



HEALTH GAINS PLANNING – FACT SHEET

SMOKING PREVALENCE, NORTHERN TERRITORY – 1994 TO 2013

Introduction

Tobacco smoking is the single most preventable cause of ill health and death in Australia.¹ It has been estimated to be responsible for 9.6% and 5.8% of the total burden of disease and injury among Australian males and females respectively.¹ Studies in the Northern Territory (NT) estimate tobacco smoking to be responsible for 8.1% of the total NT burden of disease and injury and 4% of all hospitalisations.^{2,3} The total cost of smoking related harm in the NT was estimated to have been \$764 million in 2005/06, \$5,150 per person aged over 14 years.⁴

This fact sheet provides a summary of trends in smoking prevalence in the NT and importantly provides estimates of the smoking prevalence of the total NT population which is not available from any single survey.

Survey methods – a caution

Between 1986 and 2013, 17 major surveys reported smoking prevalence in the NT (see Table 1 for surveys from 1994 onwards). Differences in survey methods mean that caution is required when comparing results between surveys. The differences include:

- A number of surveys included household telephone interviews. This method is not suitable for the NT Indigenous population, as a majority of Indigenous households in remote areas do not have a telephone. Examples are the 2007 and 2010 National Drug Strategy Household Surveys (NDSHS).^{5a-5c}
- Some surveys use door-to-door household interviews but, for costing reasons, restrict the sample to major centres with the result that remote households are under-represented. Examples are the 2004/05^{6a} and 2007/08^{6b} National Health Surveys.
- Some surveys, such as the Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012-13,⁷ only sample the Indigenous population.

- Some national surveys, including the National Health Surveys (2004/05 and 2007/08),^{6a-6b} have an NT sample which is too small to provide accurate NT estimates.
- The age for inclusion varies between surveys. Various surveys have reported results for the population aged from 13 years, 14 years or 15 years and from 18 years and over. These differences are included in the notes for Table 1.
- The definition of “current smoker” varies between surveys. Some surveys have reported current “daily” smokers, while others include the small proportion of weekly and occasional smokers
- Smoking prevalence varies with age and gender. Accurate comparisons between two populations with different age structures require an adjustment for the differences in the structure of the underlying populations.

Smoking prevalence

The most recent NT smoking prevalence can be estimated by combining two national surveys. The Australian Health Survey 2011-12 was designed as a national household survey but the NT sample contained a small, unrepresentative proportion of NT Indigenous people.⁹ The survey data can be adjusted to provide an accurate estimate for the non-Indigenous NT population. By contrast, the Australian Aboriginal and Torres Strait Islander Health Survey 2012-13 only sampled the Indigenous population.⁷ These two surveys included similar questions on smoking, so that prevalence estimates for “current smoking” can be calculated using combined responses for smoking daily, weekly or occasionally. From this combination the smoking prevalence among the NT population aged 18 years and over was 32.3% (Table 2).

For the **NT non-Indigenous population** aged 18 years and over;

- In 2011-12, it was estimated that 27,310 (24.1%) non-Indigenous adults aged 18 years and over were current smokers (Table 2).

Table 1: Smoking prevalence surveys, Northern Territory and Australia, 1994 - 2013

Smoking prevalence surveys		Northern Territory				Australia	
		Non-Indigenous		Indigenous		Male	Female
		Male	Female	Male	Female		
National Aboriginal and Torres Strait Islanders Survey: Indigenous people living in NT ^a	1994			59.4	35.5	53.6	45.8
National Drug Strategy Household Survey ^b	1998	32.8	39.3			29.4	23.9
Northern Territory Health and Wellbeing Survey: Non-Indigenous people living in NT ^c	2000	31.8	26.3				
National Drug Strategy Household Survey ^d	2001	32.0	30.4			25.7	20.8
National Aboriginal and Torres Strait Islanders Social Survey: Indigenous people living in NT ^e	2002			57.8	44.1	50.5	46.9
Northern Territory Health and Wellbeing - SNAP Survey: Non-Indigenous people in NT ^f	2004	27.1	25.8				
National Drug Strategy Household Survey ^g	2004	32.7	29.0			22.5	18.8
National Health Survey ^h	2004/05					26.2	20.4
National Aboriginal and Torres Strait Islanders Health Survey ⁱ	2004/05			64.9	47.8	53.4	50.9
National Drug Strategy Household Survey ^j	2007	31.4	24.9			22.0	17.9
National Aboriginal and Torres Strait Islanders Social Survey, 2008 ^k	2008			57.3	48.6	48.8	44.9
National Health Survey ^l	2007/08					22.2	18.0
National Drug Strategy Household Survey ^m	2010	32.9	17.9			21.0	16.9
Australian Health Survey ⁿ	2011/12	27.6	20.4			20.3	15.7
Australian Aboriginal and Torres Strait Islanders Health Survey ^o	2012/13			65.5	46.9		

Notes: a. National Aboriginal and Torres Strait Islanders Survey (NATSIS) 1994, Northern Territory. ABS. Cat.No.4190.7. This was a comprehensive national survey of Aboriginal and Torres Strait Islander people, and reported current daily smokers aged 13 years and over.
 b, d, g, j & m. National Drug Strategy Household Survey (NDSHS). AIHW Cat.No.PHE26, PHE37, PHE66 and PHE102. An ongoing series conducted by the Australian Institute of Health and Welfare (AIHW) in 1998, 2001, 2004, 2007 & 2010. For the 1998, 2001 and 2004 surveys, estimates were for persons aged 14 years and over. For the years 2007 and 2010, the estimates were for persons aged 18 years and over. While the results were reported as NT estimates, the samples included only small proportions of NT Indigenous persons and are presented here as non-Indigenous estimates.
 c. Northern Territory Health and Wellbeing Survey, 2000. Department of Health and Community Services. A telephone survey with results reported for the NT non-Indigenous population aged 18 years and over.
 e & k. National Aboriginal and Torres Strait Islanders Social Survey (NATSISS), 2002, ABS. Cat.No.4159.7 and NATSISS 2008, ABS. Cat. No.4714.0. The reported prevalence of current daily smokers in both surveys is for the population aged 15 years and over.
 f. Northern Territory Health and Wellbeing - SNAP Survey, 2004. An AIHW telephone survey for persons aged 18 years and over.
 h & i. National Health Survey 2004/05 and 2007/08: Summary Results, ABS Cat.No.4364.0. Smoking estimates were reported for adults 18 years and over. The NT sample is inadequate for NT estimates.
 i. National Aboriginal and Torres Strait Islanders Health Survey (NATSIHS). ABS Cat.No.4714.7.55.001 and 4715.0.55.005. The survey reported smoking prevalence for the Indigenous population aged 18 years and over.
 n. Australian Health Survey (AHS) 2011/12, Updated Results. ABS. Cat. No.4364.0. The survey reported smoking prevalence for the non-Indigenous population aged 18 years and over (published and unpublished data).
 o. Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012-2013. First Results, 2012-2013 Australia. ABS Cat.No.4727.0. The survey reported smoking prevalence for the Indigenous population aged 18 years and over (published and customised reports).

- There was a difference in smoking prevalence between males (27.6%) and females (20.4%) (Table 2).
- The proportion of smokers varied with age (Figure 1). For men the peak prevalence (36.8%) was in the 25 to 34 years age group. For women the highest prevalence (26.2%) was in the group aged from 45 to 54 years.

- The highest prevalence of smoking among Indigenous men was in the age group 25 to 34 years (79.3%) and among Indigenous women in the 18 to 24 years age group (56.6%) (Figure 1).

Table 2: Crude prevalence (%) of smoking^a aged 18 years and over by sex and Indigenous status – Northern Territory, 2011/2013

Indigenous status	Male	Female	Person
NT Indigenous	65.5	46.9	56.0
NT non-Indigenous	27.6	20.4	24.1
NT total	37.0	27.4	32.3

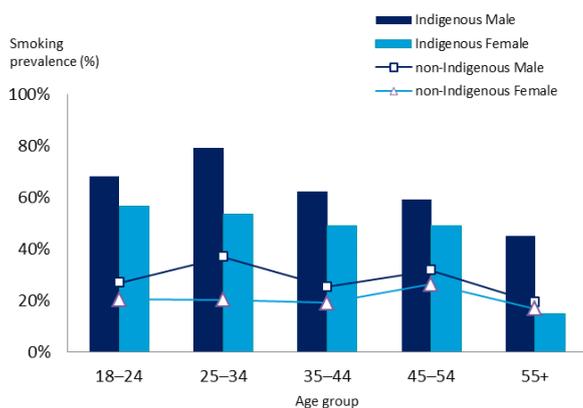
Source: AHS 2011-12 (unpublished data) and AATSIHS 2012-13 (customised report).

Note: a. Includes current daily smoker, current smoker weekly (at least once a week, but not daily) and current smoker less than weekly.

For the **NT Indigenous population** aged 18 years and above;

- In 2012-13, it was estimated nearly 22,088 (56.0%) Indigenous adults were current smokers (Table 2).
- Among Indigenous adults, around 2 in 3 males (65.5%) and 1 in 2 females (46.9%) were current smokers (Table 2).

Figure 1: Age-specific smoking prevalence by Indigenous status – Northern Territory, 2011/2013

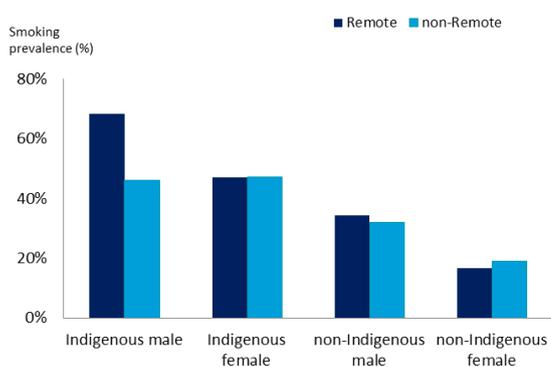


Source: AHS 2011/12 (unpublished data) and AATSIHS 2012/13 (customised reports). Note smoking prevalence for non-Indigenous age groups 18-24, and 55+ for males and females, and 35-44 for females only are subject to RSEs of between 25% and 50% and should be used with caution.

Remote and non-remote residents

Smoking prevalence varied between remote and non-remote areas. In remote areas, the proportion of smokers (42.6%) was much higher than in non-remote areas (27.6%) with Indigenous males responsible for most of this difference. Nearly 7 in 10 (68.4%) Indigenous men, living in remote areas, were current smokers compared with 5 in 10 (49%) living in non-remote areas.

Figure 2: Smoking prevalence by remoteness and Indigenous status – Northern Territory, 2011/2013



Source: NDSHS 2010 (unpublished data) and AATSIHS 2012-13 (customised report).

Age-adjusted smoking prevalence

Comparison of smoking prevalence between populations requires adjustment of the raw or 'crude' rates to allow for differences in age structure between populations. Direct age adjusted smoking prevalence rates, adjusted to the 2001 standard population,¹¹ for NT and Australia are presented in Table 3.

- After age-adjustment, the most recent smoking prevalence for the total NT population was 30.8% or 1.7 times the comparable Australian prevalence of 18.2%.
- The NT Indigenous smoking prevalence was 50.3%, 2.1 times higher than the NT non-Indigenous smoking rates (23.6%) and 2.8 times the Australian rate.
- Between 2004/05 and 2011/12, the age-adjusted smoking prevalence among NT adults fell from 35.3% to 30.8%. There were greater declines among non-Indigenous adults (from 30.2% to 23.6%) than Indigenous adults (from 52.4% to 50.3%). The smoking prevalence declined by 1.4% for NT Indigenous males, and by 3.2% for Indigenous females. By contrast, smoking prevalence for non-Indigenous males declined by 4.7% and for females by 9.3%.

Table 3: Age-adjusted smoking prevalence by sex and Indigenous status, Northern Territory and Australia: 2004/05, 2007/2008 and 2011/2013.

Indigenous status	Male	Female	Person
2004/05			
NT Indigenous	62.1	44.0	52.4
NT non-Indigenous	31.8	29.3	30.2
Northern Territory	37.6	33.4	35.3
Australia	24.1	20.0	22.0
2007/08			
NT Indigenous	54.6	45.5	49.8
NT non-Indigenous	30.5	24.5	27.8
Northern Territory	36.0	30.3	33.4
Australia	22.9	19.0	21.0
2011/13			
NT Indigenous	60.7	40.8	50.3
NT non-Indigenous	27.1	20.0	23.6
Northern Territory	35.5	26.2	30.8
Australia	20.3	16.0	18.2

Source: NATSIHS, 2004/05 ABS Cat. No. 4715.0.55.001 and 4715.7.55.005; 2004 NDSHS (unpublished data) and NHS, 2004/05 ABS Cat no.4364.0; NDSHS 2007, (unpublished data) and NATSIHS, 2008 (unpublished data).^{3b} AHS 2011/12 (unpublished data) and AATSIHS 2012/13 (customised report).
 Note: Age-adjusted prevalence estimates are calculated using data obtained from different survey sources which are subject to variation due to differences in data collection, methodology and response rates. Non-Indigenous data for some age groups are subject to RSEs of between 25% and 50% and should be used with caution.

Trends in smoking prevalence

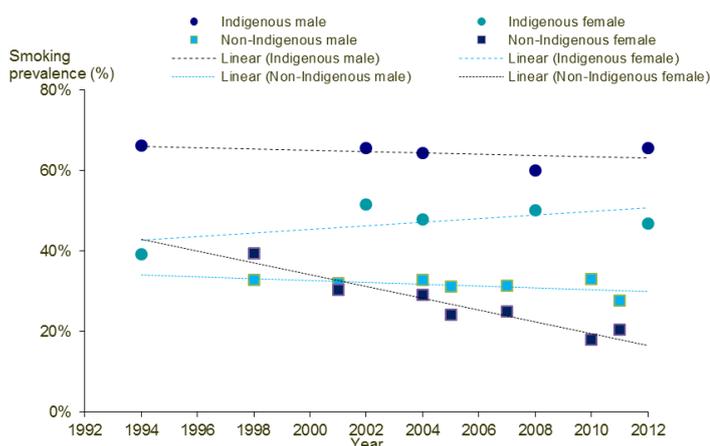
Since the early 1980s, there has been a general decline in smoking prevalence in Australia. This decline has occurred among both males and females and in all age and occupation groups.¹² Differences in the design of the many NT surveys limits a detailed analysis of NT smoking prevalence trends, however within these limitations, it is useful to make general observations.

- Between 1977 and 1994 there was a general fall in smoking prevalence in the largely non-

Indigenous NT urban population, which was consistent with the national decline.¹³

- In more recent years, NT non-Indigenous smoking rates continued to fall, particularly among females. However, these decreases have lagged behind national changes (Table 1 & Figure 3).
- By contrast, over the period from 1994 to 2012/2013 smoking prevalence among NT Indigenous males aged 18 and over remained above 60% with little overall change. Smoking prevalence among NT Indigenous females aged 18 and over climbed from 39.1% in 1994 to 50.2% in 2008. The 2012 estimate of 46.9% suggests that prevalence among Indigenous women may now be declining (Table 1 & Figure 3).

Figure 3: Prevalence of smoking among the Indigenous and non-Indigenous population by sex, Northern Territory, 1992 – 2012



Sources for Indigenous estimates: Thomas, D. 2012. National trends in Aboriginal and Torres Strait Islander smoking and quitting, 1994-2008. *Aust NZ J Public Health*; 36(1):24-9, Thomas, D., 2009 Smoking prevalence trends in Indigenous Australians, 1994-2004: a typical rather than an exceptional epidemic. *International Journal for Equity in Health*, 8:37. NATSISS 1994 (ABS. Cat.No.4190.7), NATSISS, 2002 (ABS. Cat No.4159.7), NATSIHS 2004/05 (ABS. Cat.No.4714.7.55.001) and NATSISS, 2008. AATSIHS 2012/13 (ABS Cat. No. 4727.0 and customised report). Note: All estimates were for persons aged 18 years and over.

Sources for non-Indigenous estimates: National Drug Strategy Household Survey (NDSHS). AIHW Cat.No.PHE26, PHE37, PHE66 and PHE102. An ongoing series conducted by the AIHW in 1998, 2001, 2004, 2007 & 2010. Estimates were for persons aged 14 years and over for years 1998 to 2004 and 18 years and over for years 2007 & 2010. AHS 2011/12 (ABS. Cat. No.4364.0), estimates for 18 years and over.

Smoking during pregnancy

Between 1997/1999 and 2009/2011, approximately 48% of Indigenous women and 19% of non-Indigenous women reported smoking during pregnancy (Table 4).¹⁴ While smoking rates declined among non-Indigenous pregnant women, rates among pregnant Indigenous women increased from 42% to 52%, which was consistent with the general trend of smoking prevalence among NT Indigenous females.

Table 4: Crude prevalence (%) of smoking among pregnant women, Northern Territory, 1997/1999 – 2009/2011

Indigenous status	1997-1999	2000-2002	2003-2005	2006-2008	2009-2011
Indigenous	42.1	45.6	52.3	51.7	52.2
Non-Indigenous	22.7	21.3	21.5	17.4	13.4

Source: NT Midwives Collection, Northern Territory: 1997-2011 published & unpublished data. Department of Health, Darwin, 2014. Note: For the period 1997 to 2010, smoking status was assessed at first antenatal visit. For the period 2010 and onwards, smoking status was assessed as smoking before 20 weeks gestation.

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