoker if they have smoked at least 100 cigarettes in their lifetime and have not reported smoking for at least 12 months. All ex-smokers are asked what their age was when they last smoked. This indicator is presented as a mean (average) age. Many of the disaggregations are influenced by age and it is difficult to make comparisons between sub-population groups.

The desired outcome over time for this indicator is a decrease in average age over time.

An additional measure of quit proportion before the age of 45 is also included for this indicator. This measure is also predominantly based on question D11 in the 2010 NDSHS questionnaire. The numerator for this indicator is the number of ever-smokers aged 45–74 who reported not smoking for at least 12 months and quit smoking before the age of 45. The denominator is the number of ever-smokers aged 45–74. A person is considered to be an ever-smoker if they have smoked at least 100 cigarettes in their lifetime.

Current smokers in this age range can never be included in the numerator for this measure. Changes will not be easily detected over short time periods and therefore reporting for this measure would be more appropriate on a less-frequent basis (e.g. a minimum of 10 years between reporting).

Indicator 12: This indicator is derived from a number of questions in the 2013 NDSHS questionnaire (D2, D3, D6, D7, D10). The denominator for this indicator are all persons aged 18 or older who have smoked at least 100 cigarettes in their lifetime. The numerator for this indicator are all persons aged 18 or older who have smoked at least 100 cigarettes in their lifetime but reported not smoking in the previous 12 months. The desired outcome over time for this indicator is an increase in proportion.

Accuracy:

Sample design

The sample was stratified by region (15 strata in total – capital city and rest of state for each state and territory, with the exception of the Australian Capital Territory, which operated as one stratum). To produce reliable estimates for the smaller states and territories, sample sizes were boosted in Tasmania, the Australian Capital Territory and the Northern Territory.

The over-sampling of lesser populated states and territories produced a sample that was not proportional to the state/territory distribution of the Australian population aged 12 years or older. Weighting was applied to adjust for imbalances arising from execution of the sampling and differential response rates, and to ensure that the results relate to the Australian population.

Sampling error

The measure used to indicate reliability of individual estimates reported in 2013 was the relative standard error (RSE). Only estimates with RSEs of less than 25% are considered sufficiently reliable for most purposes. Results subject to RSEs of between 25% and 50% should be considered with caution and those with relative standard errors greater than 50% should be considered as unreliable for most practical purposes.

Non-sampling error

In addition to sampling errors, the estimates are subject to non-sampling errors. These can arise from errors in reporting of responses (for example, failure of respondents' memories, incorrect completion of the survey form), the unwillingness of respondents to reveal their true responses and the higher levels of non-response from certain subgroups of the population.

Reported findings are based on self-reported data and not empirically verified by blood tests or other screening measures.

Response rates and contact rates

Overall, contact was made with 48,579 in-scope households, of which 23,855 questionnaires were categorised as being complete and usable, representing a response rate for the 2010 survey of 49.1%, slightly lower than the drop and collect component of the 2010 survey (50.6%).

Some survey respondents did not answer all questions, either because they were unable or unwilling to provide a response. The survey responses for these people were retained in the sample, and the missing values were recorded as not answered. No attempt was made to deduce or impute these missing values.

A low response rate does not necessarily mean that the results are biased. As long as the non-respondents are not systematically different in terms of how they would have answered the questions, there is no bias. Given the nature of the topics in this survey, some non-response bias is expected. If non-response bias in the NDSHS is to be eliminated as far as possible, there would need to be additional work conducted to investigate the demographic profile of the non-respondents and the answers they may have given had they chosen to respond.

Indigenous Data

The survey was not specifically designed to obtain reliable national estimates for Aboriginal and Torres Strait Islander people, as there was no target sample size for Indigenous Australians. In the 2013 NDSHS, 1.9% of the sample (or approximately 461 respondents) identified as being of Aboriginal or Torres Strait Islander origin. The sample size for Indigenous Australians was smaller than anticipated based on population estimates, and so estimates based on this population group should be interpreted with caution.

The total population of Aboriginal and Torres Strait Islander people forms a very small part of the total Australian population. At the August 2011 census, the Aboriginal and Torres Strait Islander population was officially calculated at 670,000 people, or 2.1% of the total Australian population (ABS 2008b). At that time, about one-third (35%) of the Aboriginal and Torres Strait Islander population lived in Major cities, 22% in Inner regional areas, 22% in Outer regional areas, 8% in Remote areas and 14% in Very remote areas (ABS 2013).

The Aboriginal and Torres Strait Islander population living in Very remote areas shows other differences to populations living in Major cities including in household structure, size and age distribution. The NDSHS sample design is stratified by region and not by remoteness. Due to this sampling design, the NDSHS sample of Indigenous Australians living in Very remote areas comprised of 9% of the population in those regions compared with 14% of Indigenous Australians living in Very remote areas based on the 2011 Census (ABS 2012). Therefore, Aboriginal and Torres Strait Islander people in Very remote areas are under represented, and it becomes difficult to generalise results from Major cities and regional areas to the whole Indigenous population.

The sampling method employed for the NDSHS invited one participant aged over 12 years to take part in the survey. The sample strategy did not take into account the size of the household selected. This is an issue for respondent selection for Indigenous Australians, as often they live in larger households compared with non-Indigenous Australians. This

selection process means that Aboriginal and Torres Strait Islander people are proportionately less likely to be selected.

The NDSHS uses a self-completion questionnaire, and requires good comprehension of the English language (as it is not translated into other languages) and the ability to follow instructions. Practicality of the survey design meant that some Aboriginal communities and those with low levels of English literacy may have been excluded.

Indicators

Indicator 2: This indicator has acceptable levels of sampling error.

Indicator 4: This indicator has acceptable levels of sampling error.

Indicator 6: This indicator has acceptable levels of sampling error except for *Remote or Very remote area* which has an RSE between 25% and 50% and should be used with caution.

Indicator 7: This indicator has acceptable levels of sampling error.

Indicator 9 This indicator has acceptable levels of sampling error except for *Remote or Very remote areas*, single households with dependent children, people whose highest level of attainment was year 11 which has an RSE between 25% and 50% and should be used with caution.

Indicator 10: This indicator has acceptable levels of sampling error.

Indicator 11: This indicator has acceptable levels of sampling error.

Indicator 12: This indicator has acceptable levels of sampling error.

Coherence:

Methodology

Fieldwork was conducted between July and December 2013, slightly later than in previous wave. The collection period also coincided with the 2013 federal election, although no questionnaires were placed on that day.

Questionnaire

The 2013 questionnaire was modelled on the 2010 version, to maintain maximum comparability. However, some refinements were made to ensure the questions remained relevant and useful, including moving some of the demographic questions from the end of the questionnaire to the start of the questionnaire. For more information on questionnaire changes in 2013 see Chapter 10 of the 2013 NDSHS report.

Comparison with other collections

Comparisons of data from previous waves of the NDSHS, the Australian Health Survey and the Australian School Student's Alcohol and other Drug Survey show variations in estimates. Differences in scope, collection methodology and design may account for this variation and comparisons between collections should be made with caution.

There is more than one data source for information about tobacco, alcohol and other drug use among Aboriginal and Torres Strait Islander people. The most common data sources used for reporting the use of tobacco by Indigenous Australians are the NATSISS and the Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS).

Differences between the surveys vary considerably and include the extent to which remote areas were surveyed, the age groups included and the sample sizes. The questions asked in the surveys also differ considerably. So the results from the surveys are not directly comparable. It is important to keep this in mind when considering data from each of the surveys – results that may initially seem to contradict one another may be simply applicable to different groups within the population.

The 2012–13 AATSIHS estimated that around 41% of Indigenous Australians aged 15 years or older were daily smokers (ABS 2013), while the 2013 NDSHS estimated that figure to be about 32%.

Comparisons between Indigenous and non-Indigenous Australians can be made using data from the AATSIHS results and the 2011–12 National Healthy Survey. The surveys showed that after adjusting for differences in age structure between the two populations, Aboriginal and Torres Strait Islander people aged 15 years and over were 2.6 times as likely as non-Indigenous people to be current daily smokers (39.8% compared with 15.4%, respectively). In comparison, results from the 2013 NDSHS showed that Indigenous Australians aged 14 years or older were 2.5 times as likely as non-Indigenous Australians to smoke daily (31.6% compared with 12.4%). So while the estimated proportion of smokers from the NDSHS is lower than the AATSIHS and National Health Survey estimates, the relative proportions are very similar.

Remoteness areas

The Australian Statistical Geography Standard (ASGS) is the latest geographical standard developed by the ABS and released in 2011. The ASGS replaces the Australian Standard Geographical Classification (ASGC). Remoteness areas defined by the 2011 ASGS are used for remoteness disaggregations when analysing data from with a reference period of 2011 onwards.

Remoteness Areas defined using 2006 ASGC and 2011 ASGS are considered comparable.

SEIFA

SEIFA is a product developed by the ABS that ranks geographic areas in Australia according to relative socioeconomic advantage and disadvantage. The ABS broadly defines relative socioeconomic advantage and disadvantage in terms of “*people’s access to material and social resources and their ability to participate in society*”.

The SEIFA indexes are based on information from the 5-yearly Census of Population and Housing. Therefore the 2006 SEIFA was used for reporting against the 2010 data and the 2011 SEIFA was used for reporting against the 2013 data. The Index of Relative Socioeconomic Advantage and Disadvantaged were used for all disaggregations.

National Tobacco Strategy 2012–2018: 2014–15 National Health Survey

Relational attributes

Indicators linked to this Quality statement: Indicator 3 (primary); Indicator 8ii (primary); Indicator 14 (primary).

Data quality

Institutional environment: The Australian Bureau of Statistics (ABS) operates within a framework of the *Census and Statistics Act 1905* and the *Australian Bureau of Statistics Act 1975*. These ensure the independence and impartiality from political influence of the ABS, and the confidentiality of respondents. For more information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

Timeliness: The 2014–15 NHS was conducted throughout Australia from July 2014 to June 2015. Previous surveys were conducted in 1989–90, 1995, 2001, 2004–05, 2007–08 and 2011–12.

Accessibility: See National Health Survey: First Results, 2014–15 National Health Survey, Summary of Results (cat. no. 4364.0) for an overview of results from the NHS.

Specialised data tables and CURFs are also available on request.

Interpretability: Care has been taken to ensure that results are as accurate as possible. This includes thorough design and testing of the questionnaire, interviews being conducted by trained ABS Interviewers, and quality control procedures throughout data

collection, processing and output. There remain, however, other factors which may have affected the reliability of results, and for which no specific adjustments can be made. The following factors should be considered when interpreting these estimates:

information recorded in the survey is essentially 'as reported' by respondents, and hence may differ from information available from other sources or collected using different methodology; for example, information about health conditions is self-reported and, while not directly based on a diagnosis by a medical practitioner in the survey, respondents were asked whether they had ever been told by a doctor or nurse that they had a particular health condition. Conditions which have a greater effect on people's wellbeing or lifestyle, or those specifically mentioned in survey questions, are expected in general to have been better reported than others. Some respondents may have provided responses that they felt were expected, rather than those that accurately reflected their own situation. Every effort has been made to minimise such bias through the development and use of appropriate survey methodology.

Many health-related issues are closely associated with age therefore the relative differences between groups should be interpreted with caution. Age-standardised rates have been provided for Indicator 3 – headline result and state and territory results only. State and territory data, and non-Indigenous data for Indicator 3 have been age-standardised to the 2001 total Australian population to account for differences in the age structures of the States and Territories and the Aboriginal and Torres Strait Islander and non-Indigenous population. Age-standardised rates should be used to assess the relative differences between groups, not to infer the rates that actually exist in the population.

Relevance:

Scope of the survey

The 2014–15 NHS was conducted from a sample of approximately 14,700 private dwellings across Australia.

Urban and rural areas in all states and territories were included, while Very remote areas of Australia and discrete Aboriginal and Torres Strait Islander communities were excluded. These exclusions are unlikely to affect national estimates, and will only have a minor effect on aggregate estimates produced for individual states and territories, excepting the Northern Territory where the population living in Very remote areas accounts for around 23% of persons.

Non-private dwellings such as hotels, motels, hospitals, nursing homes and short-stay caravan parks were excluded from the survey. This may affect estimates of the number of people with some long-term health conditions (for example,

conditions which may require periods of hospitalisation).

Within each selected dwelling, one adult (18 years and over) and one child (0–17 years) were randomly selected for inclusion in the survey. This sub-sampling within households enabled more information to be collected from each respondent than would have been possible had all usual residents of selected dwellings been included in the survey. For the purposes of the NHS, a household was defined as one or more persons, at least one of whom is aged 18 years and over, usually resident in the same private dwelling.

The following groups were excluded from the survey:

- certain diplomatic personnel of overseas governments, customarily excluded from the Census and estimated resident population;
- persons whose usual place of residence was outside Australia;
- members of non-Australian Defence forces (and their dependents) stationed in Australia; and
- visitors to private dwellings.

Indicator 3: The NHS 2014–15 collected self-reported information on smoker status from persons aged 18 years and over. This refers to the smoking of tobacco, including manufactured (packet) cigarettes, roll your-own cigarettes, cigars and pipes, but excluding chewing tobacco and smoking of non-tobacco products. The ‘current daily smoker’ category includes respondents who reported at the time of interview that they regularly smoked one or more cigarettes, cigars or pipes per day. The desired outcome over time for this indicator is a decrease in proportion.

Indicator 8ii: The 2011 Socio-Economic Indexes for Areas (SEIFA) and Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) was used for this Indicator for the 2011–12 and 2014–15 data. The desired outcome over time for this indicator is a decrease in proportion.

Indicator 14: The NHS 2014–15 collected self-reported information on smoker status from persons aged 18 years and over. This refers to the smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, but excluding chewing tobacco and smoking of non-tobacco products. The ‘current smoker’ category includes respondents who reported at the time of interview that they smoked cigarettes, cigars or pipes.

An increase in this indicator is not necessarily negative and the direction of progress is uncertain. An increase may reflect a greater proportion of a particular group smoking less frequently and a decrease may reflect a reduction in both daily

and occasional smokers. Therefore, interpreting trend data for this indicator needs to be considered in the context of the results for indicator 3..

Accuracy:

Sample design

Dwellings were selected at random using a multistage area sample of private dwellings. The initial sample selected for the survey consisted of approximately 21,850 dwellings. This was reduced to a sample of 17,958 after sample loss (for example, households selected in the survey which had no residents in scope of the survey, vacant or derelict buildings, buildings under construction). Of those remaining dwellings, 14,723 (or 82.0%) were fully or adequately responding, yielding a total sample for the survey of 19,259 persons.

Sampling error

As it is drawn from a sample survey, the indicator is subject to sampling error. Sampling error occurs because only a small proportion of the population is used to produce estimates that represent the whole population. Sampling error can be reliably estimated as it is calculated based on the statistical methods used to design surveys. Rates should be considered with reference to their RSEs. Estimates with RSEs between 25 per cent and 50 per cent should be used with caution. Estimates with RSEs greater than 50 per cent are generally considered too unreliable for general use and have not been presented in the baseline report.

Indicators

Indicator 3: This indicator has acceptable levels of sampling error (RSE less than 25%) except for:

- the country of birth disaggregation – Italy had an RSE greater than 50% and has not been published; China, Greece, India, other Oceania and Antarctica, North-East Asia, Southern and Central Asia, the Americas and Other (sub-Saharan Africa) have RSE between 25% and 50% and should be used with caution.
- people whose highest level of attainment was year 10 or below or people who never attended school (RSE greater than 50%, results have not been published).

Indicator 8ii: This indicator has acceptable levels of sample error except for people aged 75 or older, single parent with dependent children (highest SES only), some educational levels, some remoteness areas and unemployed people.

Indicator 14: This indicator has acceptable levels of sampling error for the headline results but most disaggregation had some reliability issues – age and sex breakdowns, country of birth, employment status, education level, household status, remoteness area and socioeconomic area.

Coherence: Other non-ABS collections, such as the National Drug Strategy Household Survey (NDSHS), report estimates of smoker status. Results from the recent NDSHS in 2013 show slightly lower estimates for current daily smoking than in the 2011–12 AHS. These differences may be due to the greater potential for non-response bias in the NDSHS and the differences in collection methodology.

National Tobacco Strategy 2012–2018: 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey

Relational attributes

*Indicators linked to this
Quality statement:* Indicator 6 (supplementary); Indicator 7 (supplementary);
Indicator 8i (primary); Indicator 14 (supplementary).

Data quality

Institutional environment: The ABS operates within a framework of the *Census and Statistics Act 1905* and the *Australian Bureau of Statistics Act 1975*. These ensure the independence and impartiality from political influence of the ABS, and the confidentiality of respondents. For more information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

Data sources: The 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) is a health survey of Indigenous Australians conducted by the ABS. The AATSIHS is made up of three components:

- National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)
- National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey (NATSINPAS)
- National Aboriginal and Torres Strait Islander Health Measures Survey (NATSIHMS).

All people selected in the AATSIHS were selected to participate in either the NATSIHS or the NATSINPAS. The NATSIHS and NATSINPAS contain content that is common to both surveys (called the ‘Core component’) and therefore information for these data items are available for all participants in the AATSIHS. For Indicators 6 and 7, the data was only collected in the NATSIHS and is therefore based on a smaller sample size. For all other indicators, data are based on the Core component.

For more information on the structure of the AATSIHS, see *Structure of the Australian Aboriginal and Torres Strait Islander Health Survey*.

This survey, which was conducted in remote and non-remote areas throughout Australia, was designed to collect a range of information from Indigenous Australians about health-related issues, including health status, risk factors and actions, and socioeconomic circumstances. This collected new information on nutrition and physical activity, as well as the first national biomedical information collection

Timeliness:

The AATSIHS is conducted over a 12 month period, approximately every 6 years.

Results from the 2012–13 NATSIHS component of the AATSIHS were released in November 2013. Results from the Core component (NATSIHS and NATSINPAS) of the 2012–13 AATSIHS were released in June 2014.

Interpretability:

Information to aid interpretation of the data is available on the ABS website from the Australian Aboriginal and Torres Strait Islander Health Survey: Users' Guide, 2012–13 (Cat. no. 4727.0.55.002).

Accessibility:

The data for NATSIHS are available from the ABS website in the publication Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012–13 (Cat. no. 4727.0.55.001). See Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results (Cat. no. 4727.0.55.006) for results from the Core component of the AATSIHS. Other information from the AATSIHS is also available from the ABS website, www.abs.gov.au.

Many health-related issues are closely associated with age; therefore data for indicator 8i have been age-standardised to the 2001 total Australian population to account for differences in the age structures of the States and Territories. Age-standardised rates should be used to assess the relative differences between groups, not to infer the rates that actually exist in the population.

Relevance:

Indicator 6 (supplementary): This question is asked to all respondents and the respondent answers this question for the entire household. The respondent is firstly asked if anyone in the household smokes regularly, that is, at least one (cigarette) a day. A second question is then asked about whether anyone usually smokes inside the house? Therefore this measure is different to that reported for the general population (see NDSHS data quality statement for more information).

The proportion reported is the proportion of daily smokers who smoke inside the house but does not necessarily mean they smoke daily inside the house. As this question was answered by the respondent speaking for his/her entire

household, a different weight was used to estimate the proportion of households represented by the sample responses.

The numerator for this Indicator is different for the Indigenous population. The numerator is the number of households with a daily smoker that smokes inside the home that contain dependent children aged 0–14 years. The denominator is all households containing dependent children aged 0–14.

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 7 (supplementary): This question is asked to all respondents and the respondent answers this question for the entire household. The respondent is firstly asked if anyone in the household smokes regularly, that is, at least one (cigarette) a day. A second question is then asked about whether anyone usually smokes inside the house? Therefore this measure is different to that reported for the general population (see NDSHS data quality statement for more information).

The proportion reported is the proportion of non-smokers living with a daily smoker who smokes inside the house but does not necessarily mean they smoke daily inside the house. As this question was answered by the respondent speaking for his/her entire household, a different weight was used to estimate the proportion of households represented by the sample responses.

The numerator for this Indicator is different for the Indigenous population. The numerator is the number of non-smokers aged 18 years or older who reported living in a household with daily smoker who smokes inside the home. The denominator is total number of non-smokers aged 18 years or older.

The desired outcome over time for this indicator is a decrease in proportion.

Exposure to tobacco smoke in the home for 15–17 year olds is not covered by Indicators 6 or 7 and is therefore a data gap.

Indicator 8i: The 2012–13 AATSIHS collected self-reported information on smoker status from persons aged 18 years and over. This refers to the smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes. For the 2012–13 survey this also includes chewing tobacco, this was not included in the 2008 NATSISS. The current daily smoker category includes respondents who reported at the time of interview that they regularly smoked one or more cigarettes, cigars or pipes per day, or chewed tobacco daily. The desired outcome over time for this indicator is a decrease in proportion.

Indicator 14: The 2012–13 AATSIHS collected self-reported information on smoker status from persons aged 18 years and over. This refers to the smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, and included chewing tobacco, this was not included in the 2008 NATSISS. The ‘current smoker’ category includes respondents who reported at the time of interview that they smoked cigarettes, cigars or pipes.

An increase in this indicator is not necessarily negative and the direction of progress is uncertain. An increase may reflect a greater proportion of a particular group smoking less frequently and a decrease may reflect a reduction in both daily and occasional smokers. Therefore, interpreting trend data for this indicator needs to be considered in the context of the results for indicator 8ii.

Accuracy:

The AATSIHS was conducted in all States and Territories, including Very remote areas. Non-private dwellings such as hotels, motels, hospitals, nursing homes and short-stay caravan parks were excluded from the survey. The response rate for the Core component of the 2012–13 AATSIHS was 80 per cent. Results are weighted to account for non-response. Results are weighted to account for non-response.

The total sample size for the Core component of the AATSIHS 13,000 people. The sample size for the NATSIHS component was 9,300 people.

Sampling error

As they are drawn from a sample survey, data for the indicator are subject to sampling error. Sampling error occurs because only a small proportion of the population is used to produce estimates that represent the whole population.

Sampling error can be reliably estimated as it is calculated based on the scientific methods used to design surveys. Rates should be considered with reference to their

Relative Standard Error (RSE). Estimates with RSEs between 25 per cent and 50 per cent should be used with caution. Estimates with RSEs greater than 50 per cent are generally considered too unreliable for general use.

Changes to the questionnaire

Smoking questions were changed in the 2012–13 AATSIHS to include chewing tobacco in order to account for potential high levels of use among Aboriginal and Torres Strait Islander people.

Indicator 6: Sampling error for rates of households containing dependent children who live with a daily smoker who smokes inside the home were acceptable.

Indicator 7: Sampling error for rates of adult non-smokers who lived with a daily smoker who smoked inside the home were acceptable.

Indicator 8i: Sampling error for rates of daily smokers were acceptable except for Indigenous people with a postgraduate degree or graduate diploma/graduate certificate, and those speaking a language other than English or Aboriginal or Torres Strait Islander languages.

Indicator 14: Sampling error for rates of smokers who smoked occasionally (weekly or less than weekly) were acceptable.

Coherence:

The methods used to construct the indicators are consistent and comparable with other collections. Data for Indicator 8i are consistent with the COAG indicators:

- National Aboriginal and Torres Strait Islander Reform Agreement: PI 03-Rates of current daily smokers, 2016) in the Aboriginal and Torres Strait Islander Health Performance Framework (indicator 2.18)
- National Healthcare Agreement: PB e-Better health: by 2018, reduce the national smoking rate to 10 per cent of the population and halve the Aboriginal and Torres Strait Islander smoking rate over the 2009 baseline, 2016

The numerators for Indicators 6 and 7 for the Indigenous population are slightly different to the numerators for the general and non-Indigenous population. Therefore caution should be exercised when comparing Indigenous and non-Indigenous data.

Only headline data for indicator 8i have been age-standardised to account for differences between the age structures of the Aboriginal and Torres Strait Islander and non-Indigenous populations. Direct age-standardisation to the 2001 total Australian population was used.

Age-standardised results provide a measure of relative difference only between populations.

Tables 8i.1, 8i.4, 8i.6 and 8i.7 in the online supplementary tables, are based on unperturbed data to ensure the estimates matched previously published data. All other tables are based on perturbed data.

National Tobacco Strategy 2012–2018: 2011–12

National Health Survey

Relational attributes

Indicators linked to this Quality statement: Indicator 3 (primary); Indicator 8ii (primary); Indicator 14 (primary).

Data quality

Institutional environment: The ABS operates within a framework of the *Census and Statistics Act 1905* and the *Australian Bureau of Statistics Act 1975*. These ensure the independence and impartiality from political influence of the ABS, and the confidentiality of respondents. For more information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

Data source: The 2011–12 data was based on the National Health Survey (NHS) which is a subset (20,500 people) of the Australian Health Survey (32,000 people).

Timeliness: The NHS is conducted every three years over a 12 month period. Results from the 2011–12 NHS component of the AHS were released in October 2012. Results from the Core component of the AHS were released in June 2013.

Accessibility: See Australian Health Survey: First Results (Cat. no. 4364.0.55.001) and Australian Health Survey: Health Service Usage and Health Related Actions (Cat. no. 4364.0.55.002) for an overview of results from the NHS component of the AHS. See: Australian Health Survey: Updated Results (Cat. no. 4364.0.55.003) for results from the Core component of AHS. Specialised data tables and CURFs are also available on request.

Interpretability: Information to aid interpretation of the data is available on the ABS website from the Australian Health Survey: User Guide, 2011–13 (Cat. no. 4363.0.55.001)

Many health-related issues are closely associated with age therefore the relative differences between groups should be interpreted with caution. Age-standardised rates have been provided for Indicator 3 – headline result and state and territory results only. State and territory data, and non-Indigenous data for Indicator 3 have been age-standardised to the 2001 total Australian population to account for differences in the age structures of the States and Territories and the Aboriginal and Torres Strait Islander and non-Indigenous population. Age standardised rates should be used to assess the relative differences between groups, not to infer the rates that actually exist in the population.

When comparing non-Indigenous and Indigenous results, results should be compared to the 2011–12 NHS (not the 2014–

15 results).

Data for the total and non-Indigenous populations in the NHS do not include people living in *Very remote* areas, which affects the comparability of the NT results.

Relevance:

Indicator 3: The 2011–12 NHS collected self-reported information on smoker status from persons aged 18 years and over. This refers to the smoking of tobacco, including manufactured (packet) cigarettes, roll your-own cigarettes, cigars and pipes, but excluding chewing tobacco and smoking of non-tobacco products. The ‘current daily smoker’ category includes respondents who reported at the time of interview that they regularly smoked one or more cigarettes, cigars or pipes per day. The desired outcome over time for this indicator is a decrease in proportion.

Indicator 8ii: The 2011 Socio-Economic Indexes for Areas (SEIFA) and Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) was used for this Indicator. The desired outcome over time for this indicator is a decrease in proportion.

Indicator 14: The 2011–12 NHS collected self-reported information on smoker status from persons aged 18 years and over. This refers to the smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, but excluding chewing tobacco and smoking of non-tobacco products. The ‘current smoker’ category includes respondents who reported at the time of interview that they smoked cigarettes, cigars or pipes.

An increase in this indicator is not necessarily negative and the direction of progress is uncertain. An increase may reflect a greater proportion of a particular group smoking less frequently and a decrease may reflect a reduction in both daily and occasional smokers. Therefore, interpreting trend data for this indicator needs to be considered in the context of the results for indicator 3.

Accuracy:

Scope and coverage

The NHS is conducted in all States and Territories excluding Very remote areas. Non-private dwellings such as hotels, motels, hospitals, nursing homes and short-stay caravan parks were also not included in the survey. The exclusion of persons usually residing in Very remote areas has a small impact on estimates, except for the NT, where such persons make up approximately 23 per cent of the population. The response rate for the 2011–12 NHS component was 85 per cent. Results are weighted to account for non-response.

Sampling error

As it is drawn from a sample survey, the indicator is subject to sampling error. Sampling error occurs because only a small proportion of the population is used to produce estimates that

represent the whole population. Sampling error can be reliably estimated as it is calculated based on the statistical methods used to design surveys. Rates should be considered with reference to their RSEs. Estimates with RSEs between 25 per cent and 50 per cent should be used with caution. Estimates with RSEs greater than 50 per cent are generally considered too unreliable for general use and have not been presented in the baseline report.

Data for Northern Territory in 2011–12 is not comparable to previous years due to the increase in sample size.

Indicators:

Indicator 3: This indicator has acceptable levels of sampling error except for:

- the country of birth disaggregation – Italy had an RSE greater than 50% and has not been published; China, Greece, India, other Oceania and Antarctica, North-East Asia, Southern and Central Asia and the Americas have RSE between 25% and 50% and should be used with caution.
- people whose highest level of attainment was graduate diploma/certificate (RSE between 25% and 50%) and people who never attended school (RSE greater than 50%).

Indicator 8ii: This indicator has acceptable levels of sample error except for people aged 75 or older, people with bachelor degrees, those who had never attended school, unemployed people and people living in *Outer regional* or *Remote areas*.

Indicator 14: This indicator has acceptable levels of sampling error except for age and sex breakdowns, country of birth, employment status, education level, household status and *Inner regional* and *Remote areas*.

The accuracy of these smoking rates, particularly at the finer disaggregation levels, would be improved by using the core sample of 34,000 people from the AHS. For information on AHS survey design, see the Australian Health Survey: Users' Guide (cat. no. 4363.0.55.001) on the ABS website

Coherence:

The methods used to construct the indicators are consistent and comparable with other collections. The NHS also collects a range of other health-related information that can be analysed in conjunction with smoker status. Other non-ABS collections, such as the National Drug Strategy Household Survey (NDSHS), report estimates of smoker status. Results from the recent NDSHS in 2010 show slightly lower estimates for current daily smoking than in the 2011–13 AHS. These differences may be due to the greater potential for non-response bias in the NDSHS and the differences in collection methodology.

National Tobacco Strategy 2012–2018: Australian School Students Alcohol and Drug Survey 2014

Relational attributes

Indicators linked to this quality statement

- Indicator 1 (primary)
- Indicator 2 (primary)
- Indicator 10 (supplementary)
- Indicator 13 (primary).

Data quality

Institutional environment

Cancer Council Victoria (CCV) is a leading non-government organisation of more than 400 staff, with an international reputation for innovation in cancer research, prevention, support and advocacy. The organisation focuses on applying research to inform and shape the best possible prevention, early detection, treatment and support programs for the benefit of all Victorians, and more widely where applicable. Located in the St Kilda Road precinct in Melbourne, the organisation runs the internationally renowned Quit and SunSmart prevention programs. CCV is the largest non-government funder of cancer control research in Victoria, and provided more than \$23 million for this purpose in 2013. CCV provides a home for intramural researchers in epidemiology, behavioural and tobacco control research.

The Centre for Behavioural Research in Cancer (CBRC) is one of these intramural research units and was established in 1986. With about 25 staff members, CBRC researchers attract substantial research funding from the US National Cancer Institute, National Health and Medical Research Council, ARC, VicHealth, Victorian Department of Health, Victorian Cancer Agency, Australian Government Department of Health, and other government and non-government bodies. The centre hosts a multidisciplinary group of researchers who undertake research to develop and evaluate mass media campaigns in tobacco control, skin cancer prevention, obesity prevention and alcohol harm prevention, as well as research to shape supportive care interventions for people affected by cancer, and cancer prevention policies, including tobacco plain packaging, warnings on unhealthy products and the impact of product marketing on healthy choices

CCV has coordinated, analysed and managed ASSAD at the national since 1984.

Timeliness

Frequency: ASSAD is conducted every 3 years throughout the school year.

Timing: The 2014 data were collected between June and December 2014. Data processing commenced in October 2014

and continued until February 2015. Data cleaning took place between February and June 2015.

Results from the national 2014 ASSAD survey will be released in July 2016.

Accessibility

Published results from the 2014 ASSAD survey are available at: <<http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/Publishing.nsf/content/school11>>

Cancer Council Victoria manages secondary data analysis requests.

Interpretability

Information to help interpret 2014 ASSAD results are in *Tobacco use among Australian secondary school students 2014* and *Australian secondary school students' use of tobacco, alcohol, and over-the-counter and illicit substances in 2014*.

A copy of the survey instrument is included as Appendix 1 in the report, available at <<http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/Publishing.nsf/content/school11>>. Questions have been consistent across jurisdictions and across survey years.

Relevance

Scope and coverage

The ASSAD survey is a cross-sectional school-based survey of adolescents in Australian secondary schools. The survey is a collaboration between cancer councils in Victoria, South Australia, Queensland and Tasmania, state and territory health departments and the Australian Government Department of Health. The survey collects data on the use of alcohol, tobacco and illicit drug use by Australian secondary students every three years. A key strength of the survey is that the same methodology and survey items have been used to assess use for over 30 years for tobacco and alcohol and for over 20 years for the illicit substances.

The sample was selected from all full-time students enrolled in Australian government, independent and Catholic secondary schools (n=1,599,891). Schools with less than 100 students and specialist schools were not included in the sample. As secondary schools were used as the basis for surveying students, young people who did not remain in school or were in more vocational orientated education facilities were excluded from the study. Therefore, estimates for 16- and 17-year-olds reported here can only be generalised to the population of 16- and 17-year-old students rather than to all young people aged 16 and 17 years. As young people who do not complete secondary school are more likely to use substances (Bond L, Butler H, Thomas L, Carlin J, Glover S, Bowes G, Patton G. Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. *Journal of Adolescent*

Health 2007; 40(4):357 e9–18), this study is likely to underestimate the prevalence of substance use among the population of 16- and 17-year-olds.

Principals of selected schools were contacted, and permission to conduct the survey at the school was sought. If a school refused, they were replaced by the school geographically nearest to them within the same education sector.

The policy of the education departments in each state and territory, and the policies of individual schools determined whether active parental consent is required before students participate in the study. Active parental consent requires that the student return a consent form showing that their parents have approved their participation in the study.

The study aimed to have 80 students from each participating school complete the survey. On an agreed day, external research staff attended the school to administer the pencil-and-paper questionnaire to the preselected classes of students, during school time. Students worked independently, and completed the survey anonymously.

Geographic detail

Surveys were conducted in each state and territory in Australia. Information on student and school postcode was collected and can be used to locate students and schools into geographical areas based on the Australian Statistical Geography Standard 2011.

Indicator 1: The ASSAD survey collects self-reported information on smoking frequency from secondary school students aged 12–17. ASSAD collects data on percentages of secondary school students who have smoked in the previous month, in the previous week, and on more than 3 days in the previous week. Smoking at least weekly or at least monthly are the internationally accepted indicators for adolescent smoking. This is different than the adult definitions. For adults (Indicator 3), regular smoking is defined as smoking daily, while for secondary school students aged 12–17 it is defined as smoking at least 1 day in the previous week. This refers to the smoking of cigarettes only – the question did not specifically ask about smoking cigars or pipes, chewing tobacco, or smoking non-tobacco products. This indicator is based on question 26 of the 2014 ASSAD questionnaire.

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 2: The ASSAD collected self-reported information on whether a school student had smoked more than 100 cigarettes in their life. This indicator is based on question 23 of the 2014 ASSAD questionnaire.

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 10: The ASSAD collected self-reported information on whether a school student had ever smoked just a few puffs of a cigarette. This indicator is based on question 23 of the 2014 ASSAD questionnaire. The NDSHS is used as the primary data for the adult population (18 or older), and is based on a different definition (See NDSHS data quality statement for more information).

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 13: The ASSAD collected self-reported information on smoker status from school students aged 12–17. A student is defined as a smoker if they reported smoking a cigarette at least once in the 4 weeks before the survey. This indicator is based on question 25 of the 2014 ASSAD survey. The desired outcome over time for this indicator is a decrease in proportion.

Accuracy

Perceptions of behaviour

It is known from past studies of alcohol and tobacco consumption that respondents tend to underestimate actual consumption levels (Stockwell et al. 2004). **Sample design**

Within each state and territory, schools were sampled using a random sampling method designed to represent students from the three main education sectors: government, Catholic and independent. The basic design of the sampling procedure was a stratified

two-stage probability sample, with schools selected at the first stage of sampling, and students selected within schools at the second stage of sampling. Within each state and territory, schools were stratified by the three education sectors, and randomly selected from each sector to ensure that the distribution of schools in the three education sectors was reflected in the sample. Two samples of schools were drawn to reflect the distinction between junior secondary (up to Year 10) and senior secondary (Year 11 and Year 12) campuses.

To correct for any over and under-sampling of students in any state, education sector, age and gender group, data were weighted to ensure that the results relate to the distribution of students across the states and education sectors throughout Australia.

Sampling error

The measure used to indicate reliability of individual estimates reported in 2014 was the relative standard error (RSE). Only estimates with RSEs of less than 25% are considered reliable enough for most purposes. Results subject to RSEs of between

25% and 50% should be considered with caution, and those with relative standard errors greater than 50% should be considered as unreliable for most practical purposes.

Non-sampling error

In addition to sampling errors, the estimates are subject to non-sampling errors. These can arise from errors in reporting of responses (for example, failure of respondents' memories, incorrect completion of the survey form), the unwillingness of respondents to reveal their true responses, and the higher levels of non-response from certain subgroups of the population.

Reported findings are based on self-reported data, and are not empirically verified by blood tests or other screening measures.

The policy of the education departments in each state and territory, and the policies of individual schools determined whether teachers remained in the room when the survey was being administered. Most schools required this in 2014, with 88% of students completing the questionnaire in the presence of teachers. This proportion was similar to 2011 when 90% of students completed the survey in the presence of a teacher. If a teacher was present when the survey was conducted, they remained at the front or back of the room and did not participate in the survey session. In general, there was a pattern where students completing the survey in the presence of a teacher were less likely to report use of tobacco, however most of these differences were not statistically significant at $p < 0.01$.

Response and contact rates

Overall, 24,052 students in years 7 to 12 took part in the survey. Of those, 92 were removed from the data set due to large amounts of missing data or wildly exaggerated responses. A total of 23,007 surveys were from students aged 12–17, and were included in the analysis. Some students did not answer all questions, because they were either unable or unwilling to provide a response. The survey responses for these students were kept in the sample.

Following procedures established for the earlier surveys in this series, cleaning of data relating to all substance use questions involved checking for inconsistencies in reported use of substances across time periods (lifetime, past year, past month and past week). This cleaning procedure ensured maximum use of the data and operated on the principle that the participant's response about personal use in the most recent time period was accurate. For example, if students indicated they had used a substance in the past week and in the past month but indicated that they had not used it in the past year

or, if the response to this question was missing, the response for the past year was recoded to indicate that the substance had been used within this time period. As in previous survey years, the impact of these sorts of recodes on the data set was minimal, with around three to four per cent of data recoded.

A low response rate does not necessarily mean that the results are biased. As long as the non-respondents are not systematically different in terms of how they would have answered the questions, there is no bias.

Aboriginal and Torres Strait Islander data

The survey was not specifically designed to obtain reliable national estimates for Aboriginal and Torres Strait Islander people, as there was no target sample size.

Indicators

Indicator 1: This indicator has acceptable levels of sampling error.

Indicator 2: This indicator has acceptable levels of sampling error.

Indicator 10: This indicator has acceptable levels of sampling error.

Indicator 13: This indicator has acceptable levels of sampling error.

Disaggregations of average spending money

Average spending money is highly correlated with age, and the estimates have not been adjusted for age. As a result, the association between available spending money and weekly smoking should be interpreted with caution.

Comparison with other products available

Comparisons of data collected through the NDSHS show variations in estimates. Differences in collection method, questions used, and design might account for this variation. As a result, comparisons between collections should be made with caution.

Changes to data items

There were no changes to the wording of questions assessing lifetime and recent tobacco use.

Comparison with previous releases

The study aimed to survey students from 417 schools across the country. To achieve this, 1314 secondary schools were approached to take part in the study. Three hundred and fifty-two secondary schools participated in the study, giving an overall response rate for secondary schools of 27%. This was lower than the response rate achieved in 2011. The most

Coherence

common reasons for nonparticipation of secondary schools in 2014 were multiple survey requests from various organisations (unable to meet all requests), timing of request (close to exams, school camps, students participating in work experience) and lack of staff time to coordinate survey. The low school response rate is a potential limitation, however the use of replacement schools with similar characteristics to sampled schools helped maintain the representativeness of the school sample.

In Australia, school year levels contain a mix of ages with, for example, Year 9 containing mainly students aged 14 and 15 years. As the school year progresses, more students will be in the older age group for a year level. In 2014, some states/territories conducted the survey slightly later in the school year than in 2011. This means that a greater proportion of students in each year level could be in the older age group for that year level. To examine the impact of this on findings from the study, an additional set of weights were calculated to account for any disproportionate sampling of age and sex within year levels. Enrolment data from the ABS provided population estimates of age within year levels for each education sector within each state/territory. A comparison of the effect of the two different weights on prevalence estimates showed little difference in the estimates produced for smoking.

National Tobacco Strategy 2012–2018: National Perinatal Data Collection 2013

Relational attributes

Indicators linked to this quality statement

- Indicator 5 (primary).

Related metadata references

See also the 2012 collection data quality statement:
<<http://meteor.aihw.gov.au/content/index.phtml/itemId/597483>>

Data quality

Institutional environment

Data in the National Perinatal Data Collection (NPDC) include data collected as part of the Perinatal National Minimum Data Set (NMDS) and supplied to the AIHW by state and territory health authorities. States and territories supplied these data under the terms of the National Health Information Agreement:

National Health Information Agreement

<<http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442475527>>

Data specifications for the NPDC are documented in the

AIHW's online metadata repository, METeOR, and the Maternity Information Matrix:

METeOR – AIHW online metadata repository

<<http://meteor.aihw.gov.au/content/index.phtml/itemId/181162>>

Perinatal NMDS

<<http://meteor.aihw.gov.au/content/index.phtml/itemId/489433>>

Maternity Information Matrix

<<http://maternitymatrix.aihw.gov.au/>>.

The AIHW is Australia's national agency for health and welfare statistics and information. The role of the AIHW is to provide information on Australia's health and welfare, through statistics and data development that informs discussion and decisions on policy and services.

The AIHW works closely with all state, territory and Australian government health authorities in collecting, analysing and disseminating data. The AIHW is an independent statutory authority within the Health portfolio, and is responsible to the Minister for Health. The Institute is governed by a board, which is accountable to the Parliament of Australia through the minister.

Timeliness

NPDC data are collated annually for calendar years. Most jurisdictions need at least 12 months lead time to undertake data entry, validation and linking with hospitals data as required after the end of the data collection period. Data were requested to be submitted on 30 April 2015. No jurisdiction supplied completed data by this date. Final and usable data were received from all jurisdictions by 28 September 2015. Data are published in *Australia's mothers and babies* in December each year, about 2 years after the end of the data collection period. The National Health Information Standards and Statistics Committee agreed that jurisdictions would move to the provision of financial year data for the NPDC from July 2013.

Accessibility

A variety of products draw upon the NPDC. Products published by the AIHW that are based primarily on data from the NPDC include:

- *Australia's mothers and babies* annual report
- Perinatal data portal
- *National Core Maternity Indicators* reports and data portal
- *Indigenous mothers and their babies* reports.

Ad hoc data are also available on request (charges apply to

recover costs).

The latest publication on the NPDC is *Australia's mothers and babies 2013: in brief* and is available on the AIHW website. This is the twenty-third annual report on pregnancy and childbirth in Australia, providing national information on women who gave birth and the characteristics and outcomes of their babies.

Interpretability

Supporting information on the use and quality of the NPDC is published annually in *Australia's mothers and babies* (Section 4 and Appendix D), and is available in hard copy or on the AIHW website. Comprehensive information on the quality of Perinatal NMDS elements is published in *Perinatal National Minimum Data Set compliance evaluation 2006 to 2009*. Readers are advised to read caveat information to ensure appropriate interpretation of data. Metadata information for the NPDC are published in the National Health Data Dictionary (NHDD) on METeOR and in the Maternity Information Matrix.

Relevance

The NPDC comprises data items as specified in the Perinatal NMDS, plus additional items collected by the states and territories. The purpose of the NPDC is to collect information at birth for monitoring pregnancy, childbirth and the neonatal period for both the mother and baby.

The NPDC is a specification for data collected on all births in Australia in hospitals, birth centres and the community. It includes information for all live births and stillbirths of at least 400 grams birthweight, or at least 20 weeks gestation. It includes data items relating to the mother, including demographic characteristics and factors relating to the pregnancy, labour and birth; and data items relating to the baby, including birth status, sex, gestational age at birth, birthweight and neonatal morbidity and fetal deaths.

A program of national perinatal data development has led to improvements in data provision and reporting. The program involves revision of existing Perinatal NMDS items, data development work on existing perinatal METeOR items and the development of new perinatal items. The scope of the NPDC has not changed. Many of the core data elements have also not changed since the start of the data collection in 1991. Definitions and data domains of some individual data elements have changed over time in response to data development; however, in many cases, data can be mapped to create a consistent time series.

New data elements introduced into the NPDC in the reference period may not be available for the entire period.

Developments to the Perinatal NMDS are under way to include additional data elements. Indigenous status of the baby has been added to the NMDS, with data collection starting from 1 July 2012.

Definitions used for non-standard data items about smoking during pregnancy differ among the jurisdictions. All states and territories currently collect at least one smoking question as part of their routine perinatal data collections. Data for the Northern Territory and South Australia relate to smoking status at the first antenatal visit. For South Australia, women who smoked includes women who quit before the first antenatal visit. This may result in higher rates of smoking being reported for these jurisdictions because often the first antenatal visit will precede pregnancy-related harm minimisation interventions designed to stop smoking during pregnancy. Given the different timing of data collection on smoking during pregnancy in the different jurisdictions, comparisons between states and territories should be interpreted with caution.

While each jurisdiction has a unique perinatal form for collecting data on which the format of the Indigenous status question and recording categories varies slightly, all systems include the NMDS item on Indigenous status of mother. No formal national assessment has been undertaken to determine completeness of the coverage of Indigenous mothers in the NPDC. However, the proportion of Indigenous mothers for the period 2002–2011 has been consistent, at 3.6–3.9 per cent of women who gave birth.

Mothers for whom Indigenous status was not stated have been excluded from analyses for this indicator.

Data provided for this indicator on women who smoked during pregnancy includes women who quit during pregnancy.

Analysis by state/territory is based on the usual residence of the mother. Excludes Australian non-residents of external territories and where state/territory of residence was not stated.

Reporting by remoteness is in accordance with the ASGS for 2011 data and in accordance with the ASGC for earlier data.

Data on smoking at any time during pregnancy have been collected in some states and territories since 2001. Before 2009, national data on smoking at any time in pregnancy was the key measure. Standard data items on smoking in the first and second 20 weeks of pregnancy were added to the Perinatal National Minimum Data Set in 2010, and are reported from 2011 onwards. The report presents smoking prevalence for women who smoked during the first 20 weeks of pregnancy, with estimates for women who smoked at any time during pregnancy also available in the online supplementary tables.

The desired outcome over time for this indicator is an increase in proportion.

Accuracy

Inaccurate responses may occur in all data provided to the AIHW. The AIHW does not have direct access to perinatal records to determine the accuracy of the data provided. However, the AIHW does undertake validation on receipt of data. Data received from states and territories are checked for completeness, validity and logical errors. Potential errors are queried with jurisdictions, and corrections and resubmissions are made in response to these edit queries. The AIHW does not adjust data to account for possible data errors.

Errors may occur during the processing of data by the states and territories or at the AIHW. Processing errors before data supply may be found through the validation checks applied by the AIHW.

Before publication, data are referred back to jurisdictions for checking and review. The AIHW does not adjust the data to correct for missing values. Note that because of data editing and subsequent updates of state/territory databases, numbers reported may differ from those in reports published by the states and territories.

According to the NHDD, Indigenous status is a measure of whether a person identifies as being of Aboriginal and Torres Strait Islander origin. All states and territories have a data item to record Indigenous status of the mother on their perinatal form, although there are some differences among the jurisdictions. For 2013, data on the baby's Indigenous status were available from all states and territories.

Coherence

NPDC data are reported and published annually by the AIHW. While definitions and data domains of some individual data elements have changed over time in response to data development, in many cases it is possible to map coding changes to make meaningful comparisons over time.

The other national data sources on perinatal data are the ABS and the AIHW's National Hospital Morbidity Database (NHMD).

As these collections differ from the NPDC in scope, collection methodology, definitions and reference periods, comparisons between collections should be made with caution.

Age-standardised rates have been provided for Indicator 5—headline result, state and territory estimates and Indigenous and non-Indigenous estimates only. Data were age-standardised to the Australian female population as at 30 June 2001 to account for differences in the age structures of the states and territories, and the Aboriginal and Torres Strait Islander and non-Indigenous population. Age-standardised rates should be used to assess the relative differences between groups, not to infer the rates that actually exist in the population.

National Tobacco Strategy 2012–2018: National Prisoner Health Data Collection 2015

Relational attributes

Indicators linked to this quality statement

- Indicator 3 (supplementary)
- Indicator 8i (supplementary)
- Indicator 10 (supplementary)
- Indicator 14 (supplementary).

Related metadata references:

See also the 2012 collection data quality statement:
<<http://meteor.aihw.gov.au/content/index.phtml/itemId/534531>>.

Data quality

Institutional environment

The AIHW is a major national agency set up by the Australian Government under the *Australian Institute of Health and Welfare Act 1987* to provide reliable, regular and relevant information and statistics on Australia's health and welfare. It is an independent corporate Commonwealth entity established in 1987, governed by a management Board, and accountable to the Australian Parliament through the Health portfolio.

The AIHW aims to improve the health and wellbeing of Australians through better health and welfare information and statistics. It collects and reports information on a wide range of topics and issues, ranging from health and welfare expenditure, hospitals, disease and injury, and mental health, to ageing, homelessness, disability and child protection.

The Institute also plays a role in developing and maintaining national metadata standards. This work contributes to improving the quality and consistency of national health and welfare statistics. The Institute works closely with governments and non-government organisations to achieve greater adherence to these standards in administrative data collections to promote national consistency and comparability of data and reporting.

One of the main functions of the AIHW is to work with the states and territories to improve the quality of administrative data and, where possible, to compile national datasets based on data from each jurisdiction, to analyse these datasets and disseminate information and statistics.

The *Australian Institute of Health and Welfare Act 1987*, in conjunction with compliance with the *Privacy Act 1988* (Commonwealth), ensures that the data collections managed by the AIHW are kept securely and under the strictest conditions with respect to privacy and confidentiality.

For further information see the AIHW website

<www.aihw.gov.au>.

The AIHW has been maintaining the NPHDC since 2009.

Timeliness

The NPHDC has been collected 4 times: 2009, 2010, 2012 and 2015. The exact timing of the data collection and how often it will be conducted in the future are not yet confirmed. The 2015 report was released on 27 November 2015.

Accessibility

The AIHW website provides access to various prisoner health data reports including *The health of Australia's prisoners*, and thematic bulletins, which can be downloaded free of charge. Users can request data not available online or in reports via the Child Welfare and Prisoner Health Unit, Australian Institute of Health and Welfare, on (02) 6244 1000 or via email to <prisoner.health@aihw.gov.au>. A fee may be charged for substantial requests on a cost-recovery basis. General enquiries about AIHW publications can be made to the Digital and Media Communications Unit on (02) 6244 1032 or via email to <info@aihw.gov.au>.

Interpretability

Most of the data on health conditions in the NPHDC are self-report rather than diagnostic health data. Reports such as *The health of Australia's prisoners* have a 'method' section in the Introduction chapter, where technical information may be found. The metadata for the collection are found in the Prisoner Health Data Set Specification (METeOR identifier 375978) on the AIHW's Metadata Online Registry <meteor.aihw.gov.au>. METeOR is Australia's repository for national metadata standards for health, housing and community services statistics and information.

Significance testing for the NPDC is problematic because of the design and method of data collection. The collection is designed to be a census, capturing data on the entire population of interest. To date, this has not been achieved, as in practice some prisoners (especially prison entrants and discharges) are not able to be approached for involvement in the data collection for various reasons. Of those who are, some do not provide consent to participate. The sample is therefore not probabilistic sampling, but rather convenience sampling, rendering standard approaches to statistical testing inappropriate. Comparisons in the report are therefore restricted to those where the data are both internally consistent with previous collections, and externally consistent with other similar data. There is a program of work being undertaken at the AIHW to develop a methodology to indicate variability of data points to support meaningful comparisons. The results of this work may inform future reports of the NPHDC. Incomplete coverage of all prisons and prisoners in the collection (see 'Coverage' below) also means that the data may not be representative of the whole prisoner population.

Relevance

Scope

A prison entrant is classed as a person aged at least 18, entering full-time prison custody, either on remand (awaiting a trial or sentencing) or on a sentence. Prisoners who have been transferred from one prison to another are not included as entrants.

A prison dischargee is a full-time prisoner aged at least 18, who expects to be released from prison within the 4 weeks following the time of interview.

Prisoners aged at least 18 years, held in full-time custody in correctional facilities in Australia are in scope for the clinic and medication components of the NPHDC.

Police cells, court cells, periodic detention, juvenile correctional facilities and immigration detention centres are out of scope for all components of the NPHDC.

Reference period

Data were collected over two 2-week periods, with some jurisdictions collecting data between 2–15 March 2015 and the remaining jurisdictions (excluding New South Wales) collecting data between 27 April–10 May. In Queensland, the data collection was re-run in Arthur Gorrie, Townsville Male and Wolston Correctional Centres from 27 April to 10 May due to technical difficulties during the initial data collection round.

Entrants, dischargee and clinic data cover the whole 2-week period, and medications data cover 1 day in this 2-week period. Some indicators cover the entire 2014 year.

Coverage

Complete coverage of all prisons and prisoners has yet to be achieved in this data collection. The participation of jurisdictions and individual prisons has varied across the collection years for various reasons such as funding and resource availability and private prison contracts. A collection with full participation has not yet occurred. Not all eligible prisoners are able to be approached to participate, and some may not provide consent. For details on participation, see 'Participation rate' below.

In 2015, data were collected from all states and territories. In New South Wales, data were collected for selected entrants' data items only.

Indicator 3: The NPHDC collected self-reported information on smoker status from prison entrants. This refers to the smoking of tobacco – including manufactured (packet) cigarettes, roll your-own cigarettes, cigars, pipes and other tobacco products. The definition of a regular smoker for prison entrants is different to the general population (see NHS data

quality statement for the general population definition), as it includes entrants who smoked ‘most days’ and daily. Data should be considered as supplementary only, and comparisons between the prison entrant population and other groups made with caution. The desired outcome over time for this indicator is a decrease in proportion.

Indicator 8i: The NPHDC collected self-reported information on smoker status from Aboriginal and Torres Strait Islander prison entrants. This refers to the smoking of tobacco – including manufactured (packet) cigarettes, roll your-own cigarettes, cigars, pipes and other tobacco products. The definition of a regular smoker for Indigenous prison entrants is different to the general Indigenous population (see NATSISS data quality statement for the general Indigenous population definition), as it includes entrants who smoked most days and daily. Data should be considered as supplementary only, and comparisons between the Indigenous prison entrant population and non-prisoner Indigenous population or other groups should be made with caution.

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 10: The NPHDC collected self-reported information on whether prison entrants had ever smoked a full cigarette – including manufactured (packet) cigarettes, roll your-own cigarettes, cigars, pipes and other tobacco products. The NDSHS is the primary data source for the general adult population, and NPHDC data is considered supplementary only.

The desired outcome over time for this indicator is a decrease in proportion.

Indicator 14: The NPHDC collected self-reported information on smoker status from prison entrants. This refers to the smoking of tobacco – including manufactured (packet) cigarettes, roll your-own cigarettes, cigars, pipes and other tobacco products. Occasional smoking is defined as smoking not every day, but at least once a week or less than once a week at the time of the interview. Occasional smokers as a proportion of current smokers was not publically available, and this supplementary data was derived from published data by dividing occasional smokers by the total proportion of current smokers (sum of regular and occasional smokers).

The definition of regular smoking in the NPHDC includes ‘every day or most days’, so prison entrants who smoke most days cannot be considered occasional. This definition is different to the general population (see NHS data quality statement for the general population definition). As a result, this estimate might be an underestimation.

The desired outcome over time for this indicator is an increase in proportion.

Accuracy

Participation rate

Participation rates for entrants and dischargees have been calculated from data provided by the jurisdictions on the overall number of prisoners received into prison, and released from prison, during the 2-week data collection period. New South Wales were excluded from the calculations of participation rates because of methodological differences in their collection of entrants' data, and dischargee data was not provided.

In Western Australia, Acacia Prison was unable to participate fully in the data collection due to resourcing constraints and was removed from the data.

For the entrant data, there were usable completed forms for 809 entrants from a total of 1,644 entrants into prisons during the 2-week period – a participation rate of 49%. Among dischargees, participation rates were calculated for all dischargees, and also for sentenced dischargees, who were the focus of data collection. During the data collection period, there were 445 usable dischargee forms completed, from a total of 1,740 prisoners discharged. Of those discharged, 1,059 were sentenced prisoners, resulting in a participation rate of 26% overall, with 42% among sentenced dischargees. The indicative participation rates among entrants and the target population group of sentenced dischargees were therefore similar.

Note that the method of calculation of participation rates has changed since 2012, so rates between 2012 and 2015 may not be comparable.

Coherence

The indicators that constitute the NPHDC were developed by the AIHW with the assistance and advice of the National Prisoner Health Information Committee (NPHIC) and are influenced by policy relevance in monitoring key aspects of prisoner health.

Where possible, existing data standards have been used, to increase comparability both within the NPHDC between collection years, and with other data collections such as those held by the ABS.

There have been some changes between collections in the NPHDC, with indicators being added and deleted, and some changes to definitions and data collection methods. However, there were no changes to the definitions of the data items used in this report between 2012 and 2015 collections. However, caution should be used in making comparisons between different years of the collection.