Australian Government



Australian Institute of Health and Welfare

## Tobacco indicators: measuring midpoint progress

Reporting under the National Tobacco Strategy 2012–2018

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Drug statistics series no. 30

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This publication is part of the Australian Institute of Health and Welfare's drug statistics series. A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISSN 1442-7230 (PDF) ISSN 2205-507X (Print) ISBN 978-1-74249-996-3 (PDF) ISBN 978-1-74249-997-0 (Print)

#### **Suggested citation**

Australian Institute of Health and Welfare 2016. Tobacco indicators: measuring midpoint progress—reporting under the National Tobacco Strategy 2012–2018. Drug statistics series no. 30. PHE 210. Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare

Please note that there is the potential for minor revisions of data in this report.

Please check the online version at <www.aihw.gov.au> for any amendments.

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## **Acknowledgments**

The authors of this report were Simone Brown and Cathy Claydon from the Tobacco, Alcohol and Other Drugs Unit of the Australian Institute of Health and Welfare. Karen Webber and David Whitelaw assisted with data analysis, and Moira Hewitt provided advice and guidance. Fadwa Al-Yaman and Tim Beard also provided reviews and guidance.

The Australian Government Department of Health commissioned and funded this project.

## **Abbreviations**

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ASGS	Australian Statistical Geographic Standard
ASSAD	Australian Secondary Students' Alcohol and Drug Survey
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NDSHS	National Drug Strategy Household Survey
NHA	National Healthcare Agreement
NHS	National Health Survey
NPDC	National Perinatal Data Collection
NPHDC	National Prisoner Health Data Collection
NTS	National Tobacco Strategy
RSE	Relative standard error
SEIFA	Socio-Economic Indexes for Areas

## **Symbols**

- significant and favourable trend  $\checkmark$
- no significant change ≈
- relative standard error between 25% and 50% ×



## **Summary**

This report presents progress against the outcome indicators (indicators 1–8ii) listed under Part Seven of the National Tobacco Strategy 2012–2018 (NTS) and an additional six indicators (indicators 9–14) agreed to during the development of the reporting framework (see Chapter 1 of this report). The indicators are organised across five smoking phases: exposure, uptake, transition, established smoker and cessation. This report will assist the Australian Government, states and territories in monitoring progress towards achieving the objectives and targets of the NTS and the National Healthcare Agreement (NHA) benchmarks.

#### Most indicators show favourable progress

- Fewer people were exposed to tobacco smoke at the midpoint than at baseline, indicating positive progress for the outcome indicators in the **exposure** smoking phase:
  - 40% decline among households with dependent children and non-smoking adults exposed to tobacco smoke inside the home daily.
- Positive progress was also made against the **uptake** smoking phase indicators, with fewer secondary school students (aged 12–17) and adults trying cigarettes for the first time. In addition, young people delayed the onset of tobacco smoking, with an older average age reported at midpoint than at baseline.
- Favourable trends were seen in the **transition** phase indicators:
  - over a 20% decline in the proportion of secondary student and young adults (aged 18–24) smoking at least 100 cigarettes in their lifetime.
- Fewer adults and secondary students reported **established** patterns of smoking at the midpoint than at baseline:
  - regular smoking among secondary students (weekly smoking) and adults (daily smoking) declined by almost a quarter.
- The trends for **cessation** were less clear, with difficulty in assessing progress between baseline and midpoint for quit attempts or average age at cessation, but a significant increase in the proportion of ever-smokers quitting for 12 months or more. A longer time series is necessary to monitor progress for cessation.

#### Some population groups achieved greater progress than others

There are two different measures to evaluate the gap between two population groups: the rate ratio and the rate difference. In this report, the rate ratio has been used as the main measure to analyse the gap between population groups. When drawing conclusions about changes in smoking related measures between population groups over time, both rate differences and rate ratios are important considerations. Further information is provided in Box 3.2 on page 72.

- Findings in this report show people living in *Inner regional* areas and students living in *Outer regional* areas made significant progress across numerous indicators.
- Findings in this report also show that inequalities within particular population groups increased for some indicators.
- Daily smoking rates significantly improved across all socioeconomic areas but the improvement was proportionally greater for those living in the highest two socioeconomic areas.

Summary data for the indicators is provided in Table S1. Different data sources and varying time points are used in this table. Trends across indicators and smoking phases should therefore be treated with caution.

Indicators 3 and 8i in Table S1 also relate to the NHA (of 2008 and updated in 2012) benchmark: 'By 2018, reduce the national smoking rate to 10 per cent of the population and halve the Indigenous smoking rate, over the 2009 baseline'.

#### Table S1: Trends in tobacco smoking indicators

Smoking phase and indicator	Baseline <sup>(a)</sup>	Midpoint <sup>(b)</sup>	Data source	Trend
Exposure				
Indicator 5.1: Fewer women smoking while pregnant (any time)	13.2%	11.7%	2011, 2013 NPDC	$\checkmark$
Indicator 5.2: Fewer women smoking while pregnant (first 20 weeks)	12.9%	11.3%	2011, 2013 NPDC	~
Indicator 6: Fewer children exposed to second-hand smoke at home	6.1%	3.7%	2010, 2013 NDSHS	~
Indicator 7: Fewer adults exposed to second-hand smoke at home	4.0%	2.4%	2010, 2013 NDSHS	$\checkmark$
Uptake				
Indicator 9: People are delaying the onset of tobacco smoking	15.4 years	15.9 years	2010, 2013 NDSHS	$\checkmark$
Indicator 10: Fewer people trying cigarettes (secondary school students)	23.3%	19.1%	2011, 2014 ASSAD	~
Indicator 10: Fewer people trying cigarettes (adults)	62.5%	57.0%	2010, 2013 NDSHS	$\checkmark$
Transition				
Indicator 2: Fewer young people making the transition to established patterns of smoking (secondary school students)	3.5%	2.7%	2011, 2014 ASSAD	~
Indicator 2: Fewer young people making the transition to established patterns of smoking (young adults)	29.4%	23.2%	2010, 2013 NDSHS	~
Established smoker				
Indicator 1: Fewer young people smoking regularly	6.7%	5.1%	2011, 2014 ASSAD	$\checkmark$
Indicator 13: Fewer young people smoking	8.9%	7.5%	2011, 2014 ASSAD	$\checkmark$
Indicator 3: Fewer adults smoking regularly	18.9%	14.5%	2007–08, 2014–15 NHS	~
Indicator 14: Current adult smokers smoking occasionally (weekly or less than weekly)	9.0%	9.6%	2007–08, 2011–12 NHS	*
Indicator 8i: Fewer adults smoking regularly among Aboriginal and Torres Strait Islander people	47.7%	44.4%	2008 NATSISS, 2012–13 AATSIHS	~
Indicator 8ii: Fewer adults smoking regularly among people of low socioeconomic status <sup>(c)</sup>	28.5% <sup>(d)</sup> 21.4% <sup>(e)</sup>	22.1% <sup>(d)</sup> 17.4% <sup>(e)</sup>	2007–08, 2011–12 NHS	$\checkmark$
Cessation				
Indicator 4: More smokers attempting to quit	44.8%	46.7%	2010, 2013 NDSHS	~
Indicator 11: Adult ever-smokers are quitting at a younger age	35.3 years	35.4 years	2010, 2013 NDSHS	≈
Indicator 12: More adult ever-smokers no longer smoking	47.4%	51.8%	2010, 2013 NDSHS	$\checkmark$
NHA benchmark	Age-standa	rdised rates		
By 2018, reduce the national smoking rate to 10 per cent of the population	19.1%	14.8%	2007–08, 2014–15 NHS	~
By 2018, halve the Indigenous smoking rate, over the 2009 baseline	44.8%	42.1%	2008 NATSISS, 2012–13 AATSIHS	<b>≈</b> <sup>(f)</sup>

 $\checkmark$  significant and favourable trend;  $\approx$  no significant change

(a) Baseline data collection year ranges from 2007–08 to 2011. See Chapter 1 for more information.

(b) Midpoint data collection year ranges from 2013 to 2014–15. See Chapter 1 for more information.

(c) Index of Relative Socio-Economic Advantage and Disadvantage 2011.

(d) Lowest socioeconomic quintile.

(e) Second-lowest socioeconomic quintile.

(f) A p value of <0.05 was used for all statistical tests. The p value for these two rates was 0.0514.

Note: Indicators 3 and 8i are the same measure as the NHA benchmarks; however crude rates are reported for the indicators, while age-standardised rates are reported for the benchmarks.





## **1** Introduction

There have been significant reductions in the smoking rate in Australia over the last few decades and the burden of tobacco smoking on disease has begun to lessen, but the impact is still high and efforts to continue the reduction of harm from smoking remain vital.

Information and statistics showing trends in tobacco use are essential for monitoring progress, identifying disparities and areas of greatest concern, and for informing the development and evaluation of targeted programs and strategies designed to reduce the burden of tobacco-related harm.

## About this report

This report measures midpoint progress against each of the outcome indicators in the National Tobacco Strategy 2012–2018 (NTS) and an additional 6 indicators, organised across five smoking phases: exposure, uptake, transition, established smoker and cessation. It builds on the *Tobacco data reporting under the National Tobacco Strategy 2012–2018: Tobacco indicators: baseline report* (Baseline report), completed in 2015, which presented baseline data for these outcome indicators. Table 1.1 presents the indicators, organised by smoking phase, and specifies whether each one originated from the NTS or is an additional indicator.

Smoking phase	Indicator	Indicator number	Indicator origin
	Fewer women smoking while pregnant	Indicators 5.1 and 5.2	NTS
Exposure	Fewer children exposed to second-hand smoke at home	Indicator 6	NTS
	Fewer adults exposed to second-hand smoke at home	Indicator 7	NTS
Uptake	Young people delaying the onset of tobacco smoking	Indicator 9	Additional
	Fewer people trying cigarettes	Indicator 10	Additional
Transition	Fewer young people making the transition to established patterns of smoking	Indicator 2	NTS
	Fewer young people smoking regularly	Indicator 1	NTS
	Fewer young people smoking	Indicator 13	Additional
	Fewer adults smoking regularly	Indicator 3	NTS
	Current adult smokers smoking occasionally	Indicator 14	Additional
Established smoker	(weekly or less than weekly)	Indicator 8i	NTS
	Fewer adults smoking regularly among Aboriginal and Torres Strait Islander people	Indicator 8ii	NTS
	Fewer adults smoking regularly among people of low socioeconomic status		
	More smokers attempting to quit	Indicator 4	NTS
Cessation	Adult ever-smokers are quitting at a younger age	Indicator 11	Additional
	More adult ever-smokers no longer smoking	Indicator 12	Additional

#### Table 1.1: Tobacco smoking indicators, by smoking phase



#### Indicators in the National Tobacco Strategy

Indicators 1 to 8ii are set out in the NTS—the current framework to reduce tobacco-related harm in Australia. This is a policy framework for the Australian and state and territory governments to work together, and with non-government agencies, to improve health and reduce the social and economic costs of tobacco use. The NTS complements existing public health policy frameworks and tobacco control policies. Measuring progress against the NTS indicators will aid in monitoring progress towards achieving the objectives and targets of the strategy (see National Tobacco Strategy 2012–2018) and the National Healthcare Agreement (NHA) benchmarks (see Box 1.1). Moreover, detailed analysis will help to support the direction of future efforts and highlight particular groups that may require targeted attention.

#### Box 1.1: National Healthcare Agreement benchmark

In 2008, through the NHA (updated in 2012), the Australian and state and territory governments committed to the following performance benchmark.

By 2018:

- reduce the national smoking rate to 10% of the population
- halve the Aboriginal and Torres Strait Islander smoking rate, over the 2009 baseline.

This benchmark is the basis for the targets adopted in the NTS 2012–2018 (COAG 2008; COAG 2012).

#### **Additional indicators**

The additional indicators (9 to 14) were identified during the development of the reporting framework for the Baseline report (see that report for further detail). They were designed to complement the existing indicators and provide supplementary trend information for the uptake, cessation and established smoker tobacco smoking phases. A comprehensive explanation of the development of the additional six indicators can be found in the Baseline report.

#### **Conceptual framework**

Consideration of the many factors that may influence tobacco smoking led to the development of the conceptual framework (see Appendix A). This maps selected influencing factors across the five smoking phases: exposure, uptake, transition, established smoker and cessation, also indicating the relevant smoking phase that each outcome indicator relates to. The conceptual framework also guides the investigation of trend data across certain population groups and health determinants, across the smoking phases, giving insight into smoking patterns and the factors that may influence a person's smoking behaviour. The conceptual framework is described in further detail in the Baseline report.

The Baseline report also includes an extensive explanation of the selection process for data sources and collection periods and details the indicator specifications.

### Background

Tobacco smoking causes numerous health problems, including stroke, coronary heart disease, chronic obstructive pulmonary disease, asthma and other respiratory effects, diabetes, and various cancers, such as throat, lung, liver and colorectal (USDHHS 2014:4). Exposure to tobacco smoke (second-hand smoking) also causes numerous health conditions among adults and children, and smoking (first or second-hand) during pregnancy has reproductive implications, such as increased risk of ectopic pregnancy, miscarriage, premature labour, stillbirth and sudden infant death syndrome (SGV 2014; USDHHS 2014:5).

#### **Tobacco control measures**

Australia has been successful in reducing smoking rates over many years (IGCD 2013). Strategies to minimise the harm caused by tobacco smoking have been in place for several decades. Comprehensive public health measures contributing to the reduction in smoking have included bans on advertising, bans on smoking indoors and increasingly in outdoor public spaces, plain packaging, new and larger graphic health warnings, excise increases, restrictions on sales to minors, public education initiatives and media campaigns (IGCD 2013; MCDS 2011). Figure 1.1 shows the steady decline in daily smoking rates, from 28% in 1989–90 to 14.5% in 2014–15, and the key tobacco control measures implemented in Australia during this period.



## Figure 1.1: Daily smokers aged 18 or older and key tobacco control measures in Australia, 1989–90 to 2016



### The impact from smoking is still high

While rates of tobacco smoking in Australia have been declining, the disease and death burden caused by smoking is still high due to higher smoking rates in the past and a time lag between exposure and some health outcomes (such as cancer) (AIHW 2016).

The Australian Burden of Disease Study (AIHW 2016) found that tobacco smoking was responsible for 9.0% of the total burden of disease and injury in Australia in 2011. It was the top-ranking risk factor in both 2011 and 2003, well ahead of other risk factors, such as high body mass and risky alcohol use. While tobacco use remains the most concerning risk factor, between 2003 and 2011 the proportion of disease or injury attributed to tobacco use declined by 2.8% (after adjusting for the changes in the structure and size of the population).

While the burden from tobacco use is declining slightly, premature death is still common among smokers. A recent Australian study estimated that smokers aged 45–75, on average, died about 10 years earlier than non-smokers, with up to two-thirds of deaths in current smokers attributed to smoking (Banks et al. 2015). However, it has also been shown that mortality rates do not differ significantly for non-smokers and smokers who quit before the age of 45 (Banks et al. 2015), meaning that along with reducing smoking rates, smoking cessation (especially in younger people) is essential for health improvements at both individual and population levels.

It is well known that tobacco smoking prevalence, mortality and morbidity affect some groups more than others, particularly the most disadvantaged groups (people facing combinations of multiple issues, such as low income, limited education, unemployment or sole parenthood) (CCV 2013). Disparities in smoking prevalence are concerning—disadvantaged groups in Australia bear a disproportionate share of the harm caused by smoking, with high smoking rates contributing to both health and financial inequalities (CCV 2013).

#### **Recent developments**

Many factors can affect smoking rates—in a favourable or unfavourable way. For example, factors affecting smoking rates at the population level may include government initiatives, developments in tobacco-related products, or major tobacco company strategies aimed at promoting smoking (CCA 2016). There have been many developments since the collection period of the baseline data used in this report that may contribute to a change in long-term trends. Some of these changes include plain packaging legislation, increased taxation and the rising popularity of electronic cigarettes.

#### **Plain packaging**

Plain packaging is a recent part of Australia's comprehensive suite of tobacco control measures. Since 1 December 2012 all tobacco products sold, offered for sale, or otherwise supplied in Australia must be in plain packaging. The objectives of this policy are to reduce the appeal of tobacco products to consumers (particularly young people), to increase the noticeability and effectiveness of mandated health warnings, and to counter the potential of retail packaging to mislead consumers about the harms of smoking.

#### **Pricing and taxation**

Increasing tobacco prices is one of the most effective tobacco control measures governments can implement. Excise taxes have been placed on tobacco products since 1901—with many increases in recent years (Department of Health 2014). In 2010 the Australian Government increased the excise applying to tobacco products by 25%. In 2013 four 12.5% increases were announced, with the first 12.5% increase commencing on 1 December 2013, the second on 1 September 2014, the third on 1 September 2015, and the fourth planned for 1 September 2016 (Department of Health 2014).

#### Electronic cigarettes

Electronic cigarettes (e-cigarettes) have been increasing in popularity but the short- and long-term health effects of their use are unknown. Evidence on the use of e-cigarettes as a tool for smoking cessation and, conversely, the potential they have to initiate tobacco smoking in adolescents is conflicting and inconclusive. The limited available evidence points to some potential risk posed by e-cigarettes to successful public policy efforts over the last few decades in Australia—or the danger of reversing the success achieved in de-normalising tobacco smoking (CCA 2016).

In 2013, 14.8% of current smokers (or 3.2% of people aged 14 or older) had used an e-cigarette in the last 12 months, with use more common among younger smokers (27% of smokers aged 18–24) (AIHW 2014). Use of e-cigarettes was first reported by the National Drug Strategy Household Survey in 2013, and monitoring the use of e-cigarettes among the community is important for supporting other evidence used in guiding government policy direction for e-cigarettes.

### Interpreting results in this report

### Data sources and collection period

At a national level, no single tobacco-related data collection contains sufficient data to inform all of the outcome indicators. As a result, 7 national data collections have been used in this report (Table 1.2).

Data collections used were selected based on several criteria, including: consistency with indicator specifications; collection size and reliability; availability and timing of data; demographic and area-level variables available; and data representativeness (for national or specific subgroups of the Australian population, such as Aboriginal and Torres Strait Islander (Indigenous) people).

The baseline year of data used for each indicator was influenced by the timing of collection periods of source data and the availability of new data (there is usually a substantial lag between the collection of data and their availability for analysis and reporting, due to administrative and quality-assurance processes). The chosen baseline data collection years were influenced by the following criteria:

- Data were available for the baseline report at 3 points in time between 2007 and 2018: before the commencement of the NTS 2012–2018 (pre-2012); and at least 2 discrete years of data were collected between 2012 and 2018 to allow for progress to be monitored at the midpoint and completion of the NTS 2012–2018.
- Data sources were given priority if they were consistent with the data source used to inform the Council of Australian Governments NHA performance indicators.

For the purpose of this report, the midpoint date is considered to be the most recent data available as at 31 December 2015. The 2014–15 NATSISS data was not available at this time (released on 28 April 2016) and therefore the 2012–13 AATSIHS was used to report midpoint data for Indicator 8i and for the supplementary Indigenous data presented in indicators 6, 7 and 14. The timing of the data collections and rates supplied in this report differ and range from 2007–08 to 2011 for baseline data, and 2012–13 to 2014–15 for midpoint data (see Table 1.2). In addition, some data sources have an additional year of data (in-between baseline and midpoint) available in the online supplementary tables. Where there was more than one year of data available since baseline (for example the National Health Survey (NHS): 2011–12 and 2014–15), the most recent data available at December 2015 were selected for midpoint analysis.



Baseline year	Midpoint year	Data collection (Name)	Organisation
2011	2014	Australian Secondary Students' Alcohol and Drug Survey (ASSAD)	Cancer Council Victoria
2010	2013	National Drug Strategy Household Survey (NDSHS)	AIHW
2007–08	2014–15	National Health Survey (NHS)	ABS
2008	_	National Aboriginal and Torres Strait Islander Social Survey (NATSISS)	ABS
-	2012–13	Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS)	ABS
2011	2013	National Perinatal Data Collection (NPDC)	AIHW
2010	2015	National Prisoner Health Data Collection (NPHDC)	AIHW

Table 1.2: Data sources and collection	vears used in the baseline and	midpoint reports

Further information relating to Table 1.2 can be found in the separately-published Data Quality Statements for this report.

As a result of the varying time collections used for indicators, some indicators have a longer time period between baseline and midpoint. For example, Indicator 3 uses the 2007–08 and 2014–15 NHS, allowing 7 years for recording progress, whereas Indicator 6 uses the 2010 and 2013 National Drug Strategy Household Survey (NDSHS) data, allowing only 3 years to record progress. As a result, trends across indicators and smoking phases should be treated with caution. Data collections used to inform baseline data have also been used to report midpoint data to ensure comparability and reliability over time, with the exception of data for Indigenous people. For that group there is no single data source collected frequently enough to inform both baseline and midpoint data. The National Aboriginal and Torres Strait Islander Social Survey (NATISS) was used as the baseline data point and the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) was used for the midpoint data point. Although the NATSIHS differs in focus from the NATSISS, overlapping content is provided in both surveys every three years, and so they are considered comparable.

Further rationale for data sources and collection years used in this report can be found in the Baseline report.

#### **Presentation of estimates**

Data are reported at the national level for all indicators; however, in line with other national agreements, indicators for regular tobacco smoking among adults and Indigenous adults and tobacco smoking during pregnancy (indicators 3, 5 and 8i) include state and territory disaggregation as well as national estimates. For these indicators, state and territory top-line data are provided, whereas national and jurisdictional estimates are presented as raw proportions and age-standardised percentages. Additional disaggregations for these indicators are only reported at the national level, and estimates are only presented as raw proportions (not age-standardised). For all other indicators, estimates are only presented as raw proportions (not age-standardised) and at the national level.

While most indicator data are presented as a proportion of the total population or the total smoking population, some are presented as mean age. Proportions are shown as percentages rounded to 1 decimal place when less than 20% and rounded to a whole number when 20% or higher.

The data presented in this report show associations between health determinants and smoking behaviour for specific groups, but due to the complex interaction of multiple factors (determinants), it is not possible to assess the contribution of specific factors to smoking behaviour.

#### Survey data versus administrative data

Data sources include survey data, census data and administrative data. All survey data are based on weighted estimates, using the relevant population weights for that data source. Survey data are subject to sampling error; however, all data have been tested for data quality issues. Estimates have only been presented if the relative standard error (RSE) is less than 50%. Estimates that have an RSE greater than 25% but less than 50% are marked in the online supplementary tables with an asterisk (\*). These data need to be interpreted with caution as the reliability of estimates decreases as the RSE increases.

All proportions that are calculated from survey data are estimates rather than true population proportions. This means they have a margin of error due to only a sample of the population being surveyed. This is called sampling error.

When comparing two different estimates, it is important to determine whether the difference is likely to reflect a true difference in the underlying population or whether it may be due to sampling error. This process is called 'significance testing'. In this report, a difference is deemed to be statistically significant if the chance of seeing the observed difference due to sampling error alone, was less than 5% (p <0.05).

All comparisons between midpoint and baseline survey estimates were subject to significance testing. Significant increases or decreases were all statistically significant at the 95% level of confidence, but have been described throughout this report simply as 'significant'. If a difference is statistically significant, it has been marked with a '#' symbol in the online supplementary tables.

Sometimes, even large apparent differences may not be statistically significant. This is particularly the case in breakdowns of small populations because the small sample size means that sampling error is likely to have a larger effect on the estimates.

Census data and administrative data are subject to different types of quality issues than survey data. Unlike survey data, which are collected for statistical purposes, administrative data are collected as part of a program agency's routine operations. Common data quality concerns with administrative data include incomplete data, incorrect data format and mistyped data (National Statistician's Office 2014). Census data is also subject to similar data quality issues as survey data, including respondent error, processing error, and partial or non-response. Data from census or administrative collections are not subject to significance testing because these data are not subject to sampling error.



## 2 Smoking phases

This chapter presents trend data for the outcome indicators, organised under the five smoking phases (see Table 1.1). Each indicator includes:

- trend data for the headline result and whether the trend is favourable, unfavourable or there has been no significant change
- indicator definition and specifications
- trend data for disaggregations by different cohorts, life stages, socioeconomic and remoteness areas, and at-risk groups.

As a result of the different time period for the data collections used for indicators, some indicators have a longer time period between baseline and midpoint. For example, Indicator 3 uses the 2007–08 and 2014–15 NHS data, allowing 7 years for the assessment of progress, whereas Indicator 6 uses the 2010 and 2013 NDSHS data, allowing only 3 years for assessment of progress. Consequently, trends across indicators or smoking phases should be treated with caution. Data collections used to inform baseline data have also been used to report midpoint data (with the exception of data for Aboriginal and Torres Strait Islander people) to ensure comparability and reliability over time. Finally, state and territory-based and age-standardised data are only presented for indicators 3, 5 and 8i.



### **Exposure**

#### Indicator 5.1: Fewer women smoking while pregnant (any time)



#### **Headline result**

In 2013, 11.7% of women who gave birth smoked at any time during their pregnancy, declining from 13.2% in 2011.

#### **Indicator description**

The number of women who gave birth and smoked at any time during the pregnancy, expressed as a percentage of all women who gave birth.

Numerator: The number of women who gave birth and reported smoking during pregnancy.

**Denominator:** The number of women who gave birth and whose smoking status during pregnancy was known.

Data source: National Perinatal Data Collection (NPDC), 2011 to 2013.

#### Box 2.1: Measuring smoking in pregnancy

Data on smoking at any time during pregnancy have been collected in some states and territories since 2001. Before the availability of data on smoking in the first 20 weeks of pregnancy, data on smoking at any time in pregnancy was the key measure for monitoring smoking during pregnancy. Standard data items on smoking in the first 20 weeks of pregnancy, and after 20 weeks of pregnancy, were added to the Perinatal National Minimum Data Set in 2010, and so national data are available for reporting purposes from 2011 onwards. Smoking in the first 20 weeks of pregnancy is the most commonly reported measure; however, as limited trend data are currently available, smoking at any time in pregnancy is also often reported.

As smoking in the first 20 weeks of pregnancy is the key measure for monitoring smoking during pregnancy, additional disaggregations are not presented here (see Indicator 5.2). For further analysis and disaggregations for smoking at any time during pregnancy, see online supplementary tables for Indicator 5.1 available at <a href="http://www.aihw.gov.au/publication-detail/?id=60129557116&tab=2">http://www.aihw.gov.au/publication-detail/?id=60129557116&tab=2</a>>.

#### Indicator 5.2: Fewer women smoking while pregnant (first 20 weeks)



#### **Headline result**

In 2013, 11.3% of women who gave birth smoked during the first 20 weeks of their pregnancy, declining from 12.9% in 2011.

#### **Key findings**

Positive progress was made against this indicator with fewer women smoking during the first 20 weeks of pregnancy at midpoint than at baseline, across all groups examined.

While all groups have made positive progress, the difference in smoking rates (the gap) between groups has generally widened. Women who were more likely to smoke during the first 20 weeks of pregnancy in 2011 (for example, teenage mothers, mothers who were never married or living in *Remote and very remote* or the lowest socioeconomic areas) continued to be more likely to smoke in 2013 and the gap between their counterparts increased (that is, mothers who were older, in a married or de facto relationship, or living in *Major cities* or the highest socioeconomic area).

#### **Indicator description**

The number of women who gave birth and smoked during the first 20 weeks of their pregnancy, expressed as a percentage of all women who gave birth.

Numerator: The number of women who gave birth and reported smoking during the first 20 weeks of their pregnancy.

**Denominator:** The number of women who gave birth and whose smoking status during the first 20 weeks of pregnancy was known.

Data source: National Perinatal Data Collection (NPDC), 2011 to 2013.

#### Results

In 2013, 11.3% of women who gave birth smoked during the first 20 weeks of their pregnancy, down from 12.1% in 2012 and 12.9% in 2011 (Online Table 5.2.1). This decline was still apparent after adjusting for differences in the age structure of the populations (14.4% of mothers smoked during the first 20 weeks of pregnancy in 2013, compared with 15.9% in 2011) (Online Table 5.2.4).

#### Age comparisons

The proportion of mothers smoking in the first 20 weeks of their pregnancy declined for all age groups between 2011 and 2013 (Figure 2.1). However, the gap in smoking rates during the first 20 weeks of pregnancy between teenage and older mothers is still apparent—teenage mothers were more than 4 times as likely to smoke in the first 20 weeks of pregnancy as mothers aged 30 and older, in both 2011 and 2013.

#### Indigenous status

While the proportion of Aboriginal and Torres Strait Islander (Indigenous) mothers who smoked in the first 20 weeks of their pregnancy declined slightly between 2010 and 2013, from 49% to 47%, they were still far more likely to smoke in the first 20 weeks of pregnancy than non-Indigenous mothers (9.8%) (Table 2.1 and Figure 2.1). Additionally, while rates of smoking during the first 20 weeks of pregnancy have declined for both Indigenous and non-Indigenous mothers between 2011 and 2013, the gap has widened—Indigenous mothers were 4.3 times as likely to smoke during the first 20 weeks of pregnancy in 2011, and 4.8 times as likely in 2013.

After adjusting for the differences in the age structure of these populations, Indigenous mothers were 3.6 times more likely to smoke during pregnancy than non-Indigenous mothers in 2013 (Table 2.1).

## Table 2.1: Crude per cent, age-standardised per cent, per cent change and rate ratio for pregnantwomen who gave birth and smoked during the first 20 weeks of pregnancy, by Indigenous status,2011 and 2013

	Crude per cent		Crud		Age-st	andardised pe	er cent
Indigenous status	2011 (%)	2013 (%)	Per cent change	2011 (%)	2013 (%)	Per cent change	
Indigenous	49.5	46.9	↓5.3%	47.3	46.6	<b>↓</b> 1.4%	
Non-Indigenous	11.4	9.8	↓14.0%	14.5	12.8	↓11.7%	
Rate ratio	4.3	4.8		3.3	3.6		

Sources: NPDC 2011, 2013.



Sources: NPDC 2011, 2013 (Online Table 5.2.1).

Figure 2.1: Pregnant women who gave birth and smoked during the first 20 weeks of pregnancy, by age group and Indigenous status, 2011 and 2013

#### Marital status and country of birth

Between 2011 and 2013, the proportion of women who gave birth and smoked in the first 20 weeks of pregnancy declined, regardless of marital status or country of birth (Online Table 5.2.1). However, the gap for mothers within these groups widened:

- Mothers born in Australia were 3.4 times as likely to have smoked during the first 20 weeks of pregnancy in 2013 as mothers born overseas (3.2 times in 2011).
- Women who had never been married were 4 times as likely to have smoked during the first 20 weeks of pregnancy as those who were married or in a de facto relationship (3.7 times in 2011) (excluding data from Western Australia).

#### Socioeconomic area

Between 2011 and 2013 the proportion of pregnant women who gave birth and smoked during the first 20 weeks of pregnancy declined for mothers living in all socioeconomic areas (Figure 2.2). While this proportion decreased for all socioeconomic areas between 2011 and 2013, the gradient remained because there were proportionally larger declines among mothers living in the higher socioeconomic areas (Figure 2.3). As a result, the difference in rates between the lowest and highest areas increased—in 2011, mothers living in the lowest socioeconomic areas were 4.3 times as likely to smoke during the first 20 weeks of pregnancy as those living in the highest socioeconomic areas. In 2013, they were 5.3 times as likely.



Figure 2.2: Pregnant women who gave birth and smoked during the first 20 weeks of pregnancy, by socioeconomic area and remoteness area of usual residence, 2011 and 2013



during the first 20 weeks of pregnancy, by socioeconomic area, 2011 to 2013

#### Remoteness areas

The proportion of mothers who gave birth and smoked during the first 20 weeks of pregnancy also declined across all remoteness areas between 2011 and 2013 (Figure 2.2). Proportionally, the decline was greatest for *Major cities* (down 15%). Mothers living in *Remote and very remote* areas were 3.2 times as likely to smoke during the first 20 weeks of pregnancy as mothers living in *Major cities* in 2013 (2.9 times as likely in 2011).

#### States and territories

Between 2011 and 2013, the proportion of women who smoked during the first 20 weeks of pregnancy declined for all states and territories (Online Table 5.2.3). Proportionally, the decline was greatest for the Australian Capital Territory (down 36%) and Tasmania (down 26%) and smallest for the Northern Territory (down 9.5%). In 2013 the proportion of women who smoked during the first 20 weeks of pregnancy ranged from 5.7% in the Australian Capital Territory to 23% in the Northern Territory (8.9% and 25% in 2011, respectively). After adjusting for the differences in the age structure across the states and territories, all jurisdictions saw a decline in this measure, with rates remaining lowest in the Australian Capital Territory (11%) and highest in the Northern Territory (23%) (Online Table 5.2.4).

#### Indicator 6: Fewer children exposed to second-hand smoke at home



#### **Headline result**

In 2013, only 3.7% of households with dependent children had an adult who smoked daily inside the home, declining from 6.1% in 2010.

#### **Key findings**

Considerable progress was achieved against this indicator, with most groups reporting a significantly lower proportion of dependent children being exposed to second-hand smoke inside the home at midpoint than at baseline.

The gap (in rates) between at-risk groups and their most advantaged counterparts widened for some groups (children living in *Remote and very remote* areas and Aboriginal and Torres Strait Islander (Indigenous) children) but narrowed for others (children in single-parent households or living in the lowest socioeconomic areas).

#### **Indicator description**

The proportion of households with dependent children (aged 0–14) who live in a household with a smoker who smokes daily inside the home.

Numerator:General population: the number of households with dependent children aged 0–14 with<br/>a household member who smokes daily inside a home.Indigenous population: the number of households with dependent children aged 0–14<br/>with a smoker who smokes daily inside the home.

Denominator: Households with dependent children aged 0-14.

**Data sources:** National Drug Strategy Household Survey (NDSHS) (primary), 2010, 2013; National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Aboriginal and Torres Strait Islander population) 2008; Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012–13.

#### Results

Between 2010 and 2013, there was a significant decrease in the proportion of households with dependent children that had a smoker who smoked at least one cigarette, cigar or pipe daily inside the home—from 6.1% to 3.7% (Online Table 6.1).

#### Indigenous status

According to the 2012–13 AATSIHS, 16.1% of Indigenous children aged 0–14 lived with a daily smoker who smoked inside the home—a significant decline from 21% recorded in the 2008 NATSISS (Figure 2.4).

#### Main language and household type

For households where English was the main language, the proportion where dependent children were exposed to tobacco smoke in the home almost halved between 2010 and 2013 (significant change from 6.1% to 3.1%) (Figure 2.4). Exposure increased (but not significantly) for children living in households where a main language other than English was spoken, resulting in an increase in the rate ratio—in 2010, children living in households where a language other than English was mainly spoken were less likely to be exposed to smoke inside the home than children where the main language was English, but in 2013 they were 2.2 times as likely.

The proportion of single-parent households with dependent children that had a daily smoker who smoked inside the home more than halved between 2010 and 2013, from 14.6% to 6.8%, decreasing the gap in rates between single-parent and couple parent households (from single-parent households being almost 4 times as likely to have dependent children exposed to tobacco smoke in the home in 2010, to 3.2 times in 2013) (Figure 2.4).



Sources: NATSISS 2008; AATSIHS 2012-13; NDSHS 2010, 2013 (Online tables 6.1 and 6.2).

Figure 2.4: Proportion of households with dependent children aged 0–14 with a smoker who smokes daily inside the home, by Indigenous status, main language and (selected) household type, 2008 and 2012–13; 2010 and 2013

#### Socioeconomic area

While the proportion of households with dependent children where someone smoked inside the home daily decreased for all socioeconomic areas between 2010 and 2013, the decrease was only significant for households with children living in the lowest and middle socioeconomic areas (Table 2.2).

# Table 2.2: Proportion of, and per cent change in households with dependent children aged 0–14 with a smoker who smokes daily inside the home, by socioeconomic area, 2010 and 2013

Socioeconomic area (SEIFA quintile)	2010 (%)	2013 (%)	Per cent change
1st quintile (lowest)	12.4	7.2	<b>↓</b> 42
2nd quintile	5.9	4.6	<b>↓</b> 22
3rd quintile	6.2	3.1	<b>↓</b> 50
4th quintile	2.9	2.4	<b>↓</b> 17
5th quintile (highest)	3.0	2.0	<b>↓</b> 33

Change is significant

Change is not significant

SEIFA=Socio-Economic Indexes for Areas Sources: NDSHS 2010, 2013.



#### Remoteness area

Between 2010 and 2013 there were significant decreases in the proportion of households with dependent children that had a smoker who smoked daily inside the home in *Major cities* (down 31%), *Inner regional* areas (down 64%) and *Outer regional* areas (down 35%). There was no change for households in *Remote and very remote* areas (Figure 2.5).



#### Indicator 7: Fewer adults exposed to second-hand smoke at home



#### **Headline result**

In 2013, only 2.4% of non-smoking adults lived with a smoker who smoked daily inside the home, declining from 4.0% in 2010.

#### **Key findings**

Fewer adults were exposed to second-hand smoke at home, with significant declines in the proportion living with a smoker who smoked daily inside the home reported for almost every group.

The groups most likely to be exposed to tobacco smoke in the home at baseline (Aboriginal and Torres Strait Islander (Indigenous) adults, those who were unemployed or looking for work and young people aged 18–24) all reported significant declines in exposure rates—but they were still the groups most likely to be exposed at midpoint.

The largest decline in exposure rates between baseline and midpoint was reported by adults living in *Remote and very remote* areas (down 60%).

#### **Indicator description**

The proportion of non-smokers aged 18 or older who reported living in a household with a smoker who smokes daily inside the home.

Numerator: General population: the number of non-smokers aged 18 or older who reported living in a household with a household member who smokes daily inside the home. Indigenous population: the number of non-smokers aged 18 or older who reported living in a household with smoker who smokes daily inside the home.

**Denominator:** The total number of non-smokers aged 18 or older.

**Data sources:** National Drug Strategy Household Survey (NDSHS) (primary), 2010, 2013; National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Aboriginal and Torres Strait Islander population) 2008; Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012–13.

#### Results

In 2013 an estimated 2.4% of non-smoking adults lived with a household member who smoked at least 1 cigarette, cigar or pipe daily inside the home—a significant decrease from 4.0% in 2010 (Online Table 7.1).

#### Age and sex

Between 2010 and 2013, the proportion of non-smoking adults exposed to tobacco smoke inside the home decreased significantly for all age groups, with the biggest decline for people aged 45–54 (from 4.4% to 1.9%) (Figure 2.6). There was also a significant decline for both men (from 4.3% to 2.8%) and women (from 3.8% to 2.1%) (Online Table 7.1).

#### Indigenous status

According to the 2012–13 AATSIHS, 7.1% of non-smoking Indigenous adults lived with a daily smoker who smoked inside the home—a significant decline from 13.0% estimated in the 2008 NATSISS (Figure 2.6).

## S

#### Main language and country of birth

Between 2010 and 2013 there was a decline in the proportion of non-smoking adults living with a smoker who smoked daily inside the home, regardless of whether they were born in Australia or overseas or whether they spoke English or a language other than English at home. However, the decline was not significant for people who mainly spoke a language other than English at home (Online Table 7.2).

#### Employment status and education

The proportion of non-smoking adults living with a smoker who smoked daily inside the home declined significantly between 2010 and 2013 regardless of employment status. However, people who were unemployed or looking for work were still the most likely to be exposed in the home in 2013 (2.4 times as likely as people who were employed) (see Figure 2.6).

There was also a decline in this measure for people at all education levels, but the decline was not significant for people whose highest level of educational attainment was a bachelor degree or higher (1.9% and the group least likely to be exposed) or for people whose highest level of educational attainment was year 9 or below (3.4% and the group most likely to be exposed). The decline was greatest for people whose highest level of education was year 11 or 12 (Online Table 7.2).



Sources: NATSISS 2008; AATSIHS 2012–13; NDSHS 2010, 2013 (Online tables 7.1, 7.2 and 7.4).

Figure 2.6: Proportion of non-smoking adults aged 18 or older who live with a smoker who smokes daily inside the home, by age group, Indigenous status, and employment status, 2008 and 2012–13; 2010 and 2013

#### Household type

There was also a decline for this measure among people living in all household types; however, the fall was not significant for single-parent households with dependent children. In 2013, households consisting of parents with non-dependent children continued to be the most likely to include a non-smoking adult who lived with a smoker who smoked daily inside the home (3.9%; down from 5.9% in 2010) (Online Table 7.2).

#### Socioeconomic and remoteness areas

Between 2010 and 2013 there was a significant decline in the proportion of non-smoking adults who lived with a smoker who smoked daily inside the home for all socioeconomic areas, except for the highest area where the decline was not significant (Figure 2.7).

There was also a significant decrease across all remoteness areas. The proportion more than halved for people living in *Inner regional* and *Remote and very remote* areas, meaning that in 2013 people in *Inner regional* areas became the least likely to be exposed to tobacco smoke at home (compared with *Major cities* being the least likely in 2010). (Figure 2.7).



Sources: NATSISS 2008; AATSIHS 2012–13; NDSHS 2010, 2013 (Online Table 7.3).

Figure 2.7: Proportion of non-smoking adults aged 18 or older who live with a smoker who smokes daily inside the home, by socioeconomic status and remoteness area, 2010 and 2013



### Uptake

### Indicator 9: People are delaying the onset of tobacco smoking



#### **Headline result**

In 2013, 15.9 years was the average age when 14–24 year olds smoked their first full cigarette, increasing from 15.4 years in 2010.

#### **Key findings**

Between baseline and midpoint, progress was achieved for most groups, as the average age of initiation for tobacco smoking for young people (aged 14–24) increased. A small number of groups reported unfavourable progress; a significantly younger average age was reported at midpoint for 14–19 year old males and for those who mainly spoke a language other than English.

The greatest increase between baseline and midpoint was for young people with a bachelor degree or higher, where the age of initiation increased by 1.6 years.

#### **Indicator description**

The age at which an individual smoked their first full cigarette.

Numerator: The sum of age (in years) of people aged 14–24 who have smoked a full cigarette.

Denominator: The total number of people aged 14–24 who have smoked a full cigarette.

Data source: National Drug Strategy Household Survey (NDSHS), 2010 and 2013.

#### Results

Between 2010 and 2013 the average age at which people aged 14–24 smoked their first full cigarette (age of initiation) increased significantly, from 15.4 to 15.9 years of age (Online Table 9.1).

#### Age and sex

Between 2010 and 2013, the average age of initiation for males aged 14–19 decreased significantly (from 15.1 years to 14.4 years); however, there was no significant change for females aged 14–19 (a slight increase from 14.8 to 15.0 years) (Figure 2.8). For people aged 20–24, the average age of initiation significantly increased (by 0.8 years) between 2010 and 2013, for both males and females (Figure 2.8 and Online Table 9.1).

#### Indigenous status

Between 2010 and 2013, the average age of initiation for people aged 14–24 increased by 0.5 years for non-Indigenous people, and decreased by 0.5 years for Aboriginal and Torres Strait Islander (Indigenous) people, but the change was only significant for non-Indigenous people (Figure 2.8). While the average age of initiation was the same in 2010, in 2013 Indigenous 14–24 year olds first smoked a full cigarette on average 1 year younger than non-Indigenous 14–24 year olds (14.9 years compared with and 15.9 years).

#### Main language

Between 2010 and 2013 there was a significant decline in the average age that 14–24 year olds who mainly spoke a language other than English at home smoked their first full cigarette (Figure 2.8). As a result, in 2013 both groups smoked their first full cigarette at a similar age (15.9 years) whereas in 2010 those who mainly spoke a language other than English at home were, on average, 2.3 years older when they smoked their first full cigarette than those who mainly spoke English.



## Figure 2.8: Average age at which people aged 14–24 first smoked a full cigarette, by age group (years) and sex, Indigenous status and main language, 2010 and 2013

#### Country of birth

In 2013, people aged 14–24 who were born in Australia smoked their first full cigarette at an older average age than in 2010 (15.8 years compared with 15.3); however, there was no change for people born overseas (16.2 years) (Online Table 9.2).

#### Employment status and education

In 2013 employed 14–24 year olds smoked their first full cigarette at an older average age than in 2010 and were the only occupation group to report a significant increase (Online Table 9.2). They were, on average, 1.8 years older when they smoked their first full cigarette than those not in the labour force—an increase from 1.3 years older in 2010.

Average age also increased for people with an educational attainment of year 12 or higher (Table 2.3). The greatest change between 2010 and 2013 was for those with a bachelor degree or higher, where the age of initiation increased by 1.6 years.



## Table 2.3: Average age at which people aged 14–24 first smoked a full cigarette, and change (years) between 2010 and 2013, by education level, 2010 and 2013

Education level	2010 (years)	2013 (years)	Change (years)
Bachelor Degree or above	15.7	17.3	<b>1</b> .6
Advanced Diploma or Diploma	15.7	16.2	<b>个</b> 0.5
Certificate	15.3	15.7	<b>个</b> 0.4
Year 12	16.1	16.7	<b>个</b> 0.6
Year 11	15.3	15.1	↓0.2
Year 10	14.5	14.0	<b>↓</b> 0.5
Year 9 or below	13.5	13.6	<b>↑</b> 0.1

Change is significant

Change is not significant

Sources: NDSHS 2010, 2013.

#### Sexual orientation

Between 2010 and 2013, the average age of initiation for people aged 14–24 increased significantly for people identifying as heterosexual (from 15.4 to 15.9 years). There was no change for people identifying as homosexual/bisexual and they continue to smoke their first cigarette at a younger average age than heterosexual people (15.2 years compared with 15.9 years) (Online Table 9.2).

#### Socioeconomic and remoteness areas

Between 2010 and 2013 the average age at which people aged 14–24 first smoked a full cigarette increased for all socioeconomic areas; however, the increases were only significant for the two highest areas (Figure 2.9). The socioeconomic gradient is evident in both 2010 and 2013—as socioeconomic position increases, so does age of initiation.

Average age also increased significantly for those living in *Major cities* (Figure 2.9). There was a slight, but not significant, decline in the age of initiation for people aged 14–24 living in *Outer regional areas*, meaning that 14–24 year olds in *Outer regional* areas were the youngest, on average, when they smoked their first full cigarette (1.5 years younger than those in *Major cities* in 2013).



Figure 2.9: Average age at which people aged 14–24 first smoked a full cigarette, by socioeconomic area and remoteness area, 2010 and 2013

#### Indicator 10: Fewer people trying cigarettes



#### **Headline results**

Secondary school students: In 2014, 19.1% of secondary students had tried a few puffs of a cigarette, declining from 23% in 2011.

Adults: In 2013, 57% of adults had smoked a full cigarette, declining from 63% in 2010.

#### **Key findings**

#### Secondary school students

Positive progress was achieved, with fewer secondary school students trying a few puffs of a cigarette at midpoint than at baseline for most groups. Significant declines were seen across both age groups (12–15 and 16–17 year olds), all socioeconomic areas, except the highest, among students living in *Major cities* and *Outer regional areas*, and across all amounts of available spending money.

Results for students in *Remote and very remote* areas worsened, with a significant increase in the proportion trying a few puffs of a cigarette, making them the most likely remoteness group to have tried a few puffs.

#### Adults

Fewer adults had tried cigarettes at midpoint than at baseline, with positive progress made for nearly all disaggregations. The only groups to not report a significant decline in the proportion smoking a full cigarette were: people aged 65 or older; Aboriginal and Torres Strait Islander (Indigenous) people; people who mainly speak a language other than English; adults whose highest educational attainment was year 10 or 11; single parents with dependent children; and people living in *Outer regional* or *Remote and very remote* areas.

#### Secondary school students:

#### **Indicator description**

The proportion of secondary school students aged 12–17 who have smoked at least a few puffs of a cigarette in their lifetime.

**Numerator:** The number of secondary school students aged 12–17 who have smoked at least a few puffs of a cigarette.

**Denominator:** The total number of secondary school students aged 12–17.

#### Adults:

#### **Indicator description**

The proportion of adults aged 18 or older who have smoked at least a full cigarette in their lifetime.

Numerator: The number of adults aged 18 or older who have smoked at least a full cigarette.

**Denominator:** The total number of adults aged 18 or older.

**Data sources:** Australian Secondary Students' Alcohol and Drug (ASSAD) Survey, 2011, 2014; National Drug Strategy Household Survey (NDSHS), 2010, 2013; National Prisoner Health Data Collection (NPHDC), 2010, 2015.



#### **Results for secondary school students**

In 2014, 19.1% of secondary school students aged 12–17 had smoked at least a few puffs of a cigarette— a significant decrease from 23% in 2011 (Online Table 10.1).

#### Age and sex

Between 2011 and 2014, the proportion of secondary school students aged 12–17 who had smoked at least a few puffs of a cigarette declined for students aged 12–15 and aged 16–17, and for both males and females (Figure 2.10; Online Table 10.1). These declines were significant for all age and sex combinations except females aged 16–17.

#### Indigenous status

Fewer non-Indigenous secondary school students aged 12–17 had smoked at least a few puffs of a cigarette in 2014 than in 2011 (Figure 2.10). However, the proportion of Indigenous students who had tried a few puffs was similar in 2011 and 2014, widening the gap in smoking uptake rates between Indigenous and non-Indigenous students (from 1.6 times as likely in 2011 to 1.9 times as likely in 2014).

#### Main language

There were significant declines in this measure between 2011 and 2014, regardless of the main language spoken at home (Figure 2.10), with students mainly speaking English at home 1.2 times as likely to have smoked at least a few puffs than students mainly speaking a language other than English in both 2011 and 2014.



Note: Other main language includes: another language only; English and another language.

Sources: ASSAD 2011, 2014 (Online tables 10.1 and 10.2).

Figure 2.10: Proportion of secondary school students aged 12–17 who had smoked at least a few puffs of a cigarette, by age group, Indigenous status and main language, 2011 and 2014

#### Socioeconomic and remoteness areas

Between 2011 and 2014, the proportion of secondary school students aged 12–17 who had smoked at least a few puffs of a cigarette declined for all socioeconomic areas, with the decline significant for all areas except the highest socioeconomic area (Figure 2.11). The change was greatest in the second-lowest and second-highest socioeconomic areas (Figure 2.12), with a lessening of the gap between the highest and lowest areas between 2011 and 2014.

The proportion trying cigarettes also declined significantly for students living in *Major cities* and *Outer regional* areas (down 19% and 43%, respectively) (Figure 2.11). Conversely, the proportion increased significantly for those living in *Remote and very remote* areas (up 31%). This meant students living in *Remote and very remote* areas went from being the least likely to have smoked at least a few puffs of a cigarette in 2011 to the most likely in 2014, and students in *Outer regional* areas went from being the most likely in 2011, to the least likely (along with students living in *Major cities*) in 2014.



Figure 2.11: Proportion of secondary school students aged 12–17 who had smoked at least a few puffs of a cigarette, by socioeconomic area and remoteness area, 2011 and 2014



#### Weekly spending money

Between 2011 and 2014, the proportion of students aged 12–15 who had smoked at least a few puffs of a cigarette declined significantly, regardless of how much weekly spending money they had, with the greatest decline for those with no spending money (down 29%) (Figure 2.13). For students aged 16–17, only those who had \$61 or more to spend each week reported a significant decline in the proportion trying cigarettes (that is, smoking at least a few puffs of a cigarette).


few puffs of a cigarette, by age group and available spending money per week (\$), 2011 and 2014

### **Results for adults**

In 2013, 57% of adults aged 18 or older had smoked a full cigarette in their lifetime—a significant decrease from 63% in 2010 (Online Table 10.6).

#### Age and sex

Between 2010 and 2013 there was a significant decline in the proportion of adults aged 18 or older who had smoked a full cigarette for men of all ages (18 or older) and for women aged 18–54 (Figure 2.14). The greatest decline was among people aged 18–24 (down 16%) (Online Table 10.6).



Figure 2.14: Proportion of adults aged 18 or older who had smoked a full cigarette, by age group (years) and sex, 2010 and 2013

#### Indigenous status

Between 2010 and 2013, the proportion of adults who had smoked a full cigarette in their lifetime only declined significantly for non-Indigenous adults (from 63% to 57%). The difference between the proportion of non-Indigenous and Indigenous adults trying smoking remained similar between 2010 and 2013 (from Indigenous adults being 1.1 times as likely to have tried cigarettes to 1.2 times as likely as non-Indigenous adults) (see Figure 2.15).

#### Main language and country of birth

Fewer adults who mainly spoke English at home had smoked a full cigarette in 2013 than in 2010 (the proportion declined significantly from 66% to 60%). While there was no change in the proportion who spoke a language other than English (35% in 2013 and 34% in 2010), they were still less likely to have smoked a full cigarette than adults who mainly spoke English (2 times as likely in 2010 and 1.7 times in 2013).

There were significant declines regardless of country of birth and, in both 2010 and 2013, adults born in Australia were 1.2 times as likely to have smoked a full cigarette as those born overseas (Online Table 10.7).

#### Employment status and education

There was a significant decline in the proportion of adults who had smoked a full cigarette across all employment categories between 2010 and 2013 (Online Table 10.7). Rates remained lowest among adults who were unemployed or looking for work (59% in 2010 and 54% in 2013) and highest among employed adults (66% and 60%, respectively).

There were also significant declines for this measure for adults who had any level of educational attainment, except those whose highest attainment was year 10 or 11 (Figure 2.15). The proportion smoking a full cigarette in 2013 ranged from 49% among adults who had attained year 12 qualifications, to 65% among those who had only completed up to year 11.

#### Household type

All household types reported a significant decline in the proportion who had smoked a full cigarette between 2010 and 2013, except single-parent households with dependent children (Figure 2.15). Single-parent households with dependent children continued to be the most likely to smoke a full cigarette in 2013 and were 1.2 times as likely as couples with dependent children to have smoked a full cigarette.



# Figure 2.15: Proportion of adults aged 18 or older who had smoked a full cigarette, by Indigenous status, education and household type, 2010 and 2013

#### Sexual orientation

A similar decline in the proportion of heterosexual people and homosexual/bisexual people smoking a full cigarette was reported between 2010 and 2013 (from 63% to 58% and from 71% to 64%, respectively) however the decline was only significant for heterosexual people (Online Table 10.7).

#### Socioeconomic and remoteness areas

Between 2010 and 2013, there was a significant decline in the proportion of adults aged 18 or older who had smoked a full cigarette in their lifetime among all socioeconomic areas (Figure 2.16), with little difference in rates across areas.



Only adults in *Major cities* and *Inner regional* areas reported a significant decline for this measure, down 10% and 9%, respectively (Figure 2.16). In 2013 the proportion of adults who had smoked a full cigarette increased with increasing remoteness, with those living in *Remote and very remote* areas around 1.2 times as likely to have smoked a full cigarette as those in *Major cities*—the same rate ratio as in 2010.



#### Prison entrants

Between 2010 and 2015, there was a decline in the proportion of adult prison entrants who had smoked a full cigarette (from 89% to 86%, respectively) and they continued to be more likely to have smoked a full cigarette than the general population (Online Table 10.9).

### Transition

# Indicator 2: Fewer young people making the transition to established patterns of smoking



#### **Headline results**

Secondary school students: In 2014, only 2.7% of secondary students had smoked more than 100 cigarettes in their lifetime, declining from 3.5% in 2011.

Young adults: In 2013, 23% of people aged 18–24 had smoked more than 100 cigarettes in their lifetime, declining from 29% in 2010.

#### **Key findings**

#### Secondary school students

Fewer secondary school students had transitioned to established patterns of smoking at midpoint than at baseline, and significant declines were seen across both age groups. Considerable progress was seen among secondary students residing in the second-lowest and second-highest socioeconomic areas, and among students living in *Outer regional* areas (where decreases of over 40% were reported).

The gap (in rates) between some at-risk groups and their most advantaged counterparts widened. For example, students living in the lowest socioeconomic areas or in *Remote and very remote* areas had the same rates as their more advantaged counterparts at baseline, but at midpoint were 1.3 and 1.5 times as likely, respectively, to have transitioned to established patterns of smoking. The gap also widened between Aboriginal and Torres Strait Islander (Indigenous) and non-Indigenous students.

#### Young adults

Fewer young adults had transitioned to established patterns of smoking at midpoint than at baseline, for both males and females, but not all groups reported positive progress. While not significant, there were increases seen among people in *Outer regional* and *Remote and very remote* areas, and for young adults who mainly spoke a language other than English at home.

The gap (in rates) between at-risk groups and their most advantaged counterparts widened for some groups (particularly area-level disaggregations) but narrowed for others (including the gap between Indigenous and non-Indigenous young adults).

#### Secondary school students:

#### **Indicator description**

The proportion of 12–17 year olds who have smoked more than 100 cigarettes in their lifetime.

Numerator: The number of secondary school students aged 12–17 who have smoked more than 100 cigarettes in their lifetime.

Denominator: The total number of secondary school students aged 12–17.

#### Young adults:

#### **Indicator description**

The proportion of 18–24 year olds who have smoked more than 100 cigarettes in their lifetime.

Numerator: The number of young adults aged 18–24 who have smoked more than 100 cigarettes in their lifetime.

Denominator: The total number of young adults aged 18-24.

**Data sources:** Australian Secondary Students' Alcohol and Drug (ASSAD) Survey, 2011, 2014; National Drug Strategy Household Survey (NDSHS), 2010, 2013.

#### **Results for secondary school students**

Between 2011 and 2014, the proportion of secondary school students aged 12–17 who had smoked more than 100 cigarettes in their lifetime declined significantly—from 3.5% to 2.7% (Online Table 2.1).

#### Age and sex

Between 2011 and 2014 the proportion of secondary school students who had smoked more than 100 cigarettes in their lifetime declined for students aged 12–15 and aged 16–17, and for both males and females (Figure 2.17). These declines were significant for all age and sex combinations except males aged 16–17.



Figure 2.17: Proportion of secondary school students aged 12–17 who had smoked more than 100 cigarettes in their lifetime, by age group (years) and sex, 2011 and 2014



#### Indigenous status

There was no significant decline in the proportion of Indigenous secondary students aged 12–17 smoking 100 cigarettes in their lifetime between 2011 and 2014 (from 8.5% to 7.6%) (Figure 2.18). However, the proportion of non-Indigenous students smoking at least 100 cigarettes did decline significantly (from 3.2% to 2.4%), widening the gap from 2.7 times as likely in 2011 to 3.2 times as likely in 2014.

#### Main language

In 2014, the proportion of secondary students aged 12–17 who had smoked 100 cigarettes in their lifetime was similar for students who mainly spoke English at home (2.7%) and students who mainly spoke a language other than English at home (2.5%) (Online Table 2.2). While both proportions declined slightly from rates in 2011 (3.6% and 2.9%, respectively), the decline was only significant for students who mainly spoke English at home.

#### Socioeconomic and remoteness areas

Between 2011 and 2014, there was a significant decline in the proportion of secondary students aged 12–17 who had smoked 100 cigarettes in their lifetime among students living in all socioeconomic areas, except the lowest and highest areas (Figure 2.18). The largest decline was among people in the second-lowest socioeconomic areas.

There were also significant declines for this measure for secondary students living in *Major cities* (from 3.4% to 2.5%) and *Outer regional* areas (from 4.7% to 2.5%), but no significant changes for students in *Inner regional* and *Remote and very remote* areas (Figure 2.18 and Table 2.4). As a result, students in *Outer regional* areas went from being the most likely to have smoked at least 100 cigarettes in 2011 to the least likely in 2014.



Sources: ASSAD 2011, 2014 (Online tables 2.2 and 2.3).

Figure 2.18: Proportion of secondary school students aged 12–17 who had smoked more than 100 cigarettes in their lifetime, by Indigenous status, socioeconomic area and remoteness area, 2011 and 2014



Table 2.4: Proportion of, and per cent change in secondary school studentsaged 12–17 who had smoked more than 100 cigarettes in their lifetime, byremoteness area, 2011 to 2014

ASGS remoteness area <sup>(a)</sup>	2011 (%)	2014 (%)	Change (%)
Major cities	3.4	2.5	<b>↓</b> 26.5
Inner regional	3.1	3.4	<b>个</b> 9.7
Outer regional	4.7	2.5	<b>↓</b> 46.8
Remote/Very remote	3.4	3.7	↑ 8.8
Change is significant	Change is not sign	nificant	

(a) Australian Statistical Geography Standard, 2011.

Sources: ASSAD 2011, 2014.

#### Weekly spending money

In 2011 and 2014, secondary school students who had more than \$100 spending money per week were the most likely to have smoked 100 cigarettes in their lifetime, but the proportion declined significantly, from 9.1% in 2011 to 6.5% in 2014 (Figure 2.19). The only other group to report a significant decline was students who had \$11-\$40 to spend each week (from 2.4% to 1.9%).



Sources: ASSAD 2011, 2014 (Online Table 2.4).

Figure 2.19: Proportion of secondary school students aged 12–17 who had smoked more than 100 cigarettes in their lifetime, by available spending money per week (\$), 2011 and 2014

#### **Results for young adults**

In 2013, 23% of young people aged 18–24 had smoked more than 100 cigarettes in their lifetime—a significant decrease from 29% in 2010 (Online Table 2.5).

#### Sex

Between 2010 and 2013, the decline in the proportion of young people aged 18–24 who had smoked 100 cigarettes in their lifetime was significant for both males and females, with males slightly more likely to have smoked 100 cigarettes than females in 2010 and 2013 (Figure 2.20).

#### Indigenous status

The proportion of Indigenous adults aged 18–24 smoking more than 100 cigarettes in their lifetime substantially declined between 2010 and 2013, from 51% to 38% (Figure 2.20). While the decline was not statistically significant, the gap between Indigenous and non-Indigenous decreased over this period—from 1.9 times as likely in 2010 to 1.7 times in 2013.

#### Main language and country of birth

There were significant declines for this measure between 2010 and 2013 for those mainly speaking English at home (from 31% down to 25%) (Figure 2.20). There was no significant change for those who mainly spoke a language other than English at home, resulting in a narrowing of the gap between these two groups—in 2013 young people who mainly spoke English at home were 1.6 times as likely to have smoked 100 cigarettes in their lifetime, compared with 2.3 times in 2010. The proportion of young adults who had smoked more than 100 cigarettes in their lifetime only declined significantly for those who were born in Australia (from 30% in 2010 to 24% in 2013), with no significant change for those born overseas (22% and 20%, respectively) (Online Table 2.5).



Sources: NDSHS 2010, 2013 (Online Table 2.5).

Figure 2.20: Proportion of young adults aged 18–24 who had smoked more than 100 cigarettes in their lifetime, by sex, Indigenous status and main language, 2010 and 2013

#### **Employment status**

Between 2010 and 2013, the proportion of students aged 18–24 who had smoked more than 100 cigarettes in their lifetime more than halved between 2010 and 2013; this was the only employment status category to report a significant decline (Table 2.5).

### Table 2.5: Proportion of, and per cent change in young adults aged 18–24 who had smoked more than 100 cigarettes in their lifetime, by employment status, 2010 and 2013

Employment status	2010 (%)	2013 (%)	Change (%)
Not in labour force	55.2	46.6	↓15.6
Unemployed/Looking for work	40.1	42.0	<b>↑</b> 4.7
Student	21.6	10.2	↓ 52.8
Currently employed	27.2	23.9	<b>↓</b> 12.1

Change is significant

DCUC 2010 2012

Change is not significant

Sources: NDSHS 2010, 2013.

#### Socioeconomic and remoteness areas

Only young adults aged 18–24 living in the second-lowest and the highest socioeconomic areas reported a significant decline in the proportion who had smoked more than 100 cigarettes in their lifetime (Figure 2.21). The decline was greatest among those in the highest socioeconomic area (down 39%), widening the gap between the highest and lowest socioeconomic areas.

There were only significant declines in this measure for 18–24 year olds living in *Major cities* and *Inner regional* areas (Figure 2.21). Conversely, it increased, but not significantly, for people living in *Outer regional and Remote and very remote* areas. The gap between areas has increased substantially over the three years from 2010 to 2013—in 2010, people in *Remote and very remote* areas were 1.5 times as likely as those living in *Major cities* to have smoked more than 100 cigarettes in their lifetime; in 2013 it increased to 2.2 times.



Figure 2.21: Proportion of young adults aged 18–24 who had smoked more than 100 cigarettes in their lifetime, by socioeconomic area and remoteness area, 2010 and 2013

### **Established smoking**

#### Indicator 1: Fewer young people smoking regularly



#### Headline result

In 2014, 5.1% of secondary students aged 12–17 smoked tobacco at least weekly, declining from 6.7% in 2011.

#### **Key findings**

Fewer secondary students smoked weekly, with positive progress achieved for most groups; however, some groups did not improve at the same rate as others.

The greatest decline in weekly smoking was among secondary school students living in *Outer regional* areas (51% decline). They went from being the most likely to smoke at baseline to the least likely at midpoint.

Aboriginal and Torres Strait Islander (Indigenous) secondary school students were still far more likely to smoke than non-Indigenous students at midpoint, with the gap (in rates) between these two groups widening between baseline and midpoint.

#### **Indicator description**

The proportion of young people aged 12–17 who smoked at least one day per week.

Numerator: The number of secondary school students aged 12–17 who smoked tobacco at least one day in the previous week.

**Denominator:** The total number of secondary school students aged 12–17.

Data source: Australian Secondary Students' Alcohol and Drug (ASSAD) Survey, 2011, 2014.

#### Results

In 2014, 5.1% of secondary school students aged 12–17 (young people) smoked tobacco at least weekly—a significant decrease from 6.7% in 2011 (Online Table 1.1).

#### Age and sex

This decline between 2011 and 2014 was significant for both males and females, and for both the 12–15 and 16–17 age groups. (Males and 16–17 year olds had higher weekly smoking rates than their counterparts) (Online Table 1.1).

#### Indigenous status

The proportion of non-Indigenous secondary school students aged 12–17 smoking weekly declined significantly between 2011 and 2014 (from 6.3% to 4.7%) (Figure 2.22). The decline for Indigenous secondary students was not significant, increasing the gap in weekly smoking rates between Indigenous and non-Indigenous students (2.6 times as likely to smoke in 2014 compared with 2.1 times in 2011).

#### Main language

Between 2011 and 2014 the proportion of secondary school students aged 12–17 who smoked at least weekly declined, regardless of main language spoken at home; however, the decline was only significant for students who mainly spoke English at home (Figure 2.22).



## Figure 2.22: Proportion of secondary school students aged 12–17 who smoked at least weekly, by Indigenous status and main language, 2011 and 2014

#### Socioeconomic area

The proportion of secondary school students smoking weekly declined for all socioeconomic areas between 2011 and 2014, however the decline was not significant for students in the lowest and highest areas (Figure 2.23). Considerable progress was made among students living in the second-lowest socioeconomic area—a decrease of 41% was reported in the proportion smoking weekly—moving this group from the most likely to smoke weekly in 2011 to the least likely in 2014.



Sources: ASSAD 2011, 2014 (Online Table 1.3).

Figure 2.23: Proportion of secondary school students aged 12–17 who smoked at least weekly, by socioeconomic area, 2011 and 2014

#### Remoteness area

Between 2010 and 2013 there were significant decreases in the proportion of secondary school students smoking weekly who lived in *Major cities* or *Outer regional* areas (Table 2.6). While it was not a significant change, the proportion of secondary school students who smoked weekly increased for those living in *Remote and very remote* areas, moving this group from being the least likely to smoke weekly in 2011, to the most likely in 2014.

### Table 2.6: Proportion of, and per cent change in secondary school students aged 12–17 who smoked at least weekly, by remoteness area, 2011 to 2014

Remoteness area <sup>(a)</sup>	2011 (%)	2014 (%)	Change (%)
Major cities	6.2	4.9	<b>↓</b> 21.0
Inner regional	6.7	6.0	<b>↓</b> 10.4
Outer regional	9.8	4.8	<b>↓</b> 51.0
Remote/Very remote	5.0	7.0	<b>个</b> 40.0

(a) Australian Statistical Geography Standard, 2011.

Sources: ASSAD 2011, 2014.

#### Weekly spending money

Change is significant

The proportion of secondary school students aged 12–15 smoking weekly significantly declined for those with \$11–40 or \$61–100 to spend each week. For those aged 16–17, the decline was only significant for students who had more than \$100 to spend each week (from 17.5% to 12.0%) They were the most likely to smoke in 2011, but in 2014 were less likely to smoke than those with \$41–100 to spend) (Online Table 1.4).

Change is not significant

#### Indicator 13: Fewer young people smoking



#### **Headline result**

In 2014, 7.5% of secondary students aged 12–17 smoked tobacco at least monthly, declining from 8.9% in 2011.

#### **Key findings**

Fewer secondary school students smoked monthly at midpoint than at baseline, with positive and significant progress reported for both 12–15 and 16–17 year olds. Only some groups reported significant improvements—non-Indigenous students, students who mainly spoke English at home, students living in the second-lowest and second-highest socioeconomic areas, and students in *Major cities* and *Outer regional* areas. The proportion increased for some groups—Aboriginal and Torres Strait Islander (Indigenous) students and students in *Inner regional* and *Remote and very remote* areas—but the increase was not significant.

The gap (in rates) between some at-risk groups and their most advantaged counterparts widened between baseline and midpoint (including for Indigenous students and those living in *Remote and very remote* areas).

#### **Indicator description**

The proportion of secondary school students aged 12–17 who smoked at least once in the previous 4 weeks.

**Numerator:** The number of secondary school students aged 12–17 who reported smoking tobacco at least once in the previous 4 weeks.

Denominator: The total number of secondary school students aged 12–17.

Data source: Australian Secondary Students' Alcohol and Drug (ASSAD) Survey, 2011, 2014.

#### Results

In 2014, 7.5% of secondary school students aged 12–17 (young people) smoked tobacco at least monthly (monthly smokers)—a significant decrease from 8.9% in 2011 (Online Table 13.1).

#### Age and sex

The decline between 2011 and 2014 was significant for both males and females (from 9.2% to 7.3% and from 8.7% to 7.7%, respectively), and for the 12–15 and 16–17 age groups (from 5.6% to 4.3% and from 17.0% to 15.0%, respectively). In 2014, monthly smoking was most common among males aged 16–17 (15.5%) (Online Table 13.1).

#### Indigenous status

The proportion of non-Indigenous secondary school students aged 12–17 smoking monthly decreased significantly between 2011 and 2014 (from 8.6% to 6.9%), but the same was not true for Indigenous students (a slight, but not significant increase in monthly smoking, from 15.3% to 16.8%) (Figure 2.24). As a result, the gap between Indigenous and non-Indigenous students widened, with Indigenous students 2.4 times as likely to smoke monthly as non-Indigenous in 2014, compared with 1.8 times in 2011.

#### Main language

The proportion of secondary school students aged 12–17 smoking at least monthly only significantly declined for those who mainly spoke English at home (from 9.3% to 7.8%) (Figure 2.24).



### Figure 2.24: Proportion of secondary school students aged 12–17 who smoked at least monthly, by Indigenous status and main language, 2011 and 2014

#### Socioeconomic and remoteness areas

The proportion of secondary school students smoking monthly significantly decreased for students living in the second-lowest and second-highest socioeconomic areas, with little change reported among other areas (Figure 2.25). Students living in the lowest socioeconomic area were the most likely to smoke in 2014 (8.6%), with similar rates for all other areas (ranging from 7.1% to 7.4%).

There was only a significant decline for this measure for secondary school students living in *Major cities* and *Outer regional* areas (Figure 2.25). The rate of monthly smoking for students in *Outer regional* areas nearly halved (from 13.2% to 6.8%), switching them from being the most likely to smoke in 2011 to the least likely in 2014. Conversely, students living in *Remote and very remote* areas switched from being the least likely to smoke in 2011 to the most likely in 2014.



#### Weekly spending money

The proportion of secondary school students aged 12–17 smoking monthly only significantly declined for those with more than \$100 to spend each week (from 18.6% to 14.3%) (Online Table 13.4).

#### Indicator 3: Fewer adults smoking regularly



#### **Headline result**

In 2014–15, daily smoking among adults continued to decline, from 18.9% in 2007–08 to 14.5%.

#### **Key findings**

Fewer adults smoked daily at midpoint than at baseline, with positive progress apparent for nearly all groups. Significant declines were seen for people aged 18–54, all household types, all states and territories except the Northern Territory, and for adults in *Major cities* and *Inner regional* areas.

The gap (in rates) between at-risk groups and their most advantaged counterparts widened for some groups (for example, single parents with dependent children), but narrowed for others (for example, adults living in *Remote* areas).

#### **Indicator description**

A regular adult smoker is defined as an adult who smokes 1 or more cigarettes, roll-your-own cigarettes, cigars or pipes at least once a day. Chewing tobacco and the smoking of non-tobacco products were excluded.

Numerator: The number of people aged 18 or older who smoke tobacco at least once a day.

**Denominator:** The total number of people aged 18 or older.

Data sources: National Health Survey (NHS), 2007–08, 2011–12, 2014–15; National Prisoner Health Data Collection (NPHDC), 2010, 2015.

#### Results

In 2014–15, 14.5% of adults smoked cigarettes, roll-your-own cigarettes, cigars or pipes at least once a day—a significant decrease from 18.9% in 2007–08 (Online Table 3.1). This decline was still significant after adjusting for differences in the age structure of the populations (14.8% of adults smoked daily in 2014–15, compared with 19.1% in 2007–08) (Online Table 3.5).

#### Age and sex

The decline in the daily smoking rates between 2007–08 and 2014–15, was only significant for people aged 18–54 (Figure 2.26). The decline was also significant for both males and females, but was greater for females (down 29% compared with 19% for males) (Online Table 3.1).



#### Main language and country of birth

Daily smoking rates among adults declined significantly between 2007–08 and 2014–15, both for adults where English was mainly spoken at home and where a language other than English was mainly spoken at home (Online Table 3.2). The decline was greater for adults who mainly spoke a language other than English (down 30%), resulting in a widening of the gap between the two groups; in 2014–15 adults who mainly spoke English at home were 1.8 times as likely to smoke—an increase from 1.6 times in 2007–08.

The prevalence of daily smoking in adults varied with country of birth (Online Table 3.2). Figure 2.27 shows declining rates for adult daily smoking between 2007–08 and 2014–15 for all five countries/regions of birth that had the highest daily smoking rates at baseline (2007–08); all declines were significant except for New Zealand, Greece and 'other Oceania'.



#### Employment status and education

Between 2007–08 and 2014–15, daily smoking significantly declined for employed adults (from 20% to 14.8%) and adults who were not in the labour force (24% to 19.7%) (Online Table 3.2).

Daily smoking also declined significantly for people with any non-school qualification, specifically those with a bachelor degree, diploma or certificate (I, II, III or IV) (Figure 2.28). There was no change for those without a non-school qualification and the gap between those with and without non-school qualifications widened between 2007–08 and 2014–15—from 1.2 times to 1.6 times as likely.

#### Household type

Between 2007–08 and 2014–15, the rate of adult daily smoking declined significantly for all household types, with the decline greatest for adults living in couple households with dependent children (down 34%) (Figure 2.28). In 2014–15, single parents with dependent children were 2.5 times as likely to smoke daily as couples with dependent children (30% compared with 11.8%)—an increase from 2.1 times as likely in 2007–08.

#### Remoteness area

Daily smoking among adults declined significantly between 2007–08 and 2014–15, in *Major cities* and *Inner regional* areas (Figure 2.28). While not statistically significant, the decline was greatest for *Remote* areas (down 31%, from 28% in 2007–08 to 18.8 it 2014–15%), resulting in a narrowing of the gap—in 2014–15, adults in *Remote* areas were 1.4 times as likely to smoke daily than adults living in *Major cities*, a decrease from 1.6 times in 2007–08.



Sources: NHS 2007–08, 2014–15 (Online tables 3.2 and 3.3).

Figure 2.28: Proportion of daily smokers aged 18 or older, by (selected) education, household type and remoteness area, 2007–08 and 2014–15

#### States and territories

Between 2007–08 and 2014–15, daily smoking among adults declined significantly for all states and territories except the Northern Territory (Figure 2.29). This was also the case after adjusting for differences in the age structure of the populations (Online Table 3.6). The decline was greatest for South Australia (daily smoking rates down 33%, from 19.5% to 13.1%). The lowest rates were in the Australian Capital Territory and the highest in the Northern Territory in both 2007–08 and 2014–15.



#### Prison entrants

There was also a decline in the proportion of prison entrants who reported smoking regularly (daily or most days) between 2010 and 2015—regular smoking dropped five percentage points, from 74% to 69% (Online Table 3.7).

# Indicator 14: Current adult smokers smoking occasionally (weekly or less than weekly)



#### **Headline result:**

In 2014–15, 9.6% of current smokers smoked weekly or less than weekly, similar to the proportion of 9.0% in 2007–08.

#### **Key findings**

There was no overall change to the proportion of adult smokers reporting they smoked only occasionally, with Aboriginal and Torres Strait Islander (Indigenous) smokers the only group to see a significant change (decline from 4.3% to 2.2% between 2008 and 2012–13).

Younger adults (aged 18–24), adults with a bachelor degree or higher level of educational attainment and adults living in the highest socioeconomic area were the most likely to smoke only occasionally at both baseline and midpoint.

#### **Indicator description**

An adult smoker who smokes 1 or more cigarettes, roll-your-own cigarettes, cigars or pipe weekly or less than weekly, but not daily.

Numerator: The number of people aged 18 or older who smoke tobacco weekly or less than weekly, but not daily.

Denominator: The total number of current smokers aged 18 or older.

**Data sources:** National Health Survey (NHS), 2007–08, 2011–12, 2014–15; National Aboriginal and Torres Strait Islander Social Survey (NATSISS), 2008; Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS), 2012–13; National Prisoner Health Data Collection (NPHDC), 2010, 2015.

#### Box 2.2: Interpretation of results: the interplay between indicators 3 and 14

Daily smoking is a calculated as a proportion of the whole population aged 18 and over. Occasional smoking is calculated as a proportion of current smokers aged 18 and over who smoke weekly or less than weekly, but not daily. Current smokers include daily and occasional smokers and a change in the proportion of daily smokers in the population will impact on the denominator used to calculate occasional smokers.

Therefore, where occasional smoking rates have increased, it may be a result of decreasing daily smoking rates, and it cannot be implied that daily smokers have transitioned to being occasional smokers or that more people have become occasional smokers. 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.

#### Results

In 2014–15, 9.6% of adults who currently smoked cigarettes, roll-your-own cigarettes, cigars or pipes did so weekly or less than weekly, but not daily (occasionally)—no significant change from the proportion in 2007–08 (9.0%) (Online Table 14.1).

#### Age and sex

Smokers aged 18–24 were the most likely to smoke occasionally (18.3%), in both 2007–08 and 2014–15. While rates of occasional smoking increased slightly between 2007–08 and 2014–15 among males, females and most age groups, none of these changes were significant (Figure 2.30).



#### Indigenous status

The proportion of Indigenous adult smokers who were occasional smokers almost halved between 2008 and 2012–13, (a significant decline from 4.3% to 2.2%) (Figure 2.31). The gap in occasional smoking rates between Indigenous and non-Indigenous smokers widened over this period, from non-Indigenous smokers being 2.1 times as likely as Indigenous smokers to only smoke occasionally in 2007–08, to 4.7 times in 2012–13 (compared with the non-Indigenous rate in 2011–12).



Sources: NATSISS 2008; AATSIHS 2012–13; NHS 2007–08, 2011–12 (Online Table 14.4).

### Figure 2.31: Proportion of smokers aged 18 or older who smoked occasionally, by Indigenous status, 2008 and 2012–13 and 2007–08 and 2011–12

#### Main language

While not significant, between 2007–08 and 2014–15 the increase in occasional smoking rates was greater for adults who mainly spoke a language other than English at home (up 35%), than for adults who mainly spoke English (up 6%) (Figure 2.32).

#### Education

In 2007–08 and 2014–15, occasional smoking generally increased as level of educational attainment increased (Figure 2.32). Between 2007–08 and 2014–15, there were no significant changes in smokers at any level of educational attainment reporting occasional smoking.



### Figure 2.32: Proportion of smokers aged 18 or older who smoked occasionally, by main language and education, 2007–08 and 2014–15

#### Household type

There were no significant changes in the proportion of occasional smokers for any household type between 2007–08 and 2014–15 (Online Table 14.2).

#### Socioeconomic area

There were no significant changes between 2007–08 and 2014–15 in the proportion of adult smokers who smoked occasionally; however, the proportion of occasional smokers increased in the highest two socioeconomic areas and decreased in the remaining areas (Figure 2.33).

#### Remoteness area

Occasional smoking among current smokers did not change significantly between 2007–08 and 2014–15 for smokers living in *Major cities, Inner regional* and *Outer regional* areas (Figure 2.33). But the proportion of occasional smokers in *Outer regional* areas halved over this period (from 5.7% in 2007–08 to 2.9% 2014–15).



#### Prison entrants

There was a decline in the proportion of prison entrants who were current smokers but only smoked occasionally (at least once a week or less than once a week, but not daily or on most days) between 2010 and 2015—from 10.8% to 6.8% (Online Table 14.5).

#### Indicator 8i: Fewer adults smoking regularly among Aboriginal and Torres Strait Islander people



#### **Headline result**

In 2012–13, 44% of Aboriginal and Torres Strait Islander adults smoked daily, declining from 48% in 2008.

#### **Key findings**

Significantly fewer Aboriginal and Torres Strait Islander (Indigenous) adults smoked at midpoint than at baseline; however, the gap in smoking rates between Indigenous and non-Indigenous adults widened. There was also a widening of the gap in daily smoking rates among some groups of Indigenous adults; for example, among those living in the highest and lowest socioeconomic areas and among Indigenous adults with or without non-school qualifications.

While progress was generally favourable, declines in the daily smoking rate were only significant for some groups, such as those who were employed, mainly spoke English at home or who were living in New South Wales.

#### **Indicator description**

The proportion of Aboriginal and Torres Strait Islander people aged 18 or older who smoked daily.

**Numerator:** The number of Aboriginal and Torres Strait Islander people aged 18 or older who smoked daily.

Denominator: The total number of Aboriginal and Torres Strait Islander people aged 18 or older.

**Data sources:** National Aboriginal and Torres Strait Islander Social Survey (NATSISS) 2008; Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2014–15; National Health Survey (NHS), 2007–08, 2011–12, 2014–15; National Prisoner Health Data Collection (NPHDC), 2010, 2015.

#### **Results for Indigenous adults**

In 2012–13, 44% of Indigenous people aged 18 and older smoked daily—a significant decrease from 48% in 2008 (Online Table 8i.1).

#### Comparison with non-Indigenous adults

Daily smoking rates have declined significantly for both Indigenous and non-Indigenous adults since 2007–08. The daily smoking rate declined by 7% for Indigenous adults between 2008 and 2012–13, compared with a decline of 15% for non-Indigenous people (between 2007–08 and 2011–12) (Figure 2.34). This difference in progress means that the gap for daily smoking among Indigenous and non-Indigenous people has widened between baseline and midpoint. In 2007–08 Indigenous adults were 2.6 times as likely to smoke daily as non-Indigenous adults; in 2012–13 they were 2.8 times as likely (comparing with the non-Indigenous daily smoking rate in 2011–12).

When considering age-standardised daily smoking rates (to account for differences in the age structures of the Indigenous and non-Indigenous populations), Indigenous adults were still far more likely to smoke daily. The likelihood was slightly less but the gap still widened between baseline and midpoint. Indigenous adults were 2.6 times as likely as non-Indigenous adults to smoke daily in 2011–13, compared with 2.4 times in 2007–08 (Figure 2.34).



#### Age and sex

Between 2008 and 2012–13 daily smoking among Indigenous adults declined significantly for people aged 18–24 (from 50% to 43%). This fall was driven by a significant decline for females aged 18–24 (from 49% to 41%). No other declines were significant for males or females or any other age groups (Figure 2.35 and Online Table 8i.1).



#### Main language

The rate of daily smoking only declined significantly for Indigenous Australians who mainly spoke English at home (Online Table 8i.2).

#### Employment status and education

A significantly lower proportion of employed Indigenous adults smoked daily in 2012–13 than in 2008 (37% and 43%, respectively). The slight decline in daily smoking among unemployed Indigenous adults was not significant and, apart from prisoners, they remained the group most likely to smoke daily at baseline and midpoint (60% in 2012–13) (Online Table 8i.2).

Significantly fewer Indigenous adults who had a non-school qualification (for example a diploma or bachelor degree) smoked daily in 2012–13 than in 2008 (declining from 42% to 38%) (Online Table 8i.2). There was no significant change in this measure among those without a non-school qualification, except among those whose highest level of attainment was year 11 (who, unfavourably, reported a significant increase in daily smoking—from 44% to 52%). The gap among Indigenous adults with or without non-school qualifications widened between 2008 and 2012–13, from 1.1 times as likely to smoke daily in 2008 to 1.3 times in 2012–13.

#### Household type

There were no statistically significant differences in daily smoking rates among different household types. In 2012–13, single-parent households with children were the most likely to smoke daily and couple households without children were the least likely (50% and 36% respectively) (Online Table 8i.2).

#### Socioeconomic and remoteness areas

Daily smoking rates for Indigenous adults declined across all socioeconomic areas but decreases were not significant for any area (Figure 2.36). The declines in rates were not equal across socioeconomic areas; for example, daily smoking rates decreased by 5% for adults in the two lowest socioeconomic areas, but by 36% for adults in the highest area, resulting in a widening of the gap between the highest and lowest areas. In 2008, Indigenous adults living in the lowest socioeconomic areas were 1.4 times as likely to smoke daily—increasing to 2.1 times in 2012–13.

There was a significant decline in this measure for Indigenous adults living in non-remote areas (*Major cities* or *Regional* areas), driven by the decline for those living in *Outer regional* areas, where daily smoking decreased significantly from 49% in 2008 to 42% in 2012–13 (Figure 2.36). Indigenous adults living in *Major cities* continued to have the lowest daily smoking rate (40%) and those living in *Very remote* areas continued to have the highest (54%) in 2012–13.



Figure 2.36: Daily smoking, Indigenous people aged 18 or older, by socioeconomic area and remoteness area, 2008 and 2012–13



#### States and territories

A lower proportion of Indigenous adults reported smoking daily in all states and territories between 2008 and 2012–13, except in the Northern Territory, but the change was only significant among those living in New South Wales (down from 50% to 43%) (Figure 2.37). After accounting for the differing age structures of the states and territories, New South Wales was still the only jurisdiction to report a significant decline in the daily smoking rate (from 48% to 42% between in 2008 and 2012–13), and the Northern Territory reported a slight (not significant) increase (Online Table 8i.7).



Sources: NATSISS 2008; AATSIHS 2012-13 (Online Table 8i.4).

### Figure 2.37: Daily smoking, Indigenous people aged 18 or older, by state and territory, 2008 and 2012–13

#### Prison entrants

The proportion of Indigenous prison entrants smoking daily remained stable between 2010 and 2015 (74% and 73%, respectively) (Online Table 8i.8) and was considerably higher than for the general Indigenous population.





#### **Headline result**

In 2014–15, 22% of adults living in the lowest socioeconomic area and 17.4% of adults living in the second-lowest socioeconomic area smoked daily, declining from 28% and 21%, respectively, in 2007–08.

#### **Key findings**

While significantly fewer adults living in the two lowest socioeconomic areas smoked daily at midpoint than at baseline, they are not making progress at the same rate as people in the highest socioeconomic area—with the gap between these groups widening.

Among people living in the lowest socioeconomic areas, significant declines were seen for: males and females, adults who mainly spoke English at home, 25–44 year olds, single and couple households with dependent and non-dependent children, and adults residing in *Major cities*.

#### Indicator description

The proportion of people aged 18 or older living in the two lowest socioeconomic quintiles who smoke daily.

Numerator: The number of people aged 18 or older living in the two lowest socioeconomic areas who smoked tobacco daily. 2007–08 data are based on the 2006 Index of Relative Socio-Economic Advantage and Disadvantage. 2014–15 data are based on the 2011 Index of Relative Socio-Economic Advantage and Disadvantage.

Denominator: The total number of people aged 18 or older living in the lowest two socioeconomic areas.

Data sources: National Health Survey (NHS), 2007–08, 2014–15.

#### Results

Fewer adults of low socioeconomic position smoked regularly in 2014–15, with the proportion of adults smoking tobacco daily declining significantly between 2007–08 and 2014–15 for people living in the lowest socioeconomic area (from 28% to 22%) and second-lowest socioeconomic area (from 21% to 17.4%) (Figure 2.38). Significant declines were reported across all socioeconomic areas but the declines were greatest for people living in the second-highest and highest socioeconomic areas (Figure 2.39). This resulted in a widening of the gap between people living in the lowest and second-lowest socioeconomic areas and those living in the highest area (see rate ratios in Table 2.7).



Sources: NHS 2007–08, 2014–15 (Online tables 8ii.1 and 8ii.2).

Figure 2.38: Proportion of adults aged 18 or older who smoked tobacco daily, by socioeconomic area and by (selected) socioeconomic area and sex, 2007–08 and 2014–15



by socioeconomic area, 2007–08 to 2014–15



	Rate ratio		
	Lowest / highest socio-economic area	/ Second-lowest highest socio-economic area	
2007–08	2.5	1.9	
2014–15	2.8	2.2	

Sources: NHS 2007–08, 2014–15.

Positive progress was also made among adults living in the lowest socioeconomic deciles, with daily smoking rates declining by one-third between 2007–08 and 2014–15 (decreasing significantly from 31% to 21%). However, a large disparity in smoking rates was still apparent between adults living in the lowest decile (bottom tenth) as daily smoking rates were 3 times as high as adults living in the highest decile (top tenth)—21% compared with 6.8% (Online Table 8ii.1).

#### Age and sex

Between 2007–08 and 2014–15, the decline in daily smoking among adults living in the lowest socioeconomic area was only significant for people aged 25–44 (from 35% to 25% for 25–34 year olds and from 40% to 28% for 35–44 year olds). For those in the second-lowest area, it was only significant for 18–24 year olds, with the daily smoking rate halving (from 23% to 11.5%) (Online Table 8ii.2). Only adults aged 55 or older in the highest socioeconomic area reported a significant decline in daily smoking (from 9.5% in 2007–08 to 6.0% in 2014–15).

There were significant declines in this measure for women living in all socioeconomic areas, but only for those men who lived in the lowest and second-highest socioeconomic areas (Figure 2.38). Men were more likely to smoke daily than women across all socioeconomic areas.

#### Employment status and education

Significantly fewer employed adults smoked daily in 2014–15 than in 2007–08 for all socioeconomic areas except for employed adults living in the highest socioeconomic areas (Figure 2.40 and Online Table 8ii.2). Daily smoking also declined significantly among people living in the lowest socioeconomic areas who were not in the labour force.

Daily smoking rates declined significantly for adults with a non-school qualification living in all socioeconomic areas except the highest (Online Table 8ii.2). Rates also significantly declined for those who did not have a non-school qualification living in the lowest socioeconomic area, specifically among those with an educational attainment of year 10 or 11. Even among people with equal educational attainment, daily smoking rates generally increased as socioeconomic position declined. For example, in 2014–15, among people who had a bachelor degree or higher, those living in the lowest socioeconomic area. 2 times as likely to be a daily smoker as those living in the highest area.

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#### Household type

There were significant declines in this measure for adults living in couple households with dependent children for all socioeconomic areas, except for those in the second-lowest area (Figure 2.40). Adults living in single-parent households with dependent children only had significant declines if they were living in the lowest socioeconomic area, meaning that, while they were the most likely to smoke daily, the difference between single parents in the lowest and highest socioeconomic areas decreased (from a high of a 34% difference in 2007–08 to a 19.2% difference in 2014–15).



Note: Data for unemployed, daily smokers living in the highest socioeconomic area not published.

Sources: NHS 2007-08, 2014-15 (Online tables 8ii.1 and 8ii.2).

Figure 2.40: Proportion of adults aged 18 or older who smoked tobacco daily, by (selected) socioeconomic area, (selected) employment status and (selected) household structure, 2007–08 and 2014–15

#### Remoteness area

Between 2007–08 and 2014–15, the daily smoking rate for adults living in the lowest socioeconomic areas:

- significantly declined for those living in *Major cities* (from 28% to 19.5%)
- did not significantly decline for those living in *Inner regional* and *Outer regional* areas and appeared to increase for those in *Remote* areas (from 25% to 31%)
- was higher across all remoteness areas when compared with adults living in the highest and second-highest socioeconomic areas (Online Table 8ii3).

### Cessation

#### Indicator 4: More smokers attempting to quit

#### **Headline result:**

In 2013, 47% of adult smokers made an attempt to quit smoking, similar to the proportion of 45% in 2010.

#### **Key findings**

There were few significant changes among adult smokers making quit attempts, either successfully (giving up smoking for more than a month), or who tried to give up smoking but were unsuccessful, between 2010 and 2013.

Significantly more adult smokers made a quit attempt if they were male or employed.

Single smokers without children and smokers in *Outer regional* areas were significantly more likely to have successfully given up smoking for a month in 2010 than in 2013, but smokers aged 55–64 were significantly less likely to have given up successfully for more than a month.

#### **Indicator description**

The proportion of people aged 18 or older who have smoked in the previous 12 months, who reported successfully giving up smoking for more than a month or tried to give up smoking but were unsuccessful in the previous 12 months.

Numerator: The number of people aged 18 or older, who have smoked in the previous 12 months, and who successfully gave up smoking for more than a month or unsuccessfully tried to give up in the previous 12 months.

Denominator: The total number of smokers aged 18 or older.

Data source: National Drug Strategy Household Survey (NDSHS), 2010, 2013.

#### Results

Between 2010 and 2013, there was no significant change in the proportion of smokers who made any quit attempt, that is successfully gave up smoking for more than a month or tried to give up smoking but were unsuccessful—45% in 2010 and 47% in 2013. In 2013, 20% of smokers successfully gave up for more than a month (19% in 2010), and 31% tried to give up unsuccessfully in the previous 12 months before the survey (29% in 2010).

#### Age and sex

The proportion of male smokers aged 18 or older who made any quit attempt increased significantly between 2010 and 2013—from 44% to 48%—mainly driven by a significant increase in the proportion who tried to give up but were unsuccessful (from 27% to 31%) (Online Table 4.2). There were no significant changes for female smokers.

The only age group with a significant change was smokers aged 55–64, with a significantly lower proportion successfully giving up smoking for at least a month (from 17.9% in 2010 down to 13.0% in 2013) (Online Table 4.2). Older smokers (45 years and over) were generally less likely to attempt to quit than younger smokers under 45 years of age in both 2010 and 2013 (Figure 2.41).



### Figure 2.41: Smokers aged 18 or older who made any quit attempt in the previous 12 months, by age group, 2010 and 2013

#### Indigenous status

While not significant, a slightly lower proportion of Aboriginal and Torres Strait Islander (Indigenous) smokers had successfully given up smoking for a month or more in 2013 than in 2010 (Figure 2.42). At baseline and midpoint, Indigenous smokers were more likely to try to quit smoking than non-Indigenous smokers but were less likely to succeed—in 2013, 39% tried to give up but were unsuccessful compared with 30% for non-Indigenous smokers.

#### Main language and country of birth

A similar proportion of smokers who mainly spoke English or a language other than English, had made quit attempts in 2013; the proportion was also similar for smokers born in Australia or overseas (proportions ranged from 46% to 50%) with no significant changes for any group between 2010 and 2013 (Online Table 4.2).

#### **Employment status**

A significantly greater proportion of employed smokers made a quit attempt in 2013 than in 2010 (48% compared with 44%) (Figure 2.42). No other significant changes were reported; however, the proportion of unemployed smokers making any quit attempt declined over this period—from 50% to 43%.



Sources: NDSHS 2010, 2013 (Online Table 4.2).

Figure 2.42: Smokers aged 18 or older who made any quit attempt in the previous 12 months, by Indigenous status and employment status, 2010 and 2013

#### Household type

Although not significant, there was a 20% increase in the proportion of parents with non-dependent children who made quit attempts in 2013 (from 38% in 2010 to 46% in 2013). A significantly greater proportion of single smokers without children had successfully given up smoking for at least 1 month in 2013 than in 2010 (up from 16% to 22%) (Online Table 4.2).

#### Socioeconomic and remoteness areas

The only socioeconomic area to report a significant change in quit attempts in 2013 were smokers living in the second-lowest socioeconomic area (from 44% in 2010 to 50% in 2013) (Figure 2.43 and Online Table 4.3).

There was a significant increase in the proportion of smokers in *Outer regional* areas who had successfully given up for more than a month (from 14% in 2010 to 19% in 2013). However, there were no significant changes in the proportion of smokers making any quit attempt for any remoteness areas, with similar rates across all areas in 2013—ranging from 45% in *Remote and very remote* areas to 48% in *Inner regional* areas (Figure 2.43).



Sources: NDSHS 2010, 2013 (Online Table 4.3).

Figure 2.43: Smokers aged 18 or older who successfully gave up smoking for more than a month or made any quit attempt in the previous 12 months, by socioeconomic area and remoteness area, 2010 and 2013
## Indicator 11: Adult ever-smokers are quitting at a younger age

#### **Headline result:**

In 2013, the average age adult smokers quit smoking was 35.4 years, no change from 35.3 years in 2010.

#### **Key findings**

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There was no change to the average age at which ever-smokers reported no longer smoking between baseline and midpoint. However this finding is not surprising, as trend for this indicator may require a greater period of time to be detected.

The only group to report a significant change between baseline and midpoint were adult ever-smokers without a non-school qualification (that is, their highest educational attainment was year 12 or below). However, this group reported an undesirable increase in average quit age.

At baseline and midpoint, average quit age followed a socioeconomic gradient—that is, the higher an ex-smoker's socioeconomic position, the younger they were on average when they quit.

#### **Indicator description**

The average age adult ex-smokers (smoked at least 100 cigarettes in their lifetime and have not smoked in the previous 12 months) smoked their last cigarette.

**Numerator:** The sum of age (in years) of adult ex-smokers no longer smoking.

Denominator: The total number of ex-smokers aged 18 or older.

Data source: National Drug Strategy Household Survey (NDSHS), 2010, 2013.

#### Results

There was no significant change in the average age at which ex-smokers (smoked at least 100 cigarettes in their lifetime (ever-smokers) and have not smoked in the last 12 months) aged 18 or older reported no longer smoking (quit) between 2010 and 2013—35.3 years in 2010 and 35.4 years in 2013 (Online Table 11.1).

#### Sex

Between 2010 and 2013, the average age at which adult-ever-smokers quit smoking did not change significantly for males or females, with males reporting no longer smoking, on average, 1.7 years older than females in 2013—compared with being 2.3 years older in 2010 (Figure 2.44).

#### Indigenous status

Between 2010 and 2013, there were no significant changes in the average age Aboriginal and Torres Strait Islander (Indigenous) or non-Indigenous adults quit smoking (Figure 2.44), but there was a change in the difference between the two groups. In 2010 Indigenous ex-smokers reported no longer smoking, on average, 0.4 years younger than non-Indigenous ex-smokers, whereas in 2013 they were 1.6 years older.

#### Main language

There were no significant changes in this measure for adults who mainly spoke English at home or for those who mainly spoke a language other than English at home, but there was a slight change in the difference between the two groups. In 2010, adults mainly speaking English at home quit, on average 0.7 years younger than adults who mainly spoke a language other than English; in 2013 they were 1.2 years younger (Online Table 11.1).



#### Employment status and education

While there was no significant change between 2010 and 2013 in the average age adult ex-smokers reported quitting, those who were not in the labour force were consistently much older when they quit than those who were employed, unemployed or looking for work (2.8 years older than those who were unemployed or looking for work in 2012 and 3.1 years older in 2013) (Figure 2.44).

Adult ex-smokers who did not have a non-school qualification (for example, a diploma or bachelor degree) were, unfavourably, significantly older in 2013 when they quit smoking (on average 38.1 years), compared with 2010 (36.8 years) (Online Table 11.1). They were the only group to report a significant change in this measure, resulting in a widening of the gap between average quit age for people with and without non-school qualifications—in 2013 people without a non-school qualification quit smoking, on average, 4.3 years older than those with a post-school qualification. This compares with a difference of 2.4 years in 2010.



Figure 2.44: Average age at which ex-smokers aged 18 or older quit smoking, by sex, Indigenous status and employment status, 2010 and 2013

#### Household type

There were no significant changes in this measure among different household types. Ex-smokers living in couple families with dependent children quit at the youngest average age in 2013 and 2010, (30 years), quitting 12.2 years younger than people living in single households with no children in 2013 (a widening of the gap from 10.8 years in 2010) (Online Table 11.1).

#### Socioeconomic and remoteness areas

There were no significant changes to this measure across socioeconomic areas (Figure 2.45). In both 2010 and 2013 average quit age followed a socioeconomic gradient—that is, the higher an ex-smoker's socioeconomic position, the younger they were when they quit. In 2013 adult ex-smokers living in the highest socioeconomic area quit, on average, when they were 4.8 years younger than those in the lowest socioeconomic area, which is similar to the 2010 finding (4.4 years).

The average quit age for adult smokers varied little between remoteness areas (ranging from 35.2 years in *Major cities* to 36.3 years in *Inner regional* areas in 2013), with no significant changes between 2010 and 2013 for any area (Figure 2.45).



Sources: NDSHS 2010, 2013 (Online Table 11.2).

Figure 2.45: Average age at which ex-smokers aged 18 or older quit smoking, by socioeconomic area and remoteness area, 2010 and 2013

## Indicator 12: More adult ever-smokers no longer smoking



#### **Headline result**

In 2013, 52% of adult ever-smokers reported not smoking in the previous 12 months, increasing from 47% in 2010.

#### **Key findings**

More adult ever-smokers were no longer smoking at midpoint than at baseline. While positive progress was made for almost all groups, it was not significant for many. Generally, a significantly greater proportion of ever-smokers reported that they had not smoked in the previous 12 months among the relatively more advantaged cohorts (non-Indigenous, spoke mainly English at home, employed or not in the labour force, living in the two highest socioeconomic areas or living in *Major cities*).

In many cases, the gap (in rates) between at-risk groups and their relatively more advantaged counterparts narrowed, meaning the rate inequality within many groups lessened slightly.

#### **Indicator description**

The proportion of adult ever-smokers (smoked at least 100 cigarettes in their lifetime) who did not smoke in the previous 12 months.

Numerator: The number of adult ever-smokers aged 18 or older who did not smoke in the previous 12 months.

Denominator: People aged 18 or older who have smoked at least 100 cigarettes in their lifetime.

Data source: National Drug Strategy Household Survey (NDSHS), 2010, 2013.

#### Results

The proportion of ever-smokers (smoked at least 100 cigarettes in their lifetime) aged 18 or older who had not smoked in the last 12 months increased significantly between 2010 and 2013—from 47% to 52%.

#### Age and sex

The increase in the proportion of ever-smokers no longer smoking was significant for both males and females aged 18 and older (up 5% and 14%, respectively), and for persons aged 25–44 (Figure 2.46 and Online Table 12.1). Considering sex and age combined, the increase was significant for females aged 25–44 and 55–64 (Online Table 12.1).



#### Indigenous status

There was a significant increase in the proportion of non-Indigenous ever-smokers who reported not smoking in the previous 12 months between 2010 and 2013 (Figure 2.47). However, the increase for Aboriginal and Torres Strait Islander (Indigenous) ever-smokers was not significant. Regardless, between 2010 and 2013, the gap between the two groups (while still large) lessened somewhat—in 2013 non-Indigenous ever-smokers were 2.2 times as likely to no longer smoke as Indigenous ever-smokers, compared with 2.4 times in 2010.

### Main language and country of birth

In 2013, adult ever-smokers who mainly spoke English at home were significantly more likely to report not smoking in the past 12 months than in 2010—an increase from 49% to 54% (Online Table 12.2). They were far more likely to report no longer smoking than adult ever-smokers who mainly spoke a language other than English at home (30% in 2013), with the gap in rates between the two groups widening—from 16.4% difference in 2010 to 24% in 2013.

The proportion of ever-smokers born in Australia who reported no longer smoking increased significantly between 2010 and 2013 (by 10%), with rates differing little between adults born in Australia and adults born overseas (in 2013 rates were 52% and 53%, respectively) (Online Table 12.2).

#### Employment status and education

There was a significant increase in this measure for adults who were employed or not in the labour force (with no change for those who were unemployed or looking for work) (Figure 2.47). Ever-smokers who were not in the labour force were by far the most likely to report no longer smoking—they were 2.5 times as likely to no longer smoke as adults who were unemployed/looking for work in 2013; similar to the finding of 2.4 times in 2010.

Only ever-smokers with an educational attainment of year 12 or year 9 and below reported a significant increase in the proportion of ever-smokers who quit in the previous twelve months—from 39% to 47% and 51% to 57%, respectively (Online Table 12.2).



### Household type

The proportion of ever-smokers no longer smoking increased significantly between 2010 and 2013 for adults living in single or couple households with dependent children, and couple households without children (Figure 2.47). The increase was greatest for households with single ever-smokers with dependent children (up 27%). In 2013, ever-smokers in couple households with dependent children were 1.5 times as likely to no longer smoke as single ever-smokers with dependent children—a decrease in the rate ratio of 1.7 times in 2010.



# Figure 2.47: Proportion of ever-smokers aged 18 or older who did not smoke in the previous 12 months, by Indigenous status, employment status and (selected) household type, 2010 and 2013

### Sexual orientation

Significantly more heterosexual ever-smokers were no longer smoking in 2013 (53% compared with 49% in 2010) (Online Table 12.2). There was also an increase in this measure for homosexual/bisexual ever-smokers (29% in 2013 compared with 23% in 2010), and while this increase was not significant, it resulted in a narrowing of the gap between the groups—in 2013, heterosexual ever-smokers were 1.9 times as likely to no longer smoke in the last 12 months, compared with 2.1 times in 2010.

#### Socioeconomic and remoteness areas

Ever-smokers living in the highest two socioeconomic areas were significantly more likely to have not smoked in the previous 12 months in 2013 than in 2010 (Figure 2.48). In both 2010 and 2013, as socioeconomic position increased, so did the proportion of ever-smokers who no longer smoked, with the gap between the lowest and highest areas remaining similar over this period—ever-smokers living in the highest socioeconomic areas were 1.5 times as likely to no longer smoke in 2013 than those living in the lowest areas (1.4 times as likely in 2010).

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Only ever-smokers living in *Major cities* reported an increase for this measure (up 13%, from 47% in 2010 to 53% in 2013) (Figure 2.48). While not significant, the increase in ever-smokers living in *Remote and very remote* areas reporting no longer smoking (up 25%) lessened the difference in rates across remoteness areas—in 2010, rates ranged from 36% in *Remote and very remote* areas to 50% in *Inner regional* areas and in 2013 they ranged from 45% in *Remote and very remote* areas to 53% in *Major cities* (a range of 8% compared with 14% in 2010).



Figure 2.48: Proportion of ever-smokers aged 18 or older who did not smoke in the previous 12 months, by socioeconomic area and remoteness area, 2010 and 2013



## **3 Smoking patterns across population groups**

This chapter presents a summary of the progress made between baseline and midpoint across the smoking phases for specific sub-population groups with a high prevalence of smoking. These groups include:

- Aboriginal and Torres Strait Islander people
- people living in the lowest socioeconomic areas
- people living in *Remote and very remote* areas
- single-parent households.

This chapter also reports on whether the difference in rates (the gap) between the at-risk groups and their most advantaged counterparts has widened, narrowed, or remained similar between baseline and midpoint. For example, a high-risk group may make substantial progress against the outcome indicators between baseline and midpoint, but may not improve at the same rate as their most advantaged counterparts, resulting in a widening of the gap over this period of time.

#### Box 3.1: Population groups making positive progress

Certain groups within the population made significant progress between the baseline and midpoint across numerous indicators, particularly among people living in *Inner regional* areas, students living in *Outer regional* areas and people living in the second-highest socioeconomic areas.

#### People living in Inner regional areas

Significant improvements were seen in the following indicators:

- Smoking during the first 20 weeks of pregnancy (declined from 18.8% to 17.0%).
- Exposing dependent children to daily smoking inside the home (significantly declined from 8.5% to 3.1%).
- Exposing non-smoking adults to daily smoking inside the home (significantly declined from 4.6% to 2.0%).
- Proportion of adults smoking a full cigarette (significantly declined from 67% to 61%).
- Proportion of young adults smoking at least 100 cigarettes (significantly declined from 34% to 26%).
- Proportion of adults smoking daily (significantly declined from 20% to 16.7%).

(continued)



### Box 3.1 (continued): Population groups making positive progress

#### People living in the second-highest socioeconomic areas

Significant improvements were reported among people living in the second-highest socioeconomic areas for the following indicators:

- Smoking during the first 20 weeks of pregnancy (declined from 8.8% to 6.9%).
- Exposing non-smoking adults to daily smoking inside the home (significantly declined from 2.9% to 1.5%).
- Average age at which 14–24 year olds first smoked a full cigarette (significantly increased from 15.4 years to 16.1 years).
- Proportion of secondary school students trying a few puffs of a cigarette (significantly declined from 24% to 18.3%).
- Proportion of adults smoking a full cigarette (significantly declined from 62% to 57%).
- Secondary school students smoking at least 100 cigarettes (significantly declined from 4.1% to 2.4%).
- Secondary school students smoking weekly and monthly (significantly declined from 6.6% to 4.9% and from 9.6% to 7.1 %, respectively).
- Proportion of adults smoking daily (significantly declined from 15.6% to 11.1%).
- Adult ever-smokers reporting that they had not smoked in the previous 12 months (significantly increased from 50% to 57%).

#### Students living in Outer regional areas

Considerable progress was made among secondary school students living in *Outer regional* areas with the indicators related to students improving by over 40% between baseline and midpoint. The following indicators significantly improved:

- Students smoking a few puffs of a cigarette (from 31% to 17.8%).
- Students smoking at least 100 cigarettes in their lifetime (from 4.7% to 2.5%).
- Smoked tobacco at least once in the previous week (from 9.8% to 4.8%).
- Smoked tobacco at least once in the previous month (from 13.2% to 6.8%).



#### Box 3.2: Rate ratio versus rate difference

There are two different measures to evaluate the gap between two population groups: the rate ratio and rate difference. Rate ratios are calculated by dividing the rate for the group of primary interest by the rate for the comparison group. Rate differences are calculated by subtracting the rate for the group of primary interest from the rate for the comparison group.

The rate difference measures the absolute 'gap' between two population groups to indicate the absolute size of the difference and the magnitude of the improvements required for the gap to close. The rate ratio measures the relative gap between the two population groups and can be dependant on changes in rates of the comparator group. When the rate for the primary group of interest is higher than that of the comparison group, any change in the comparison group rate must be matched by a proportionally larger change in the primary group's rate for the rate ratio to remain constant. The two measures provide different but complementary information. In this report, the rate ratio has been used as the main measure to analyse the gap between population groups. The rate difference, however, is useful for decision makers as it enables an appraisal of the magnitude of improvement required for the gap to close.

# Example of rate ratios and rate differences: the smoking gap among Indigenous and non-Indigenous people

The figure contained in this box illustrates the difference in rate ratios and rate differences. The figure shows that between baseline and midpoint, the daily smoking rate for Indigenous and non-Indigenous adults declined (3.3 percentage points and 2.8 percentage points respectively), but that the gap between the two groups remained similar or widened depending on which measure was used. The absolute difference was 29.1% at baseline and 28.6% at midpoint while the rate ratio showed that the relative inequality between the two groups increased (rate ratio increased from 2.6 to 2.8 between the baseline and midpoint). Rate ratios and rate differences may show different aspects of the observed change which can assist with the interpretation of whether a gap is widening or closing. It is therefore useful to consider both measures when examining the gap between two groups. The Chapter 3 online supplementary tables include the rate differences for each of the population groups examined in Chapter 3.



*Note:* Different data sources and collection years are presented in this figure. The timing of the data collections differs and results and comparisons between Indigenous and non-Indigenous people should be interpreted with caution. Data presented has not been age standardised and the differences reported are due to all causes including any differences in the age structure.

Sources: NHS 2007-08, 2011-12; NATSISS 2008; AATSIHS 2012-13.

## Adult daily smoking rate, rate ratio and rate differences for Indigenous and non-Indigenous people between baseline and midpoint



Factors influencing smoking behaviours among Aboriginal and Torres Strait Islander (Indigenous) people are complex and interrelated. As with other populations, some Indigneous people experience multiple levels of disadvantage, for example, low socioeconomic position, unemployment, low educational attainment and a single-parent household type.

There were significant declines in the proportion of Indigenous people smoking tobacco daily and being exposed to tobacco smoke between baseline and midpoint. However, they were generally more likely to be exposed to tobacco smoke, to have tried and transitioned to established smoking patterns and were less likely to succeed at quitting smoking than non-Indigenous people. Between baseline and midpoint, the difference in rates (the gap) among these groups narrowed for some indicators but widened for others. The gap widens despite the fact that Indigenous smoking rates are declining because the non-Indigenous rate is declining faster than the Indigenous rate. The gap closes when the Indigenous rate is declining faster than the set.

Smoking phase	Indicator	Per cent change (%) <sup>(a)</sup>	(baselin	Rate ratios e vs midpoint)
	Indicator 5.2—pregnancy (first 20 weeks)	↓5.3	↔	from 4.3 to 4.8
Exposure	Indicator 6—second-hand smoke (children)	<b>↓</b> 22.6	↔	from 3.6 to 4.6
	Indicator 7—second-hand smoke (adults)	<b>↓</b> 45.4	→←	from 3.3 to 3.1
	Indicator 9 —age of initiation (mean age)	ightarrow 0.5 years		n.a.
Uptake	Indicator 10—smoked a few puffs of a cigarette (school students)	<b>↓</b> 6.3	↔	from 1.6 to 1.9
	Indicator 10—smoked a full cigarette (adults)	<b>↓</b> 4.1		from 1.1 to 1.2
Transition	Indicator 2—smoked >100 cigarettes (school students)	↓10.6	↔	from 2.7 to 3.2
	Indicator 2—smoked >100 cigarettes (young adults)	<b>↓</b> 25.0	→←	from 1.9 to 1.7
	Indicator 1—regular (school students)	<b>↓</b> 9.0	⇐→	from 2.1 to 2.6
Established	Indicator 13—occasional (school students)	<b>↑</b> 9.8	←→	from 1.8 to 2.4
smoker	Indicator 14—occasional (adult smokers)	<b>↓</b> 48.8	←→	from 2.1 to 4.7
	Indicator 8i—regular (adults)	<b>↓</b> 6.9	←→	from 2.6 to 2.8
	Indicator 4—quit attempts	<b>↓</b> 4.4		from 1.2 to 1.1
Cessation	Indicator 11—age at cessation (mean age)	↑2.1 years		n.a.
	Indicator 12—no longer smokes	↓18.0	→←	from 2.4 to 2.2

# Table 3.1: Smoking phases, per cent change (Indigenous people) and rate ratios (Indigenous and non-Indigenous) between baseline and midpoint

← → The gap in rates between Indigenous and non-Indigenous has **widened** (by at least 0.2) between baseline and midpoint.

→ ← The gap in rates between Indigenous and non-Indigenous has **narrowed** (by at least 0.2) between baseline and midpoint.

The gap in rates between Indigenous and non-Indigenous has remained similar between baseline and midpoint.

Change is significant and favourable

Change is not significant

(a) Per cent change between baseline and midpoint data, varying years.

*Note:* Different data sources and collection years are presented in this table. Results and comparisons between indicators and between Aboriginal and Torres Strait Islander and non-Indigenous Australians should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007-08, 2011-12; NATSISS 2008; AATSIHS 2012-13; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013.



## Exposure

Fewer Indigenous people were exposed to tobacco smoke at the midpoint than at baseline, indicating positive progress for the outcome indicators in the exposure smoking phase (Figure 3.1). Between baseline and midpoint:

• declines were reported in the proportion of Indigenous mothers smoking while pregnant and a significantly lower proportion of Indigenous children and adults who lived with a smoker who smoked daily inside the home.

Between Indigenous and non-Indigenous people:

• the gap widened for women smoking during pregnancy and for dependent children exposed daily to tobacco smoke inside the home, but narrowed for non-smoking adults exposed to smoke inside the home (Table 3.1).

## Uptake

While results were not significant, progress against the uptake smoking phase indicators suggests a favourable trend for Indigenous secondary school students (aged 12–17) and adults trying cigarettes for the first time, but an unfavourable trend for the average age they first try smoking (Figure 3.1).

Between Indigenous and non-Indigenous people, the gap widened among secondary students smoking a few puffs of a cigarette but remained unchanged for adults smoking a full cigarette. The average age gap widened for 14–24 year olds smoking their first full cigarette—Indigenous people tried cigarettes a year earlier than their non-Indigenous counterparts (Table 3.1).



*Note*: Different data sources and collection years are presented in this figure. Results and comparisons between indicators and between Aboriginal and Torres Strait Islander and non-Indigenous Australians should be interpreted with caution. See the supplementary online tables for the data source and collection years for each indicator.

Sources: NHS 2007–08, 2011–12; NATSISS 2008; AATSIHS 2012–13; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013 (Online Table C3.1).

# Figure 3.1: Baseline and midpoint proportions for Indigenous people and rate ratios for Indigenous people compared with non-Indigenous people, exposure and uptake smoking phases

## Transition

Trends for the transition smoking phase indicator suggest positive progress for Indigenous secondary school students (aged 12–17) and young adults (aged 18–24) but the changes were not significant (Figure 3.2).

The gap between Indigenous and non-Indigenous people smoking at least 100 cigarettes in their lifetime narrowed for young adults, but increased for students (Table 3.1).

### **Established smoker**

Positive progress was made between baseline and midpoint against the established smoking indicators for Indigenous adults, with mixed results for secondary school students (Figure 3.2). Significantly fewer Indigenous adults smoked regularly at midpoint, but there were no significant changes among secondary students—positive progress for regular (weekly) smoking was indicated, but there was an unfavourable direction of change for occasional (monthly) smoking.

Between baseline and midpoint, the difference in rates (the gap) between Indigenous and non-Indigenous people increased for all established indicators, particularly among secondary students smoking weekly and monthly (Table 3.1).



*Note*: Different data sources and collection years are presented in this figure. Results and comparisons between indicators and between Aboriginal and Torres Strait Islander and non-Indigenous Australians should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: ASSAD 2011, 2014; NDSHS 2010, 2013; NATSISS 2008; AATSIHS 2012-13; NHS 2007-08, 2011-12 (Online Table C3.1).

Figure 3.2: Baseline and midpoint proportions for Indigenous people and rate ratios for Indigenous people compared with non-Indigenous people, transition and established smoker phases



## Cessation

Trend data for the cessation smoking phase suggest an unfavourable, but not significant, direction of trend for quit attempts and average age at cessation for Indigenous people, and positive, but not significant, progress for ever-smokers reporting they no longer smoked between baseline and midpoint (Figure 3.3).

There was little change in the gap between Indigenous and non-Indigenous smokers making quit attempts and ever-smokers reporting they no longer smoked (Table 3.1). But the gap in the average age at which ex-smokers quit smoking widened, with Indigenous ex-smokers moving from quitting at a younger average age than non-Indigenous ex-smokers, to an older average age, between baseline and midpoint.





## People living in the lowest socioeconomic areas

The Socio-Economic Indexes for Areas (SEIFA) is a measure that ranks areas in Australia according to relative socioeconomic disadvantage and advantage. The indexes are based on several measures, such as income and education.

As socioeconomic position decreased, the likelihood of being exposed to tobacco smoke increased. For the transition and established smoking phases, the difference in smoking rates among people living in the lowest and highest socioeconomic areas was more apparent for adults than it was for secondary students. Between baseline and midpoint, the gap between the lowest and highest socioeconomic areas generally widened or remained the same.

# Table 3.2: Smoking phases, per cent change (lowest socioeconomic areas) and rate ratios (lowestand highest socioeconomic areas) between baseline and midpoint

Smoking phase	Indicator	Per cent change (%) <sup>(a)</sup>	(baselin	Rate ratios e vs midpoint)
	Indicator 5.2—pregnancy (first 20 weeks)	<b>↓</b> 4.9	$\leftrightarrow$	from 4.3 to 5.3
Exposure	Indicator 6—second-hand smoke (children)	<b>↓</b> 41.9	→←	from 4.1 to 3.6
	Indicator 7—second-hand smoke (adults)	<b>↓</b> 35.9	→←	from 2.7 to 2.2
	Indicator 9 — age of initiation (mean age)	<b>1</b> 0.5 years		n.a.
Uptake	Indicator 10—smoked a few puffs of a cigarette (school students)	<b>↓</b> 14.7		from 1.3 to 1.2
	Indicator 10—smoked a full cigarette (adults)	<b>↓</b> 8.6		from 1.0 to 1.1
Transition	Indicator 2—smoked >100 cigarettes (school students)	↑ 22.6	$\leftrightarrow$	from 1.0 to 1.3
	Indicator 2—smoked >100 cigarettes (young adults)	↓16.6	←→	from 1.2 to 1.6
	Indicator 1—regular (school students)	↓12.9		from 1.2 to 1.1
Established	Indicator 13—occasional (school students)	<b>↓</b> 6.5		from 1.2 to 1.2
smoker	Indicator 14—occasional (adult smokers)	<b>↓</b> 23.4	←→	from 2.1 to 3.8
	Indicator 8ii—regular (adults)	<b>↓</b> 22.5	$\leftrightarrow$	from 2.5 to 2.8
	Indicator 4—quit attempts	↓2.9		from 1.1 to 1.0
Cessation	Indicator 11—age at cessation (mean age)	↑ 0.2 years		n.a
	Indicator 12—no longer smokes	<b>1</b> 6.0		from 1.4 to 1.5

← The gap in rates between those living in the lowest socioeconomic areas and those living in the highest socioeconomic areas has widened (by at least 0.2) between baseline and midpoint.

The gap in rates between those living in the lowest socioeconomic areas and those living in the highest socioeconomic areas has **narrowed** (by at least 0.2) between baseline and midpoint.

The gap in rates between those living in the lowest socioeconomic areas and those living in the highest socioeconomic areas has **remained similar** between baseline and midpoint.

Change is significant and favourable

Change is not significant

(a) Per cent change between baseline and midpoint data, varying years.

*Note:* Different data sources and collection years are presented in this table. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007–08, 2014–15; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013.



## Exposure

Positive progress was made among people living in the lowest socioeconomic areas, with fewer people being exposed to tobacco smoke at the midpoint than at baseline (Figure 3.4). Declines were reported in the proportion of women in low socioeconomic areas smoking while pregnant, and significantly lower proportions of children and adults living in these areas reported living with a smoker who smoked daily in the home.

The gap widened between people living in the lowest and highest socioeconomic areas for pregnant women smoking during pregnancy, but narrowed for dependent children and non-smoking adults living with a daily smoker who smoked inside the home (Table 3.2).

## Uptake

Positive progress was made between baseline and midpoint for indicators in the uptake smoking phase among people living in the lowest socioeconomic areas. Significant declines were reported in the proportion of secondary students and adults in low socioeconomic areas trying cigarettes. Further, while not significant, results indicate favourable trend in delaying the onset of tobacco smoking among young people.

The socioeconomic gradient is evident for smoking uptake. The average age that 14–24 year olds first smoked a full cigarette increased as socioeconomic position increased, and the likelihood of trying cigarettes decreased. Between baseline and midpoint, the gap between people living in the lowest and highest socioeconomic areas remained similar for all indicators in the uptake smoking phase (Figure 3.4).



*Note:* Different data sources and collection years are presented in this figure. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013 (Online Table C3.2).

Figure 3.4: Baseline and midpoint proportions for people in the lowest socioeconomic areas and rate ratios for people in the lowest compared with people in the highest socioeconomic areas, exposure and uptake smoking phases

# NO)

## Transition

The transition smoking phase indicators suggest a favourable trend for young adults (aged 18–24) living in the lowest socioeconomic area, but an unfavourable trend for secondary school students (aged 12–17) (Figure 3.5). Students living in the lowest socioeconomic areas were more likely to have transitioned to established patterns of smoking (smoked 100 cigarettes in their lifetime) at midpoint than at baseline, and were more likely to have transitioned than students living in all other socioeconomic areas. The gap between people in the lowest and highest socioeconomic areas widened for both secondary students and young adults smoking at least 100 cigarettes in their lifetime (Table 3.2).

## **Established smoker**

Positive progress was made among people living in the lowest socioeconomic areas, with fewer people reporting established patterns of smoking at the midpoint than at baseline (Figure 3.5). There was a significant decline in the rate of daily smoking, and, while the results were not significant, there were reductions in secondary school students smoking regularly and occasionally and adults smoking occasionally in the lowest socioeconomic areas.

Between the highest and lowest socioeconomic areas:

• there was little change in the gap among secondary students smoking regularly or occasionally and the proportions were similar for the two groups



• the gap widened for adults smoking occasionally and regularly between the baseline and midpoint.

Note: Different data sources and collection years are presented in this figure. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; ASSAD 2011, 2014 (Online Table C3.2).

Figure 3.5: Baseline and midpoint proportions for people in the lowest socioeconomic areas and rate ratios for people in the lowest compared with people in the highest socioeconomic areas, transition and established smoker smoking phases



## Cessation

The trends for cessation are less clear for people in low socioeconomic areas. There were no real changes between baseline and midpoint for quit attempts, the proportion of ever-smokers no longer smoking or average age at cessation, with very little change to the rate ratio gap among those living in the lowest and highest socioeconomic areas over this period (Figure 3.6).



rate ratios for people in the lowest compared with people in the highest socioeconomic areas, cessation smoking phase



## People living in Remote and very remote areas

Outcomes for people living in different remoteness areas are affected by the population structure of each area. While the majority of Indigenous people live in *Major cities*, a relatively high proportion live in *Remote and very remote* areas (ABS 2007). Therefore, the outcomes of people living in these areas will reflect the higher proportion of Indigenous people living in these areas.

Table 3.3: Smoking phases, per cent change (*Remote and very remote* areas) and rate ratios (*Remote and very remote* and *Major cities*) between baseline and midpoint

Smoking phase	Indicator	Per cent change (%) <sup>(a)</sup>	(baselir	Rate ratios ne vs midpoint)
	Indicator 5.2—pregnancy (first 20 weeks)	<b>↓</b> 6.5	←→	from 2.9 to 3.2
Exposure	Indicator 6—second-hand smoke (children)	<b>↓</b> 1.1	←→	from 1.8 to 2.6
	Indicator 7—second-hand smoke (adults)	<b>↓</b> 60.3	→←	from 2.0 to 1.2
	Indicator 9—age of initiation (mean age)	↑0.2 years		n.a.
Uptake	Indicator 10—smoked a few puffs of a cigarette (school students)	<b>↑</b> 31.0	↔	from 1.0 to 1.6
	Indicator 10—smoked a full cigarette (adults)	<b>↓</b> 3.7		from 1.2 to 1.2
Transition	Indicator 2—smoked >100 cigarettes (school students)	<b>↑</b> 8.8	↔	from 1.0 to 1.5
Transition	Indicator 2—smoked >100 cigarettes (young adults)	<b>个</b> 8.1	↔	from 1.5 to 2.2
E. C. L.P. L. J.	Indicator 1—regular (school students)	<b>1</b> 40.0	←→	from 0.8 to 1.4
smoker	Indicator 13—occasional (school students)	↑ 55.2	←→	from 0.8 to 1.5
Sinokei	Indicator 3—regular (adults)	<b>↓</b> 31.9	→←	from 1.6 to 1.4
	Indicator 4—quit attempts	<b>个</b> 5.1		from 1.0 to 1.0
Cessation	Indicator 11—age at cessation (mean age)	↑ 1.1 years		n.a.
	Indicator 12—no longer smokes	↑ 25.3		from 1.3 to 1.2
$\leftarrow \rightarrow$ The gap in ra	ates between people living in <i>Remote and verv remote</i> areas and those	e in <i>Major cities</i> has <b>wi</b>	<b>dened</b> (by at least	0.2) between baseline

The gap in rates between people living in *Remote and very remote* areas and those in *Major cities* has **widened** (by at least 0.2) between baseline and midpoint.

→ ← The gap in rates between people living in *Remote and very remote* areas and those in *Major cities* has **narrowed** (by at least 0.2) between baseline and midpoint.

The gap in rates between people living in *Remote and very remote* areas and those in *Major cities* has **remained similar** between baseline and midpoint.

Change is significant and favourable

Change is not significant

Change is significant and unfavourable

(a) Per cent change between baseline and midpoint data, varying years.

Notes

1. Different data sources and collection years are presented in this table. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

2. Data for Indicator 14—occasional smokers at midpoint n.p.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013.



## Exposure

Positive progress was made among people living in *Remote and very remote* areas, with fewer people being exposed to tobacco smoke at the midpoint than at baseline (Figure 3.7). Declines were reported in the proportion of women in *Remote and very remote* areas smoking while pregnant, and a significantly lower proportion of adults lived with a smoker who smoked daily in the home. There was no change in the proportion of dependent children being exposed to a daily smoker who smoked inside the home, resulting in a widening of the gap for that indicator between *Remote and very remote* areas and *Major cities*, but the exposure gap narrowed for non-smoking adults (Indicator 7).

## Uptake

Trend data for the outcome indicators in the uptake smoking phase indicate little or unfavourable progress for people living in *Remote and very remote* areas (Figure 3.7). A significantly greater proportion of secondary school students aged 12–17 living in *Remote and very remote* areas tried cigarettes at midpoint than at baseline. There was little change in the proportion of adults trying cigarettes and the average age at which 14–24 year olds first smoked.

Between baseline and midpoint, the gap between people living in *Remote and very remote* areas and *Major cities* remained similar for adults trying cigarettes, but widened for secondary school students. There was also a widening of the gap among 14–24 year olds for the age at which they smoke their first full cigarette.



*Note:* Different data sources and collection years are presented in this figure. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013 (Online Table C3.3).

Figure 3.7: Baseline and midpoint proportions for people in Remote and very remote areas and rate ratios for people in Remote and very remote areas compared with people in Major cities, exposure and uptake smoking phases



## Transition

Indicators in the transition smoking phase indicate an unfavourable trend for young adults (aged 18–24) and secondary school students (aged 12–17) for people living in *Remote and very remote* areas, with both groups reporting a non-significant increase in the proportion smoking more than 100 cigarettes in their lifetime (Figure 3.8).

Students and young adults living in *Remote and very remote* areas were more likely to have transitioned to established patterns of smoking than those in *Major cities*, and the gap widened for both these groups between baseline and midpoint.

## **Established smoker**

The trends for indicators in the established smoker phase for people living in *Remote and very remote* areas indicate positive progress for adults, but an unfavourable trend for secondary school students (Figure 3.8). While fewer adults living in *Remote and very remote* areas smoked regularly at midpoint than at baseline, a greater proportion of secondary school students smoked regularly (weekly) or occasionally (monthly). This resulted in a narrowing of the gap for adults but a widening of the gap for secondary students when compared to their *Major city* counterparts (Table 3.3).



Notes

1. Different data sources and collection years are presented in this figure. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

2. Indicator 3 includes data for Remote areas only; excludes Very remote areas of Australia.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; ASSAD 2011, 2014 (Online Table C3.3).

Figure 3.8: Baseline and midpoint proportions for people in Remote and very remote areas and rate ratios for people in Remote and very remote areas compared with people in Major cities, transition and established smoker phases



## Cessation

The trends for cessation are less clear for people in *Remote and very remote* areas. There were no real changes between baseline and midpoint for quit attempts or average age at cessation. There appeared to be a positive trend in the proportion of ever-smokers quitting for 12 months or more (increase of 25% since baseline), but the increase was not significant (Figure 3.9).

There was little change in the gap among smokers making quit attempts and ever-smokers reporting they no longer smoked between those living in *Remote and very remote* areas or *Major cities* (Table 3.3). But for the average age at which ex-smokers quit smoking, the gap widened.

Ex-smokers living in *Remote and very remote areas* moved from quitting at the same average age as ex-smokers in *Major cities* to an older average age between baseline and midpoint.



Sources: NDSHS 2010, 2013 (Online Table C3.3).

Figure 3.9: Baseline and midpoint proportions for people in Remote and very remote areas and rate ratios for people in Remote and very remote areas compared with people in Major cities, cessation smoking phase

## Single-parent households

A person's relationship status appears to have some impact on exposing others to smoking, being a regular adult smoker and whether they have given up smoking.

Smoking phase	Indicator	Per cent change (%) <sup>(a)</sup>	Rate ratios (baseline vs midpoint) <sup>(c)</sup>
	Indicator 5.2—pregnancy (first 20 weeks) <sup>(b)</sup>	<b>↓</b> 7.9	←→ from 3.7 to 4.0
Exposure	Indicator 6—second-hand smoke (children)	<b>↓</b> 53.4	→ ← from 3.9 to 3.2
	Indicator 7—second-hand smoke (adults)	<b>↓</b> 43.3	←→ from 1.5 to 1.7
Untako	Indicator 9—age of initiation (mean age)	↑0.1 years	n.a.
οριακε	Indicator 10—smoked a full cigarette (adults)	<b>↓</b> 1.6	—— from 1.1 to 1.2
Established	Indicator 14—occasional (adult smokers)	₩32.0	<b>←→</b> from 1.4 to 2.4
smoker	Indicator 3—regular (adults)	<b>↓</b> 22.4	←→ from 2.1 to 2.5
	Indicator 4—quit attempts	<b>↑</b> 6.4	from 0.9 to 0.9
Cessation	Indicator 11—age at cessation (mean age)	↑0.3 years	n.a.
	Indicator 12—no longer smokes	↑ 26.6	→← from 1.7 to 1.5

# Table 3.4: Smoking phases, per cent change (single-parent households) and rate ratios (single-parent households and couple parent households) between baseline and midpoint

←→ The gap in rates between single-parent households and couple parent households has **widened** (by at least 0.2) between baseline and midpoint.

The gap in rates between single-parent households and couple parent households has **narrowed** (by at least 0.2) between baseline and midpoint.

The gap in rates between single-parent households and couple parent households has remained similar between baseline and midpoint.

Change is significant and favourable

Change is not significant

(a) Per cent change between baseline and midpoint data, varying years.

(b) Marital status of mother is used as a proxy for household structure. Couple parent households include mothers with marital status of married (including de facto) and single-parent households include mothers with marital status of never married, divorced, widowed or separated. Data exclude births occurring in Western Australia.

(c) Rate ratio: married (inc. de facto)/never married, divorced, widow or separated for Indicator 5.2.

*Note:* Different data sources and collection years are presented in this table. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; 2014; NPDC 2011, 2013.

## Exposure

Positive progress was made among people living in single-parent households with dependent children, with fewer people being exposed to tobacco smoke at the midpoint than at baseline (Figure 3.10). A lower proportion of single women reported smoking while pregnant and the proportion of single-parent households exposing dependent children to smoking inside the home daily significantly declined. The trend in the proportion of non-smoking single parents aged 18 or older exposed to tobacco smoke in the home was also favourable, but the decline was not significant.

People in single-parent households with dependent children were more likely to be exposed to tobacco smoke than people in couple households with dependent children; the gap between the two groups increased for non-smoking adults and decreased for dependent children. The gap increased among single women smoking during pregnancy and pregnant women in a married or de facto relationship.



## Uptake

There was little change between baseline and midpoint data for the uptake smoking phase indicators for people living in single-parent households; however, while not significant, the direction of change was favourable (Figure 3.10).

There was little difference between single-parent and couple households in the average age at which people aged 14–24 smoked their first cigarette; the gap between the two groups remained similar at baseline and midpoint.



Note: Different data sources and collection years are presented in this figure. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013 (Online Table C3.4).

Figure 3.10: Baseline and midpoint proportions for single-parent households with dependent children and rate ratios for single-parent households with dependent children compared with couples with dependent children, exposure and uptake smoking phases

## **Established smoker**

Positive progress was made among single parents with dependent children, with a significantly lower proportion reporting they smoked daily at midpoint than at baseline (Figure 3.11). There was also a decline in the proportion of single-parent smokers smoking occasionally.

Over the baseline and midpoint period there was a widening of the gap in the established smoking rates between single parents with dependent children and couples with dependent children.

## Cessation

There has been positive progress made for smoking cessation among single parents with dependent children, with a significantly higher proportion of adult ever-smokers no longer smoking at midpoint (Figure 3.11). Results indicate a favourable, but not significant trend for single-parent smokers attempting to quit, but an unfavourable trend for average age at cessation.

Between baseline and midpoint, the gap between single and couple parents with dependent children remained similar for the proportion making quit attempts and the average age they quit smoking. Positively, the gap narrowed for ever-smokers quitting for at least 12 months.



*Note:* Different data sources and collection years are presented in this figure. Results and comparisons should be interpreted with caution. See the online supplementary tables for the data source and collection years for each indicator.

Sources: NHS 2007-08, 2014-15; NDSHS 2010, 2013; ASSAD 2011, 2014; NPDC 2011, 2013 (Online Table C3.4).

Figure 3.11: Baseline and midpoint proportions for single parents with dependent children and rate ratios for single parents with dependent children compared with couples with dependent children, established smokers and cessation phases

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Children   Children <t< th=""><th>Proposed disagg</th><th>Jregations</th><th>Pregnancy</th><th>smoke</th><th>initiation</th><th>cigarette</th><th>cigarettes</th><th>Occasional<sup>(a)</sup></th><th>Regular<sup>(b)</sup></th><th>Attempts</th><th>cessation</th><th>smokes</th></t<>	Proposed disagg	Jregations	Pregnancy	smoke	initiation	cigarette	cigarettes	Occasional <sup>(a)</sup>	Regular <sup>(b)</sup>	Attempts	cessation	smokes
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Eduction	Relationships	Peers, parents or siblings smoke										
Soldecondic status     Soldeco		Education										
Health/scale     Employment     Employment     Employment     Imployment     Implo		Socioeconomic status							8ii			
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Main language   Main language<	Health/social determinant	Income										
Country of birth   Country of birth <td< th=""><th></th><td>Main language</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		Main language										
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At-risk groups   Living with mental illness   Image: Single with mental with mental illness   Image: Single with mental with with mental with mental with mental with with mental wi		Prisoners										
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Lesbian gay bisexual transgender and intersex   Lesbian gay bisexual transgender and intersex   Image and intersex		Substance use disorder										
Homeless Additional indicator Disaggregation included Analysis was not supported or was low priority		Lesbian gay bisexual transgender and intersex										
Indicator specified in NTS Additional indicator Disaggregation included Analysis was not supported or was low priority		Homeless										
	Indicator speci	ified in NTS	dditional indicator		Disaggregation	included		Analysis was not su	upported or was	s low priority		

(a) Occasional smoking is defined as at least monthly for young people and weekly or less than weekly for adults.
(b) Regular smoking is defined as at least weekly for young people and daily for adults.

Note: The numbers in the table refer to the indicator number.

**Appendix A: Conceptual framework** 



# Glossary

**Australian Standard Geographical Classification (ASGC), remoteness areas:** The ABS Australian Standard Geographical Classification for remoteness areas allocates 1 of 5 remoteness categories to areas, depending on their distance from 5 types of population centres. These classifications reflect the level of remoteness at the time of the 2006 Census.

Areas are classified as:

- Major cities
- Inner regional
- Outer regional
- Remote
- Very remote

The NDSHS and NPDC collections group *Remote and very remote* together, whereas data from the NHS excludes *Very remote* areas.

**Australian Statistical Geographic Standard, remoteness areas:** The ABS Australian Statistical Geographic Standard (ASGS) remoteness areas classification allocates 1 of 5 remoteness categories to areas, depending on their distance from 5 types of population centres. These classifications reflect the level of remoteness at the time of the 2011 Census.

Areas are classified as

- Major cities
- Inner regional
- Outer regional
- Remote
- Very remote

Data from the ASSAD collection groups Remote and very remote areas together.

**Socioeconomic position and the Index of Relative Socio-Economic Advantage and Disadvantage:** The Index of Relative Socio-Economic Advantage and Disadvantage is 1 of 4 Socio-Economic Indexes for Areas (SEIFA) compiled by the ABS after each Census of Population and Housing. The SEIFA aims to represent the socioeconomic position of Australian communities, and to pinpoint areas of advantage and disadvantage. SEIFA 'fifths' and 'tenths' are both used in this report.

- **Fifths** divide a distribution into 5 equal groups. The population living in the first fifth (20% of areas with the greatest overall level of disadvantage) is described as living in the 'lowest socioeconomic area'. The 20% living in the top fifth is described as living in the 'highest socioeconomic area'.
- Tenths divide a distribution into 10 equal groups. In the case of SEIFA, the population living in the first tenth (10% of areas with the greatest overall level of disadvantage) is described as living in the 'lowest socioeconomic area'. The 10% at the other end of the scale—the top tenth—is described as living in the 'highest socioeconomic area'.



**daily smoker:** A person who smokes 1 or more cigarettes, roll your-own cigarettes, cigars or pipes at least once a day (excluding chewing tobacco and smoking of non-tobacco products).

ever-smoker: A person who has smoked at least 100 cigarettes in their lifetime.

**ex-smoker:** A person who has smoked at least 100 cigarettes in their lifetime and has not smoked in the previous 12 months.

**never-smoker:** A person who does not smoke now, and has smoked fewer than 100 cigarettes or the equivalent tobacco product in his or her lifetime.

non-smoker: A person who is a never-smoker or an ex-smoker.

**not in the labour force:** A person who is neither employed nor unemployed in a particular reference period. Includes people who are unable to work and students studying full time who are not currently working.

occasional smoking—adults: The smoking of 1 or more cigarettes, roll your-own cigarettes, cigars or pipe, weekly or less than weekly (excluding chewing tobacco and smoking of non-tobacco products).

occasional smoking—young people: The smoking of tobacco (cigarettes only) at least 1 day per month.

**prison entrant:** People aged 18 or older entering prison. For this report, prison entrants refer to prisoners aged 18 or older who entered custody during the 2010 National Prisoner Health Census period.

regular smoking—adults: See daily smoker.

**regular smoking—prison entrants:** An adult who reported at the time of the interview that he or she regularly smoked 1 or more cigarettes, cigars or pipes every day or most days.

regular smoking—young people: The smoking of tobacco (cigarettes only) at least 1 day per week.

**second-hand smoke** (also called environmental smoke): The exposure to tobacco smoke, or the chemicals in tobacco smoke, without actually smoking.

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## **Related publications**

This report, *Tobacco Indicators: Measuring mid point progress*, builds on the *Tobacco data reporting under the National Tobacco Strategy 2012–2018: Tobacco indicators: baseline report*, completed in 2015, which presented baseline data for these outcome indicators. The earlier editions and related materials can be downloaded for free from the AIHW website <a href="http://www.aihw.gov.au/publication-detail/?id=60129552715&tab=2">http://www.aihw.gov.au/publication-detail/?id=60129552715&tab=2</a>. The website also includes information on ordering printed copies.

This report presents midpoint data for several tobacco indicators using various data sources and collections years. The majority of indicators show that favourable progress has been made, particularly for exposure to tobacco smoke, uptake of smoking, transition to established smoking and regular smoking among young people, adults and Aboriginal and Torres Strait Islander people. However, some groups achieved greater progress than others, and inequalities within particular groups increased for some indicators.

