



## **National Year 10 ASH Snapshot Survey, 1999-2010: Trends in Tobacco Use by Students Aged 14-15 Years**

**ASH New Zealand**

**On behalf of Action on Smoking and Health, Health Sponsorship Council and the Ministry of Health**

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## Summary

The ASH Year 10 Snapshot Survey has been used to monitor student smoking and risk factors for smoking since 1999. The 2010 results in this report are presented for all students aged 14 and 15 years, and also by gender, ethnicity, school decile and District Health Board (DHB). The total sample number from 1999 to 2009 was 330,146, and 32,605 in 2010.

In 2010, the Snapshot Survey found that:

- 5.5% of all Year 10 students reported that they smoke at least daily;
- 10.0% of all students were 'regular' smokers (smoke at least monthly, weekly or daily);
- 64.3% of all students had 'never smoked', not even a few puffs of a cigarette;
- As seen in preceding years, the highest prevalence of smoking was reported by Māori females, and by students from low decile schools. Almost one in five Māori females smoke daily (17.4%), compared to fewer than one in twenty NZ European females (3.3%). However, the proportion of Māori females who report that they have never smoked continues to increase, up from 18.1% in 2005 to 34% in 2010;
- The odds of daily and regular smoking have dropped significantly between 2006 and 2010 for both female and male students, and for females, the odds of being a daily smoker in 2010 are much lower than in 2006;
- Ethnic and socioeconomic disparities in risk factors for smoking continued into 2010, however reported prevalence of smoking in the home has continued to decline for all groups;

Since the survey was last conducted in 2009, the Government and tobacco control sector have made the commitment to achieve a 'Smokefree Vision' for New Zealand. Several key policy decisions have recently been made in tobacco control, including an increase in taxation on tobacco, increased access to cessation services and pharmaceutical support to quit, a proposed ban on tobacco displays at retail outlets, and the continuation of national health promotion and social marketing activities targeting young people and parents/caregivers.

## ***Glossary of terms***

### Smoking status

<i>‘Daily’:</i>	students reporting that they smoke tobacco daily.
<i>‘Experimental’:</i>	students reporting that they had tried smoking, but did not smoke at the time of the survey.
<i>Never’:</i>	students reporting that they have never smoked a cigarette, not even “just a few puffs”.
<i>‘Parental smoking’:</i>	students reporting that one or both parents smoke tobacco.
<i>‘Regular’:</i>	students reporting that they smoke tobacco daily, weekly or monthly.
<i>‘Smoking in the home’:</i>	students who answered ‘yes’ or ‘sometimes’ to the question “Do people smoke inside your home?”

### Statistical analysis

<i>Prevalence/proportion:</i>	the percentage of students who answered ‘yes’ to a question.
<i>Confidence interval (95%):</i>	an expression of statistical confidence, showing that in 95% of cases, the true result will fall within the upper and lower ranges of the interval.
<i>Significant difference:</i>	<p>A difference or relationship that we are confident is significant to a certain level. Any differences described in this report are statistically significant.</p> <p>(Note: it can become difficult to establish significance for small sample sizes, i.e. where sub-groups like ethnicity are small, or for analyses using multiple sub-groupings, like New Zealand European females from low decile schools who smoke daily).</p>
<i>Adjusted odds ratio:</i>	odds ratio calculations that take into account certain variables that may affect a result independently of the exposure of interest, and adjusting for these (i.e. sex, age, SES, ethnicity). In this report, the odds ratios always use 2006 as the reference point for comparisons with 2010 results.
<i>Prioritised ethnicity:</i>	A way to allocate students who identify with more than one ethnic group to a single category for analysis, using a prioritisation approach to allocate all students who select

‘Māori’ as such, then remaining students who select ‘Pacific’ as such, and so on for Asian, Other and finally New Zealand European students.

*School decile group:*

All schools in New Zealand have a decile ranking from 1-10. These were grouped into low (deciles 1-3), medium (deciles 4-7) and high (deciles 8-10) categories for the analysis.

# Introduction

Smoking is the single biggest cause of preventable illness and death in New Zealand. Approximately 5,000 deaths per year are attributable to tobacco<sup>1</sup>. A recent survey showed that almost one in five young adults (aged 15 to 19 years) were current smokers (18.0%)<sup>2</sup>, and a critical part of tobacco control in New Zealand is to better understand and prevent the uptake of smoking by young people.

The ASH Year 10 Snapshot Survey has been used to monitor student smoking and risk factors for smoking since 1999. This report summarises over a decade of trends (1999-2010) in tobacco use for young people in New Zealand, with a focus on trends in smoking indicators for priority populations such as Māori, females and low socioeconomic groups.

## Method

### *Survey administration*

The ASH Year 10 Snapshot is an annual monitoring survey. Each year, all New Zealand schools with Year 10 students (except correspondence schools) are invited to participate in the survey. All schools that consent to participate are sent survey packs and instructions for teachers to supervise while the students complete the questionnaires in class. To maintain the confidentiality of the students' responses, they do not give identifying information, and teachers are asked not to check questionnaires returned by students.

All students who consent to participate complete a two-page questionnaire that asks about demographic data (age, gender and ethnicity) and information about smoking and factors influencing smoking. These include their own smoking behaviours, parent and family/whānau/friend smoking, and exposure to smoking in their home. Students are asked whether they 'have ever smoked a cigarette, even just a few puffs?' and if they smoke at the time of the survey, how often. They are also asked to indicate which parents and family/whānau members or close friends smoke. Core questions have been included in the survey every year to enable monitoring of trends over time.

### *Data analysis*

Data were collated from questionnaires and processed for logical consistency. Only those students who included information on age, gender, ethnicity and overall smoking status were included in the sample for analysis. Furthermore, to enable comparison with previous years, analysis was restricted to students aged 14 and 15 years.

All analyses were conducted using Stata IC 10.0. The survey methodology for the Year 10 Snapshot uses a census design, whereby all schools with Year 10 students are eligible and invited to participate. Every year, the survey sample has closely resembled the national Year 10 population, and weighting has not been necessary for data analysis. However, estimates of variance in prevalence results have been adjusted to allow for clustering at the school level, based on the assumption that while the data is comprised of individual students, they may show similarities within each school as a sampling unit. In addition, all odds ratios have been adjusted by key demographic factors (age, gender, ethnicity and school decile).

## ***Reporting***

The 2010 results in this report are presented for all students, and then also by gender, ethnicity, school decile and District Health Board (DHB). Data are usually shown in a table of prevalence (the percentage of students giving the response of interest), and/or using a graph to show trends over time. Additional prevalence tables and sample size information can be found in the Appendices.

To enable comparisons over time and between subgroups, some data are also presented with 95% confidence intervals. These show the range within which the true value for the population is likely to be. When confidence intervals do not overlap it can be called a statistically significant change or difference. In addition to yearly trends in results, this report also uses odds ratios to test the difference in results between 2010 and 2006. The Mantel-Haenszel test was used to calculate the odds of a given behaviour or outcome in 2010, compared to previous results from 2006. An odds ratio (and confidence interval range) of less than 1.0 implies a reduction in the odds of a given outcome in 2010 than 2006, and an odds ratio (and confidence interval range) greater than 1.0 shows that the odds of an outcome or behaviour are higher in 2010 than 2006.

Students were able to self-identify with as many ethnic categories as necessary, and were classified into ethnicity groups for analysis using the prioritisation method. School decile was used as a proxy measure of students' socioeconomic status (SES), using a ten-point scale from decile 1 schools (the most students from low SES communities), up to decile 10 schools (with the lowest proportion of low SES students)<sup>3</sup>.

Students who answered 'no' to the question "Have you ever smoked a cigarette, even just a few puffs?" were classified having 'never' smoked. Students who said they smoked daily, weekly or monthly were classified as 'regular' smokers, while those had smoked a cigarette but did not smoke in the month prior to the survey were classified as having 'experimented' with smoking.



## Results

### *Response rate*

In 2010, 295 out of 506 schools agreed to participate in the ASH Year 10 Snapshot Survey. The school-level response rate in 2010 was higher than in 2009 (Table 1). The total number of completed questionnaires returned by schools was 34,243 in 2010. Analyses were restricted to students aged 14 and 15 years old at the time of the survey and students who provided complete information on age, sex, ethnicity and smoking status. The final sample in 2010 was 32,605. The total number of Year 10 students surveyed between 1999 and 2009 was 330,146.

**Table 1: ASH Year 10 Snapshot school-level response rate, 1999 to 2010**

	Year											
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of schools (n)	329	321	308	309	312	319	278	291	241	288	264	295
Response rate (%)				67	66	65	58	57	47	54	55	58

### *Sample characteristics*

In 2010, there were 60,288 Year 10 students enrolled in schools in New Zealand<sup>4</sup>. Therefore, the 2010 Snapshot sample (32,605) represents 54% of the total 2010 Year 10 population. Compared to the national population of Year 10 students, the 2010 survey sample had a similar proportion of males and females, and closely resembled the national Year 10 ethnicity distribution (Table 2). In previous years, the proportion of female students has tended to be higher than the proportion of male students; however, in 2010 the gender distribution was almost equal to that of the national Year 10 population.

**Table 2: 2010 Year 10 ASH Snapshot sample characteristics**

Demographics	2010 ASH Year 10 Snapshot sample %	2010 National Year 10 population %
<b>Gender</b>		
Male	52.5	51.7
Female	47.5	48.3
<b>Ethnicity</b>		
NZ European	58.1	56.9
Māori	20.3	22.6
Pacific people	9.6	9.2
Asian	11.0	9.1
Other	1.0	2.2
<b>School decile group</b>		
Low (1-3)	15.9	17.8
Medium (4-7)	45.4	43.8
High (8-10)	38.7	38.4

### ***Smoking status - overall***

This section describes the overall results for students smoking behaviour in 2010, and compares these with survey trends over time. Results are also presented separately for female and male students. In 2010, the Snapshot showed the following results for Year 10 students:

- 5.5% reported that they smoke daily;
- 10.0% reported that they were 'regular' smokers (smoking at least daily, weekly or monthly);
- 20.1% reported that they had experimented with smoking;
- 64.3% reported that they had never smoked.

Both daily and regular smoking continues to decline in 2010; however, results are not significantly different from 2009 (5.6% and 10.9%, respectively; Table 3). In 2010, the percentage of students who reported they had never smoked increased slightly (but not significantly) from 64% in 2009.

Trend analyses comparing results in 2010 to 2006 indicate that the odds of student smoking in 2010 decreased significantly compared to 2006 (Table 4). This is consistent for all categories of smoking behaviour. The most significant reduction in odds of smoking is seen for daily (OR 0.64) and regular smoking (OR 0.65). The odds of a student reporting that they have never smoked in 2010 have increased significantly compared to 2006 (OR 1.61).

**Table 3: Smoking status and prevalence for all students, 1999-2010**

Smoking status	Year											
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Daily	15.6	15.2	13.5	12.4	12.1	9.8	9.0	8.2	7.3	6.8	5.6	5.5
Weekly	6.7	6.3	5.7	4.7	4.3	4.0	3.6	3.3	3.0	2.6	2.7	2.4
Monthly	6.3	6.4	5.6	4.9	4.3	3.8	4.1	2.8	2.5	2.5	2.6	2.1
Regular*	28.6	27.9	24.8	22.1	20.7	17.6	16.8	14.2	12.8	11.9	10.9	10.0
Less than monthly	14.3	13.5	14.8	11.2	10.1	7.7	7.7	6.3	5.9	5.4	5.2	5.5
Experimented <sup>†</sup>	25.5	25.5	24.5	28.3	26.8	27.7	26.1	25.5	24.0	22.0	19.9	20.1
Never smoked	31.6	33.0	35.9	38.4	42.5	47.0	49.4	54.0	57.3	60.7	64.0	64.3
Total (n)	29,032	29,370	29,398	29,285	32,927	31,921	32,761	32,841	25,978	30,872	25,762	32,605

\* Students who report smoking daily, weekly or monthly (combined total)

<sup>†</sup> Students who have tried smoking but do not currently smoke

**Table 4: Odds ratios for smoking, 2006 to 2010**

	OR	95% CI	p
<b>Smoking status</b>			
Daily	0.64	0.60-0.68	<0.001
Weekly	0.72	0.66-0.79	<0.001
Monthly	0.74	0.67-0.82	<0.001
<Monthly	0.89	0.84-0.95	<0.001
Regular	0.65	0.62-0.69	<0.001
Experimented	0.72	0.70-0.75	<0.001
Never smoked	1.61	1.56-1.66	<0.001

Odds ratio adjusted for age, gender and ethnicity

### ***Smoking status - by gender***

In 2010, the Snapshot Survey showed the following results for Year 10 female and male students:

- 6.4% of female students smoke daily;
- 4.7% of male students smoke daily;
- 11.4% of female students were 'regular' smokers;
- 8.7% of male students were 'regular' smokers;
- 63.3% of female students reported that they had never smoked;
- 65.3% of male students reported that they had never smoked.

As for earlier years, the prevalence of regular smoking among female Year 10 students in 2010 was slightly but significantly higher than males (Table 5).

The odds of daily and regular smoking dropped significantly between 2006 and 2010 for both female and male students (Table 6). For females, the odds of being a daily smoker in 2010 were lower than in 2006 (OR 0.57) compared to the decline in odds for males (OR 0.79). Conversely, the odds of having never smoked increased significantly between 2006 and 2010, especially for females (OR 1.80).

**Table 5: Smoking status and prevalence by gender, 1999-2010**

Smoking status		Year											
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Males</b>	Daily	14.1	14.1	11.6	9.9	9.9	8.1	7.2	6.2	6.2	5.8	4.9	4.7
	Weekly	5.2	5.0	4.6	3.6	3.2	2.8	2.7	2.5	2.5	2.0	2.2	2.2
	Monthly	5.4	5.3	4.8	3.8	3.4	2.9	3.0	2.1	1.9	2.0	2.0	1.8
	Regular	24.7	24.4	21.1	17.4	16.4	13.8	12.9	10.7	10.6	9.7	9.1	8.7
	<Monthly	14.0	13.2	14.7	10.9	9.0	6.5	6.6	5.5	5.4	4.7	4.5	5.3
	Experimented	28.0	27.7	26.6	30.6	28.7	29.9	28.1	26.5	25.1	22.3	20.1	20.7
	Never smoked	33.3	34.6	37.6	41.2	46.0	49.9	52.5	57.3	58.9	63.2	66.3	65.3
	Total (n)	14,468	14,577	14,411	14,349	16,352	15,598	15,718	16,293	12,467	15,133	12,169	17,119
<b>Females</b>	Daily	17.1	16.3	15.2	14.9	14.2	11.4	10.7	10.1	8.3	7.9	6.3	6.4
	Weekly	8.1	7.6	6.7	5.8	5.5	5.2	4.5	4.1	3.5	3.1	3.1	2.6
	Monthly	7.2	7.5	6.5	6.0	5.2	4.6	5.2	3.5	3.0	3.0	3.1	2.3
	Regular	32.4	31.4	28.4	26.6	24.9	21.2	20.4	17.6	14.9	14.0	12.5	11.4
	<Monthly	14.7	13.8	14.8	11.5	11.1	8.9	8.7	7.0	6.3	6.0	5.8	5.8
	Experimented	23.1	23.3	22.5	26.2	24.9	25.6	24.3	24.6	23.0	21.7	19.7	19.5
	Never smoked	29.9	31.5	34.3	35.8	39.1	44.3	46.6	50.7	55.8	58.3	61.9	63.3
	Total (n)	14,564	14,793	14,987	14,936	16,575	16,323	17,043	16,548	13,511	15,739	13,593	15,486

**Table 6: Odds ratios for smoking status by gender, 2006 to 2010**

	Males			Females		
	OR	95% CI	p-value	OR	95% CI	p-value
Daily	0.75	0.68-0.82	<0.001	0.58	0.53-0.63	<0.001
Weekly	0.88	0.76-1.02	0.085	0.63	0.56-0.72	<0.001
Monthly	0.88	0.75-1.03	0.108	0.67	0.59-0.77	<0.001
<Monthly	0.98	0.89-1.07	0.622	0.83	0.76-0.91	<0.001
Regular	0.79	0.73-0.85	<0.001	0.57	0.53-0.61	<0.001
Experimented	0.72	0.68-0.76	<0.001	0.74	0.70-0.78	<0.001
Never smoked	1.43	1.37-1.50	<0.001	1.80	1.72-1.89	<0.001

Odds ratio adjusted for age, ethnicity and SES

### ***Smoking status - by ethnicity***

This section describes survey results by ethnicity, using a prioritisation method to classify students' self-reported ethnicity. In 2010, the Snapshot Survey found the following results by ethnicity:

- 'Daily' smoking was highest among Māori students (14.1%).
- The prevalence of 'regular' smoking was highest among Māori students (20.9%), followed by Pacific (12.2%) and NZ European students (7.2%).

Table 7 below shows that regular smoking has continued to decline since 1999 for all ethnic groups. Regular smoking among Māori students has declined from 43.0% in 2000 to 20.9% in 2010.

**Table 7: Trends in regular smoking for all students by ethnicity, 1999-2010**

	NZ European	Māori	Pacific	Asian	Other
Year	%	%	%	%	%
1999	27.2	42.7	28.5	11.9	19.5
2000	26.2	43.0	28.4	12.0	22.0
2001	23.1	38.3	26.2	9.4	16.1
2002	19.9	37.3	22.1	9.3	18.8
2003	17.8	37.3	23.3	8.8	12.4
2004	14.1	33.7	21.8	6.4	12.0
2005	14.0	31.7	20.9	6.8	9.8
2006	10.6	29.1	17.7	4.8	8.4
2007	9.5	26.7	16.4	5.8	7.0
2008	9.0	24.7	14.1	4.2	5.7
2009	8.4	23.3	11.7	4.4	5.7
2010	7.2	20.9	12.2	3.4	3.2

### ***Smoking status - females by ethnicity***

In 2010, the Snapshot Survey found the following results for female students by ethnicity:

- 17.4% of Māori females reported that they smoke daily;
- 3.3% of NZ European females reported that they smoke daily;
- 34.1% of Māori females reported that they have never smoked;
- 71.2% of NZ European students reported that they have never smoked.

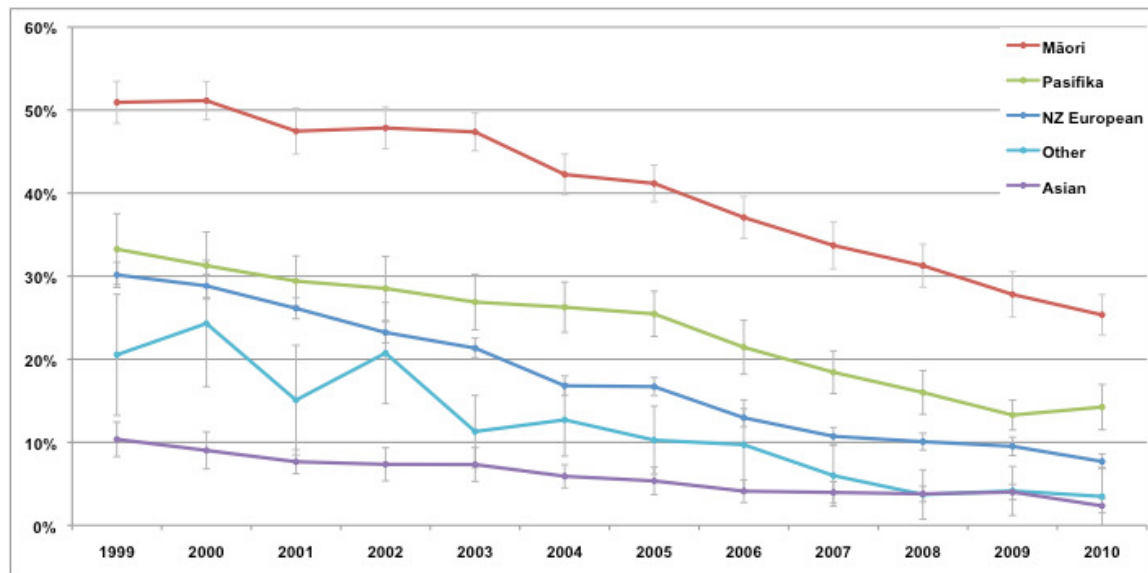
Daily smoking was highest amongst Māori female students in 2010 compared to all other ethnicities (Table 8). Eight percent of Pacific female students reported that they smoke daily. In contrast, female students of Asian (1.4%) and Other (0.7%) ethnicities report the lowest prevalence of daily smoking.

**Table 8: Trends in daily smoking for female students by ethnicity, 1999-2010**

Year	NZ European %	Māori %	Pacific %	Asian %	Other %
1999	13.0	36.2	23.0	5.9	6.6
2000	12.2	37.2	19.4	5.1	9.7
2001	11.5	34.4	19.5	3.2	8.5
2002	10.8	34.4	17.6	3.9	10.1
2003	9.9	34.2	18.1	4.5	6.5
2004	7.2	29.1	13.2	2.9	5.7
2005	7.4	26.5	14.5	2.9	4.0
2006	6.1	25.3	13.0	2.0	3.0
2007	4.9	22.4	11.0	2.3	2.4
2008	4.1	21.5	10.5	2.3	1.9
2009	3.7	17.9	7.2	1.4	0.7
2010	3.3	17.4	8.0	1.4	0.7

As seen in Figure 1, the trend in prevalence of regular smoking continues to decline for female students from all ethnic groups. Smoking among Māori females has declined particularly rapidly since 2003.

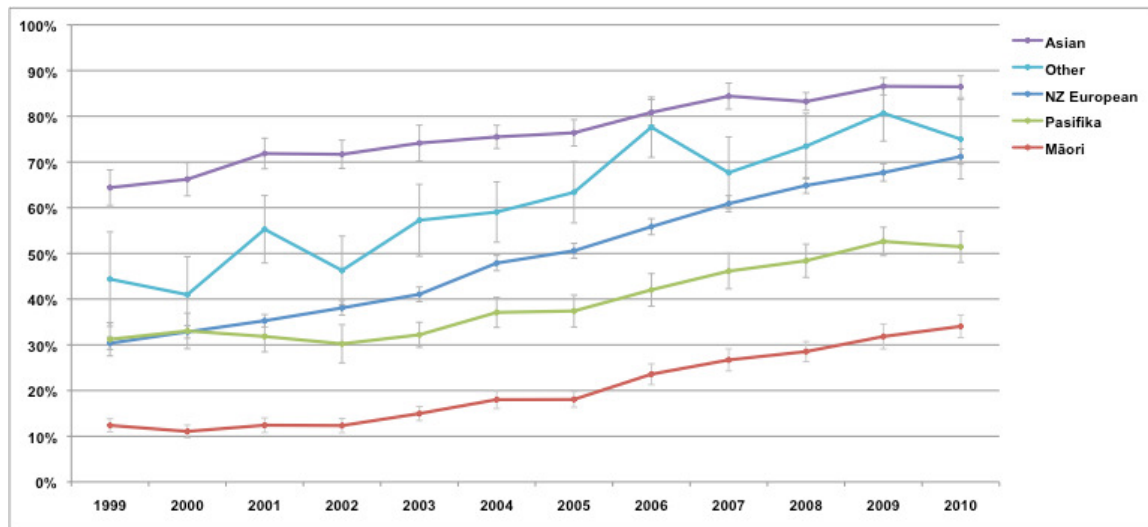
**Figure 1: Trends in regular smoking for female students by ethnicity, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

The trend in having never smoked for female students continues to rise for most ethnic groups. The apparent decrease in never smoking for ‘Other’ and Pacific females is not significant (Figure 2), and year-to-year comparisons can be difficult with these two groups due to smaller sample sizes. The increasing prevalence of having never smoked can be seen most clearly for NZ European and Māori females, particularly since 2003.

**Figure 2: Trends in having never smoked for female students by ethnicity, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

For all female students, the odds of being a ‘regular’ smoker in 2010 were significantly lower than in 2006 (Table 9). The greatest change in odds of regular smoking was seen for females of ‘Other’ ethnicity, and Māori females were almost half as likely to smoke in 2010 as they were in 2006.

**Table 9: Odds ratios for smoking status for females, 2006 to 2010**

Smoking status	OR	95% CI	p-value
<b>Daily</b>			
Māori	0.61	0.54-0.69	<0.001
Pacific	0.55	0.42-0.71	<0.001
Asian	0.70	0.40-1.21	0.194
NZ European	0.54	0.47-0.62	<0.001
Other	0.14	0.01-2.79	0.135
<b>Regular</b>			
Māori	0.57	0.52-0.63	<0.001
Pacific	0.61	0.49-0.75	<0.001
Asian	0.56	0.37-0.85	0.006
NZ European	0.57	0.52-0.63	<0.001
Other	0.42	0.15-1.17	0.087
<b>Never</b>			
Māori	1.69	1.52-1.89	<0.001
Pacific	1.48	1.26-1.73	<0.001
Asian	1.54	1.27-1.87	<0.001
NZ European	1.93	1.82-2.06	<0.001
Other	0.77	0.44-1.36	0.373

Odds ratio adjusted for age and SES



### ***Smoking status - males by ethnicity***

In 2010, the Snapshot Survey found the following results for male students by ethnicity:

- 10.9% of Māori males reported that they smoke daily;
- 2.9% of NZ European males reported that they smoke daily;
- 46% of Māori male students reported that they have never smoked;
- 70.0% of NZ European males reported that they have never smoked;

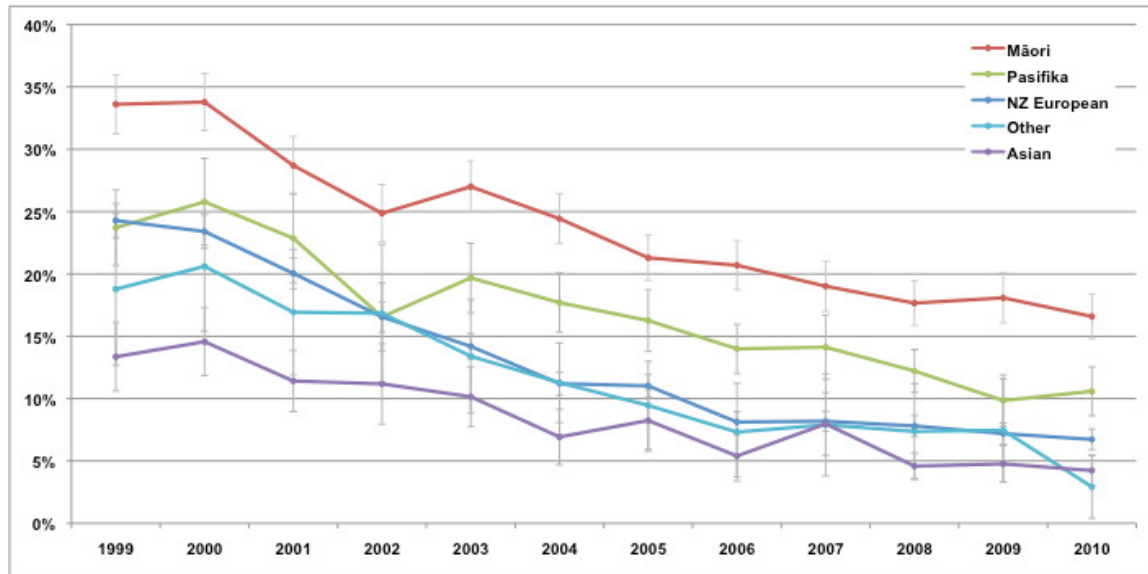
In 2010, male students of Māori ethnicity reported the highest prevalence of daily smoking, followed by Pacific males (Table 10). Over time, male students of New Zealand European, Asian and 'Other' ethnicities have dropped to fewer than one in twenty reporting that they smoke daily, from around one in ten when the survey started in 1999.

**Table 10: Trends in daily smoking for male students by ethnicity, 1999-2010**

<b>Year</b>	<b>NZ European %</b>	<b>Māori %</b>	<b>Pacific %</b>	<b>Asian %</b>	<b>Other %</b>
<b>1999</b>	12.6	23.6	16.6	7.9	9.1
<b>2000</b>	12.1	24.2	16.8	9.4	13.2
<b>2001</b>	10.0	19.1	14.1	7.2	11.3
<b>2002</b>	8.5	16.8	10.8	7.5	10.3
<b>2003</b>	7.6	19.4	12.5	6.4	6.2
<b>2004</b>	5.9	16.2	11.8	3.8	7.0
<b>2005</b>	5.4	14.0	10.2	5.3	5.1
<b>2006</b>	4.0	13.5	8.5	3.4	5.5
<b>2007</b>	4.2	12.4	8.9	5.4	4.2
<b>2008</b>	3.7	12.5	8.9	2.8	3.2
<b>2009</b>	3.2	11.1	6.0	3.2	3.0
<b>2010</b>	2.9	10.9	6.1	2.0	1.8

The trend in prevalence of regular smoking among male students continues to decline for all ethnic groups. Despite a slight rise between 2008 and 2009, regular smoking among Māori males dropped again between 2009 and 2010 (Figure 3).

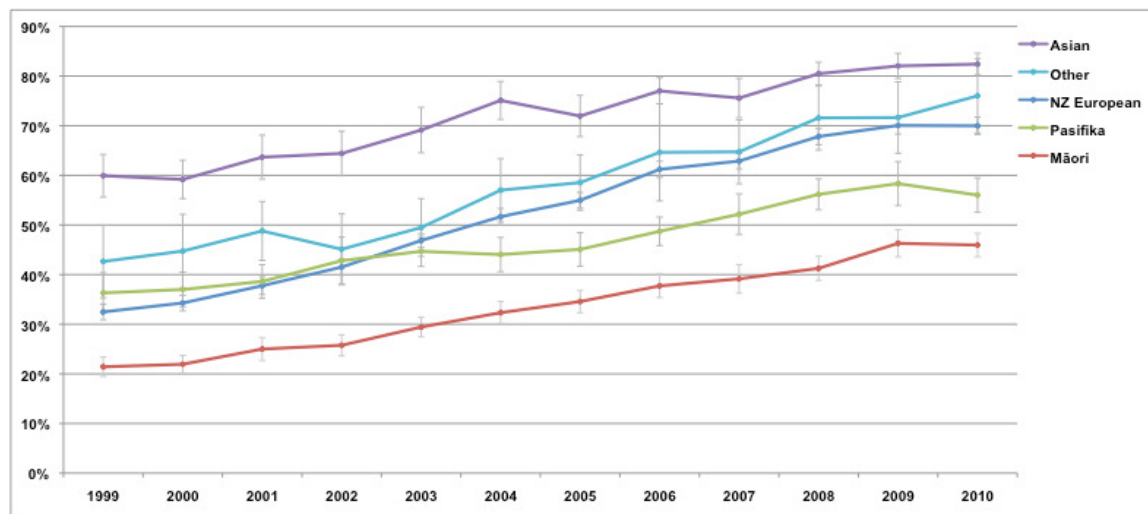
**Figure 3: Trends in regular smoking for Year 10 male students by ethnicity, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

In 2010 almost one-half of Māori males reported that they had never smoked, up from one in five when the survey started in 1999 (Figure 4). Seven out of ten New Zealand European males had never smoked in 2010. The prevalence of having never smoked did not increase for any ethnic groups except 'Other' between 2009 and 2010.

**Figure 4: Trends in having never smoked for male students by ethnicity, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

The odds of daily and regular smoking were significantly lower in 2010 than 2006 for males of Māori, Pacific and NZ European ethnicity (Table 11). These groups (along with males of Asian ethnicity) also have much higher odds of having never smoked in 2010 compared with 2006.

**Table 11: Odds ratios for smoking status for males, 2006 to 2010**

Smoking status	OR	95% CI	p-value
<b>Daily</b>			
Māori	0.80	0.69-0.92	0.003
Pacific	0.67	0.50-0.89	0.006
Asian	0.63	0.42-0.96	0.029
NZ European	0.74	0.64-0.87	<0.001
Other	0.30	0.07-1.17	0.066
<b>Regular</b>			
Māori	0.77	0.68-0.87	
Pacific	0.72	0.57-0.90	0.004
Asian	0.80	0.58-1.09	0.158
NZ European	0.83	0.75-0.93	<0.001
Other	0.37	0.13-1.09	0.060
<b>Never</b>			
Māori	1.39	1.26-1.54	<0.001
Pacific	1.35	1.16-1.57	<0.001
Asian	1.41	1.19-1.66	<0.001
NZ European	1.46	1.37-1.55	<0.001
Other	1.59	0.98-2.60	0.06

Odds ratio adjusted for age and SES

### ***Smoking status - Pacific ethnicities***

This section briefly describes the 2010 Snapshot Survey results for students of Pacific ethnicity. Due to the small number of respondents of Pacific ethnicities in the survey, the results from 2009 and 2010 have been combined to enable comparisons of smoking status.

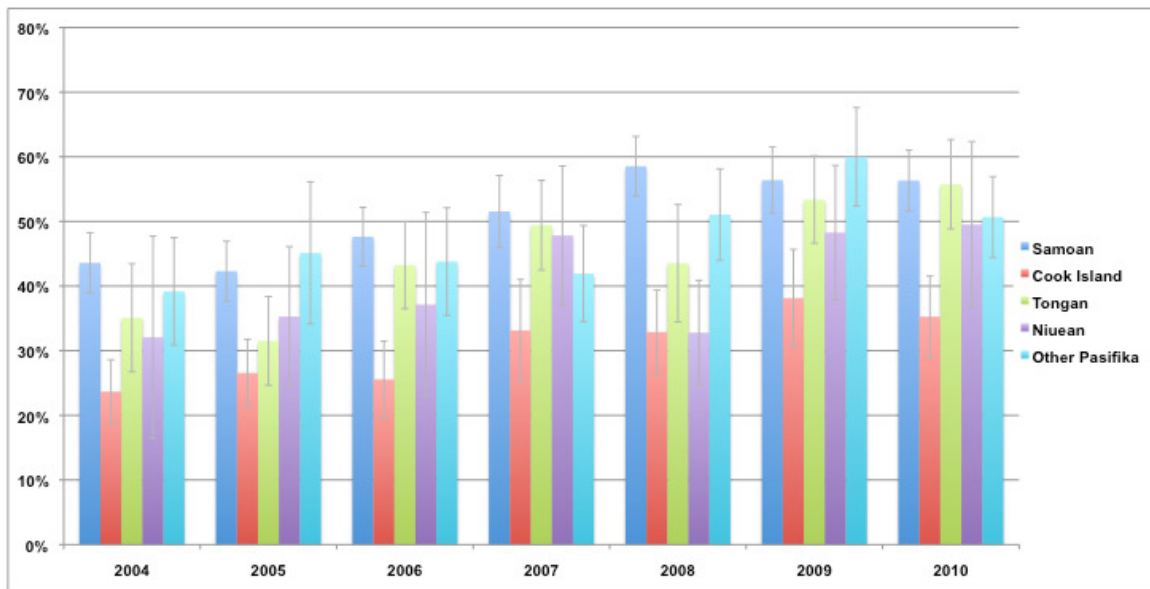
Daily smoking prevalence for female students of Pacific ethnicity is highest amongst Cook Island and Niuean females and lowest amongst 'Other' Pacific females (Table 12). For male Pacific students, Tongan and Cook Island groups reported the highest prevalence of daily smoking in 2009 and 2010 combined, and 'Other' Pacific also reported the lowest prevalence of daily smoking.

**Table 12: Prevalence of smoking status for Pacific students, 2009 and 2010 combined**

	<b>Daily %</b>	<b>Regular %</b>	<b>Never smoked %</b>	<b>Total (n)</b>
<b>Males</b>				
Samoan	5.2	8.7	62.6	1,099
Cook Island	7.1	12.9	47.6	464
Tongan	8.6	12.9	49.2	567
Niuean	5.8	9.9	51.8	191
Other Pacific	4.1	8.4	64.1	463
<b>Females</b>				
Samoan	5.1	10.3	56.4	1,102
Cook Island	14.8	23.5	36.7	439
Tongan	7.4	13.8	54.6	529
Niuean	12.0	17.2	49.0	192
Other Pacific	4.7	11.2	54.9	401

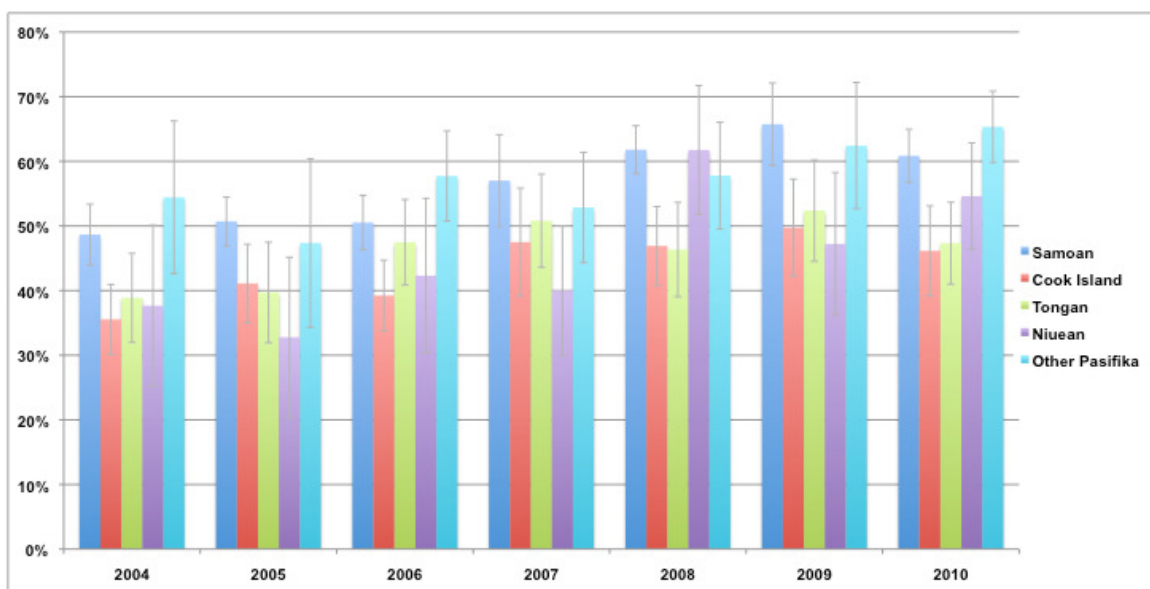
Over time, the trend for having never smoked has increased across all Pacific ethnic groups between 2004 and 2010, despite some fluctuations between time points (Figures 5 and 6). For both gender groups, Samoan students tend to have the highest prevalence of students who have never smoked, and Cook Island students the lowest, although these differences are not always statistically significant.

**Figure 5: Trends in having never smoked for females of Pacific ethnicity, 2004-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

**Figure 6: Trends in having never smoked for males of Pacific ethnicity, 2004-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

### Smoking status - Asian ethnicities

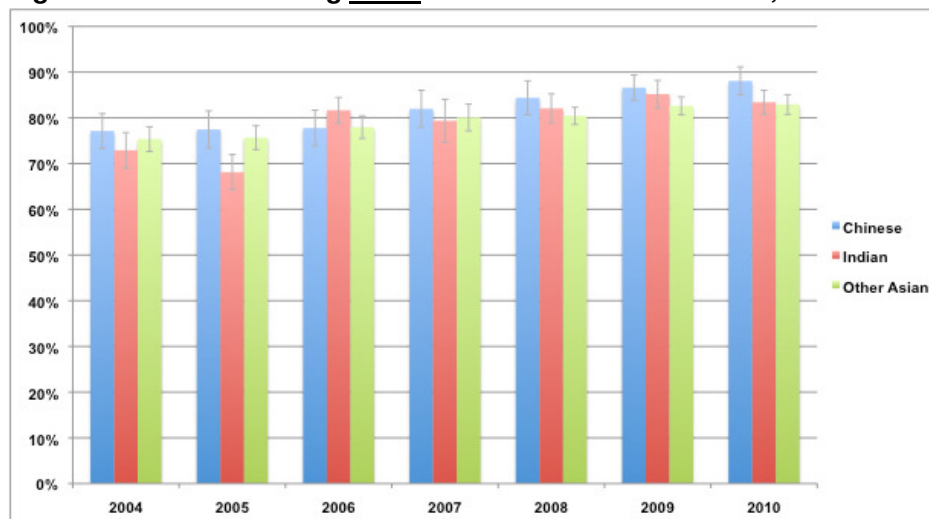
This section gives a brief description of survey results for students of Asian ethnicity. Due to the small number of respondents of Asian ethnicities in the survey, the results from 2009 and 2010 have been combined to enable comparisons of smoking status.

For female and male students, the prevalence of regular smoking was below 5% for Chinese, Indian and 'Other' Asian students (Table 14). Similarly, the prevalence of having never smoked was high for all students (Figure 7) and has increased since 2004.

**Table 14: Prevalence of smoking status for Asian students, 2009 and 2010 combined**

	Daily %	Regular %	Never smoked %	Total (n)
<b>Males</b>				
Chinese	2.8	4.3	86.0	858
Indian	2.4	4.4	83.0	889
Other Asian	2.5	4.6	79.9	1,662
<b>Females</b>				
Chinese	1.8	2.5	89.1	681
Indian	1.4	3.5	85.3	921
Other Asian	1.2	3.2	86.0	1,474

**Figure 7: Trends in having never smoked for Asian students, 2004-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

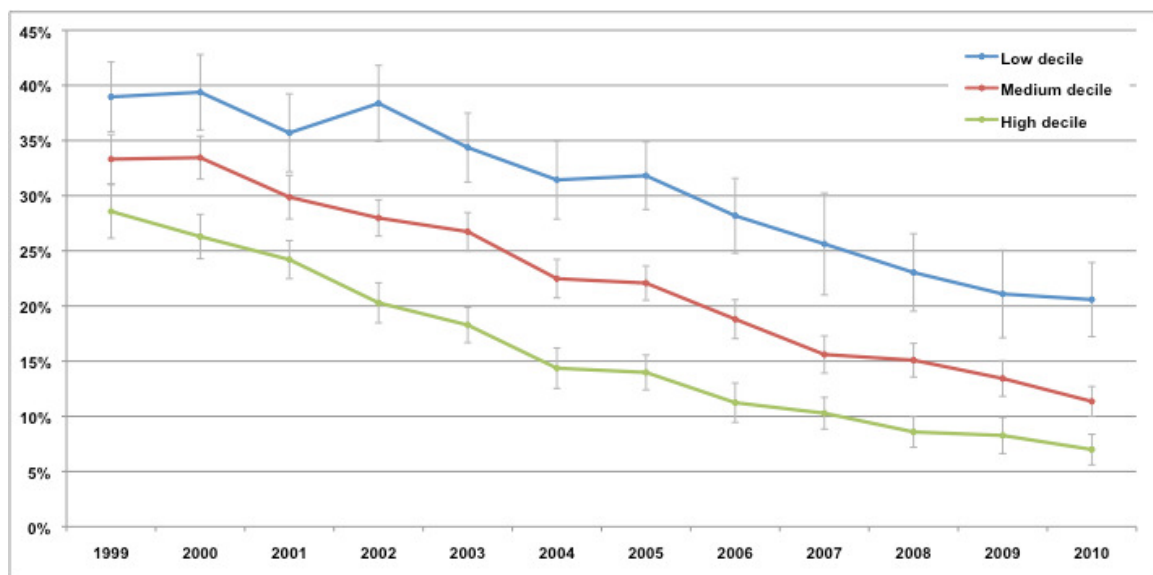
### ***Smoking status - females by school decile group***

This section describes the results of the 2010 survey by school decile group, which is a proxy measure of students' socioeconomic status (SES). In 2010, the following results were found for females by decile group:

- 20.6% of female students from low decile schools were 'regular' smokers;
- 7.0% of female students from high decile schools were 'regular' smokers;
- 74.4% of female students from high decile schools had never smoked;
- 44.4% of female students from low decile schools had never smoked.

As seen on Figure 8, the trend in regular smoking prevalence continues to decline for female students from all three school decile groups (Figure 8).

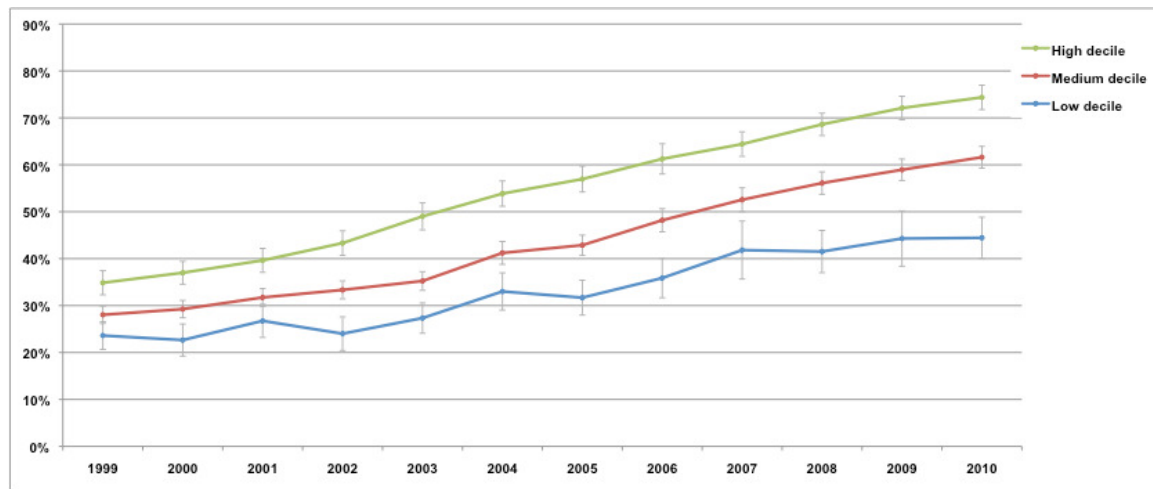
**Figure 8: Trends in regular smoking for female students by school decile, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

The trend of increasing prevalence for having never smoked has been more gradual for females from low decile schools than from medium or high decile schools (Figure 9).

**Figure 9: Trends having never smoked for female students by school decile, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

The odds of females smoking daily or regularly (adjusted for age and ethnicity) were lower in 2010 than 2006 for all school decile groups (Table 15).

**Table 15: Odds ratios for smoking status for females by school decile, 2006 to 2010**

Smoking status	OR	95% CI	p-value
<b>Daily</b>			
Low decile	0.69	0.59-0.80	<0.001
Medium decile	0.51	0.45-0.58	<0.001
High decile	0.59	0.49-0.73	<0.001
<b>Regular</b>			
Low decile	0.67	0.59-0.77	<0.001
Medium decile	0.53	0.48-0.58	<0.001
High decile	0.57	0.50-0.66	<0.001
<b>Never</b>			
Low decile	1.42	1.25-1.61	<0.001
Medium decile	1.85	1.73-1.98	<0.001
High decile	1.92	1.77-2.10	<0.001

Odds ratio adjusted for age, gender and ethnicity



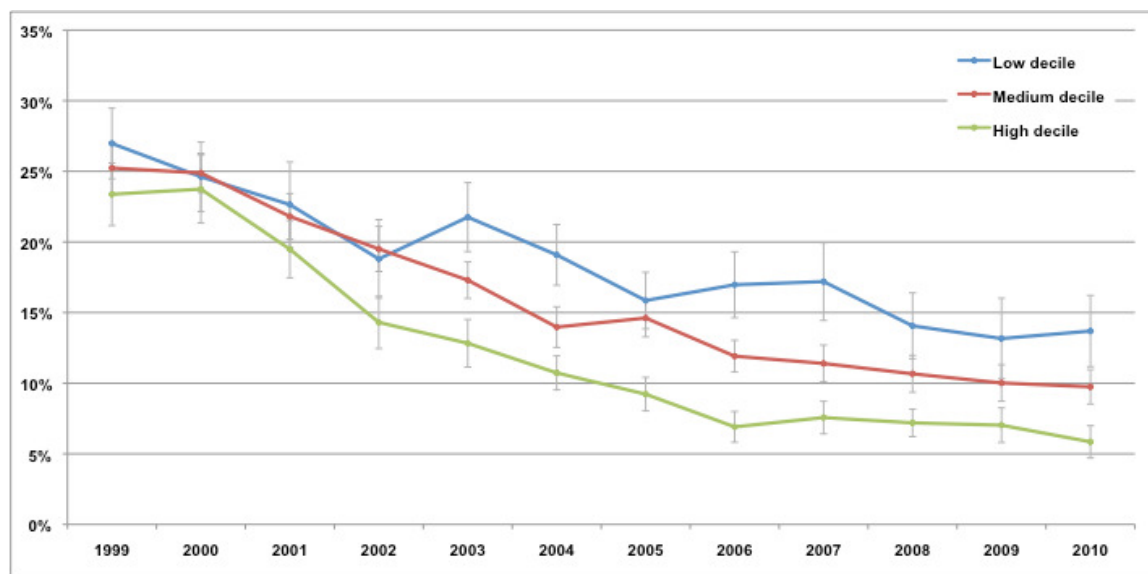
### ***Smoking status - males by school decile group***

In 2010, the following results were found for males by school decile group:

- 13.7% of male students from low decile schools were 'regular' smokers;
- 5.9% of male students from high decile schools were 'regular' smokers;
- 72.2% of male students from high decile schools had never smoked;
- 53.3% of male students from low decile schools had never smoked.

Over time, regular smoking prevalence continues to decline for male students from all three school decile groups (Figure 10). Since the survey started in 1999 (when prevalence was higher, but differences between male students from deciles groups were small), the gap between prevalence has widened. In 2010, differences between regular smoking prevalence for males at low and high decile schools, and medium and high decile were significant.

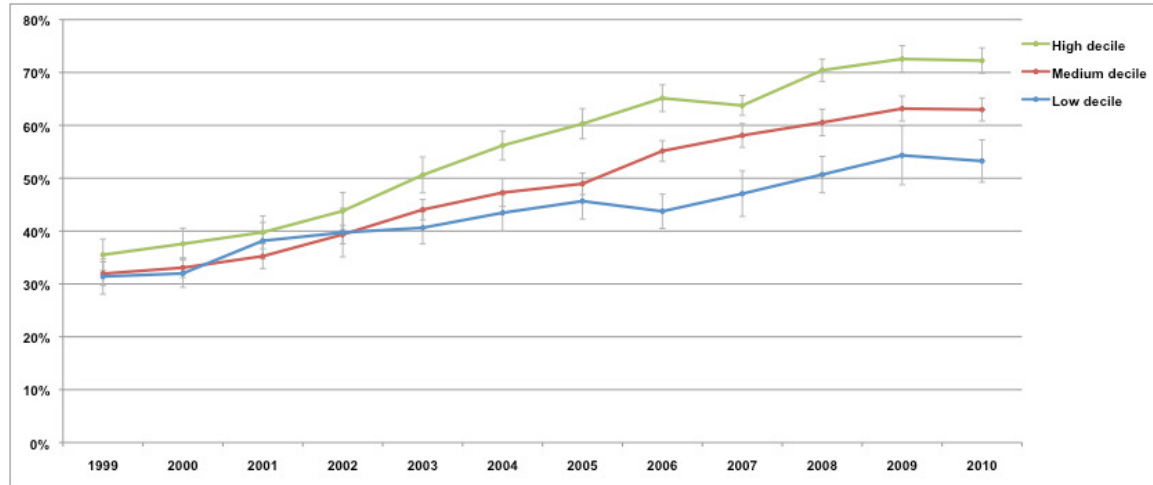
**Figure 10: Trends in regular smoking for males by school decile, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

As seen for regular smoking, the trend for having never smoked among male students from low, medium and high decile schools continues upward for all groups (Figure 11). In earlier years of the survey, differences in having never smoked for male students by school decile group were not significant, but more recently they have become so.

**Figure 11: Trends having never smoked for males by school decile group, 1999-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

The odds of a male Year 10 student being a daily or regular smoker have reduced between 2006 and 2010 for all school decile levels (Table 16).

**Table 16: Odds ratios for smoking status for males by school decile group, 2006 to 2010**

Smoking status	OR	95% CI	p-value
<b>Daily</b>			
Low decile	0.74	0.61-0.89	0.002
Medium decile	0.77	0.67-0.88	<0.001
High decile	0.71	0.58-0.87	<0.001
<b>Regular</b>			
Low decile	0.79	0.67-0.93	0.004
Medium decile	0.78	0.70-0.86	<0.001
High decile	0.82	0.71-0.95	<0.001
<b>Never</b>			
Low decile	1.43	1.28-1.61	<0.001
Medium decile	1.44	1.35-1.54	<0.001
High decile	1.42	1.31-1.53	<0.001

Odds ratio adjusted for age, gender and ethnicity

## ***Smoking risk factors - parental smoking and smoking in the home***

This section describes the 2010 Snapshot Survey results for two risk factors for student smoking: parental smoking status, and whether smoking occurs inside their home. Additional results for both of these indicators can be found in Appendix 1.

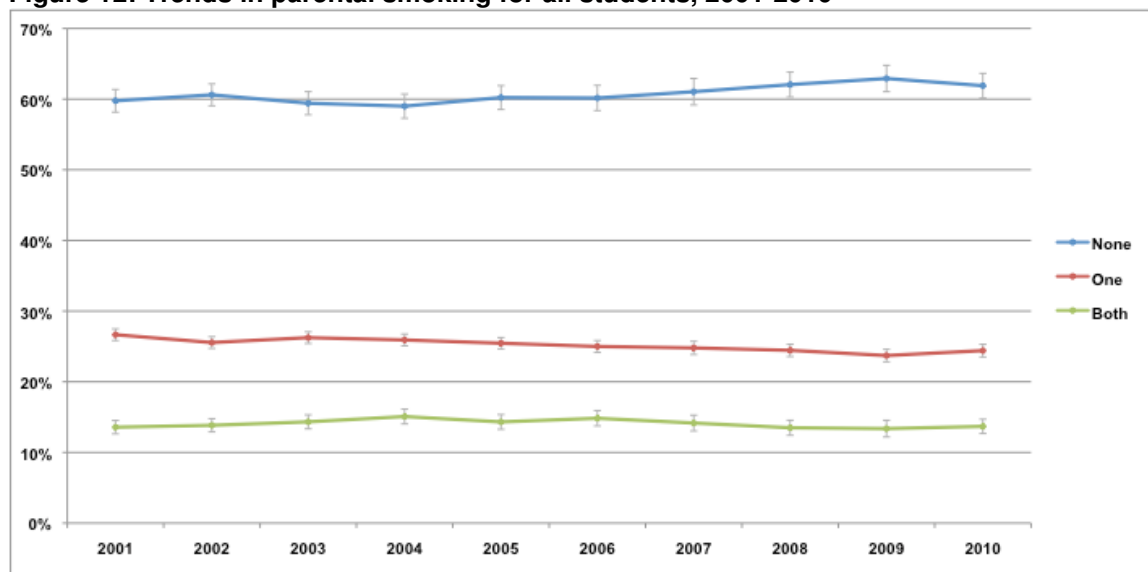
### **Parental smoking**

In 2010, the survey found the following results for parental smoking status:

- 38.1% of all students reported that one or both of their parents smoke;
- 62.7% of Māori students reported that one or both of their parents smoke;
- 44.9% of Pacific students reported that one or both of their parents smoke;
- 31.6% of NZ European students reported that one or both of their parents smoke;
- 61.9% of students reported that neither of their parents smokes.

Almost one-quarter of all students had one parent who smoked (24.4%) and over one in ten had both parents who smoke (13.7%, Figure 12).

**Figure 12: Trends in parental smoking for all students, 2001-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

The odds of a student having one or both parents who smoke have decreased slightly for Māori, Pacific and Asian ethnicities between 2006 and 2010 (Table 17).

**Table 17: Odds ratios for parental smoking, 2006 to 2010**

	OR	95% CI	p-value
<b>Parental smoking</b>			
NZ European	0.97	0.93-1.01	0.171
Māori	0.92	0.85-0.99	0.020
Pacific	0.83	0.75-0.93	0.001
Asian	0.86	0.77-0.96	0.008
Other	0.98	0.68-1.42	0.936

Odds ratios were adjusted for age, sex and SES

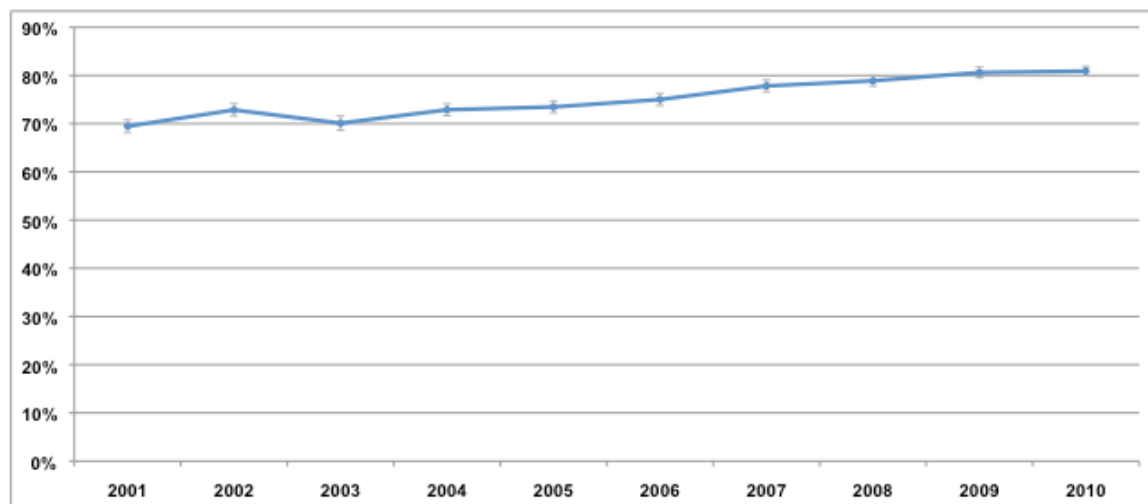
### Smoking in the home

In 2010, the survey found the following results for smoking inside their home:

- 19.1% of students reported that people smoke inside their home;
- 31.7% of Māori students reported that people smoke inside their home;
- 19.7% of Pacific students reported that people smoke inside their home;
- 16.1% of NZ European students reported that people smoke inside their home;

Over eight out of ten students reported that people did not smoke inside their house in 2010, continuing the upward trend in ‘smokefree’ homes since 2003 (Figure 13). While being the group with the lowest prevalence of non-smoking households, this indicator has risen significantly for Māori students, from 52.1% in 2003 to 68.3% in 2010.

**Figure 13: Trends reporting that people do not smoke inside the home for all students, 2001-2010**



Error bars show a 95% confidence interval, adjusted for clustering of data by school

Over time, the odds of students reporting that people smoke inside their home have dropped significantly for all ethnicity groups except 'Other' (Table 18), with the greatest drop in odds for Pacific (OR 0.64) and Māori students (OR 0.71).

**Table 18: Odds ratios for smoking in the home, 2006 to 2010**

	OR	95% CI	p-value
<b>Smoking in the home</b>			
NZ European	0.72	0.68-0.76	<0.001
Māori	0.71	0.66-0.77	<0.001
Pacific	0.64	0.57-0.73	<0.001
Asian	0.76	0.66-0.87	<0.001
Other	0.76	0.48-1.21	0.241

Odds ratios were adjusted for age, sex and SES

### ***Smoking status - by District Health Board***

This section gives an overview of 2010 Snapshot Survey results for smoking status and related risk factors at the District Health Board (DHB) level. Additional results by DHB can be found in Appendix 2.

In 2010, students in the following DHBs reported the lowest prevalence of daily smoking:

- Auckland (2.4%);
- Capital & Coast (3.8%);
- Waitemata (4.1%);
- Nelson-Marlborough (4.1%).

The highest prevalence of daily smoking was reported by students in Southland (12.3%), Whanganui (11.0%) and the West Coast (10.4%) DHBs.

The highest prevalence of students having never smoked was reported in the following DHBs:

- Auckland (72.3%);
- Capital & Coast (71.8%);
- Nelson-Marlborough (69.7%).

The lowest prevalence of students having never smoked was reported in the West Coast (40.9%), Whanganui (49.1%) and Tairāwhiti (49.3%) DHBs.

In 2010, students in the following DHBs reported the lowest prevalence of parental smoking (one or both parents who smoke):

- Auckland (29.8%);
- Capital & Coast (30.7%);
- Nelson-Marlborough (33.7%).

The highest prevalence of parental smoking was reported by students in Whanganui (53.8%), the West Coast (51.7%) and Northland (48.6%) DHBs.

In 2010, students in the following DHBs reported the lowest prevalence of people smoking in the home:

- Capital & Coast (14.3%);
- Auckland (14.6%);
- Nelson-Marlborough (15.1%) .

The highest prevalence of people smoking in the home was reported by students in Whanganui (31.1%), the West Coast (28.9%) and Southland (25.2%) DHBs.

Changes in smoking prevalence at DHB level were tested between 2006 and 2010 using odds ratios. The odds of a student being a regular smoker reduced the most over this period in Mid Central (OR 0.38), Lakes (OR 0.43), Northland (0.45) and Tairāwhiti (OR 0.47) DHBs.

All DHBs had a significant increase in the odds of a student reporting they had never smoked, except West Coast, Southland and Whanganui DHBs. The greatest increases in odds of students reporting they had never smoked between 2006 and 2010 occurred in Mid Central (2.35), Nelson-Marlborough (2.16), Lakes (1.87) and Bay of Plenty (1.86) DHBs.

It is important to note here that changes in student smoking rates over time at DHB level can be highly variable due to the smaller number of respondents in some DHBs (i.e. Tairāwhiti, Whanganui, Wairarapa, West Coast and South Canterbury).

## Discussion

The ASH Year 10 Snapshot Survey has been used to monitor smoking and related risk factors for young people across New Zealand for the past decade. In 2010, the survey achieved a high response rate, and included over half of all Year 10 students enrolled in schools across New Zealand. Since 1999, data has been collected from over 360,000 students and has enabled detailed trend and population sub-group analyses.

Data from the 2010 Snapshot Survey show that the prevalence of daily and regular smoking among Year 10 students has continued to decline, to 5.5% and 10.0%, respectively. The odds of a student being a 'regular' smoker in 2010 are now a third less than in 2006. The positive trend for 'never smoking' has continued from 2009 to 2010, and smoking behaviours among priority groups such as Māori students and females continue to decline. In particular, the prevalence of Māori students who have never smoked has risen more steeply since 2005 than that of other groups.

Two risk factors for student smoking are included in this survey: parental smoking, and whether people smoke in a student's home. Over time, the prevalence of parental smoking as reported by students has stayed around 40% since 1999, however the proportion of students living in smoke-free homes has continually increased since 1999. In 2010, eight out of ten students said that people did not smoke inside their home. Over two-thirds of Māori Year 10 students reported that their homes were Smokefree in 2010, up from just over half in 1999. Smoking and risk factors for smoking such as parental smoking and smoking in the home are more prevalent amongst male and female students attending low decile schools.

Since the survey was last conducted in 2009, the Government and tobacco control sector have made the commitment to achieve a 'Smokefree Vision' for New Zealand. Several key regulatory decisions have recently been made in tobacco control, including an increase in taxation on tobacco, increased access to cessation services and pharmaceutical support to quit, a proposed ban on tobacco displays at retail outlets, and the continuation of national health promotion and social marketing activities targeting young people and parents/caregivers. Higher tobacco prices and improved access to cessation support will continue to have an impact on adult smoking, but also on youth access to tobacco through purchase and social supply, and will reduce the role modelling of smoking behaviour. A Māori Affairs Select Committee highlighted the need to reduce the impact of tobacco on Māori, and to address the high prevalence of smoking among Māori females, and the younger age of uptake among Māori<sup>5</sup>.

A national youth-focussed 'Smoking Not *Our* Future' media campaign has been running nationwide since 2007, and has made an impact with target audiences. Other general social marketing campaigns to reduce smoking in the home and to put tobacco 'back on the radar' are working to influence the attitudes and behaviours of young people too.

The 2010 ASH Year 10 Snapshot Survey provides information for the planning and evaluation of all of these measures, and a crucial tool for keeping an eye on reducing youth uptake.

## References

1. Ministry of Health. 2009. *Health Targets 2009/10*. Wellington: Ministry of Health.
2. Ministry of Health. 2010. *Tobacco Use in New Zealand: Key findings from the 2009 New Zealand Tobacco Use Survey*. Wellington: Ministry of Health.
3. Ministry of Education. 2008. *NZ Education: Deciles information*. Accessed online <http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/SchoolOperations/Resourcing/OperationalFunding/Deciles/DecilesInformation.aspx>, 7 April 2011.
4. Ministry of Education. 2011. *Student Numbers 2010*. Education Counts. Wellington: Ministry of Education.
5. Māori Affairs Select Committee. 2010. *Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori*. Presented to the House of Representatives by Hon Tau Henare, November 2010. Wellington: 49<sup>th</sup> Parliament.



## Appendix 1: Parental smoking and smoking in the home

**Table A1: Prevalence of parental smoking for all students, 2001-2010**

Year	Parental smoking %	95% CI	Total sample (n)
2001	40.2	38.6-41.8	29,271
2002	39.4	37.8-40.9	28,689
2003	40.6	38.9-42.2	32,482
2004	41.0	39.3-42.7	31,576
2005	39.8	38.1-41.5	32,374
2006	39.8	38.1-41.6	32,413
2007	39.0	37.1-40.8	25,549
2008	37.9	36.2-39.7	30,433
2009	37.1	35.2-39.0	25,353
2010	38.1	36.4-39.8	32,068

**Table A2: Prevalence of parental smoking by ethnicity, 2001-2010**

Ethnic group	Year	Parental smoking %	95% CI	Total sample (n)
NZ European	2001	34.1	32.8-35.4	19,812
	2002	33.7	32.5-35.0	19,416
	2003	35.0	33.6-36.5	20,891
	2004	35.0	33.5-36.5	19,676
	2005	33.9	32.5-35.3	20,978
	2006	33.0	31.4-34.5	20,244
	2007	33.1	31.6-34.7	16,083
	2008	31.3	29.7-33.0	17,981
	2009	31.1	29.6-32.6	15,446
	2010	31.6	30.0-33.1	18,697
Māori	2001	65.9	63.6-68.2	5,005
	2002	64.8	63.0-66.6	4,833
	2003	64.2	62.6-65.9	5,672
	2004	64.1	62.3-65.9	5,966
	2005	65.2	63.5-66.9	5,584
	2006	65.1	63.1-67.2	6,491
	2007	62.5	60.1-64.8	4,802
	2008	62.4	60.6-64.2	5,773
	2009	62.4	60.1-64.6	4,524
	2010	62.7	60.8-64.6	6,465
Pacific	2001	49.9	47.3-52.6	1,846
	2002	45.5	43.2-47.9	1,852
	2003	47.0	44.5-49.5	2,252

	2004	49.4	47.0-51.9	2,261
	2005	49.0	46.7-51.2	2,186
	2006	49.3	47.0-51.6	2,298
	2007	47.5	44.8-50.2	1,828
	2008	44.4	42.6-46.3	2,943
	2009	45.3	42.9-47.8	2,254
	2010	44.9	43.0-46.9	3,062
Asian	2001	29.9	27.3-32.4	2,164
	2002	29.2	26.8-31.6	2,225
	2003	31.8	29.6-34.1	3,133
	2004	30.2	28.2-32.2	3,042
	2005	29.2	27.2-31.1	3,080
	2006	25.7	24.0-27.5	3,086
	2007	26.4	23.9-29.0	2,485
	2008	26.8	25.2-28.3	3,394
	2009	24.3	22.7-25.9	2,856
	2010	22.8	21.1-24.6	3,534
Other	2001	34.5	29.2-39.7	444
	2002	35.0	30.0-40.0	363
	2003	30.0	25.0-35.0	534
	2004	31.7	27.3-36.1	631
	2005	28.8	25.0-32.5	546
	2006	27.6	21.4-33.7	294
	2007	27.9	22.7-33.1	351
	2008	27.5	22.2-32.7	342
	2009	22.7	17.9-27.5	273
	2010	26.1	20.9-31.4	310

**Table A3: Prevalence of parental smoking by school decile, 2001-2010**

School decile group	Year	Parental smoking	95% CI	Total sample (n)
		%		
Low	2001	55.7	52.9-58.5	5,157
	2002	55.1	53.0-57.2	4,640
	2003	54.3	52.0-56.7	5,483
	2004	54.6	51.6-57.6	6,086
	2005	55.7	52.5-59.0	4,838
	2006	58.2	55.1-61.3	4,626
	2007	55.7	52.1-59.3	3,684
	2008	54.7	51.6-57.7	4,938
	2009	53.7	49.1-58.4	3,444
	2010	53.7	50.3-57.1	5,216

Medium	2001	43.5	42.0-45.0	17,058
	2002	42.2	40.8-43.6	17,913
	2003	44.3	43.0-45.7	20,194
	2004	44.4	42.7-46.1	19,715
	2005	43.1	41.7-44.5	20,390
	2006	43.4	41.9-45.0	20,929
	2007	43.1	41.3-45.0	14,959
	2008	42.2	40.7-43.7	18,214
	2009	41.7	40.0-43.5	14,753
	2010	42.3	40.6-44.0	19,498
High	2001	30.6	28.9-32.3	12,025
	2002	29.3	27.6-30.9	10,673
	2003	29.9	27.9-31.9	12,074
	2004	29.9	27.9-31.8	11,572
	2005	28.9	27.0-30.8	11,790
	2006	27.4	25.3-29.4	11,470
	2007	28.7	26.7-30.7	10,590
	2008	26.6	25.0-28.2	12,219
	2009	26.7	24.9-28.5	10,597
	2010	26.8	25.0-28.7	12,570

**Table A4: Prevalence of smoking in the home for all students, 2001-2010**

Year	Smoking in home %	95% CI	Total sample (n)
2001	30.5	29.2-31.9	28,975
2002	27.1	25.8-28.5	28,205
2003	29.9	28.4-31.4	32,175
2004	27.1	25.9-28.3	31,921
2005	26.5	25.3-27.7	32,759
2006	25.0	23.7-26.2	32,604
2007	22.2	21.0-23.4	25,737
2008	21.1	20.0-22.2	30,589
2009	19.4	18.3-20.5	25,565
2010	19.1	18.1-20.1	32,356

**Table A5: Prevalence of smoking in the home by ethnicity, 2001-2010**

Ethnic group	Year	Smoking in home		Total sample (n)
		%	95% CI	
NZ European	2001	27.1	25.9-28.3	19,611
	2002	23.9	22.7-25.0	19,089
	2003	26.2	24.9-27.5	20,717
	2004	25.0	23.7-26.2	19,854
	2005	23.5	22.3-24.7	21,171
	2006	21.6	20.4-22.8	20,367

	2007	18.9	17.9-19.9	16,206
	2008	17.6	16.5-18.8	18,056
	2009	17.1	16.0-18.2	15,562
	2010	16.1	15.1-17.0	18,866
Māori	2001	47.5	45.5-49.4	4,969
	2002	44.2	42.4-46.0	4,642
	2003	47.9	46.3-49.5	5,605
	2004	39.7	37.8-41.6	6,047
	2005	41.7	40.1-43.4	5,677
	2006	39.7	37.7-41.7	6,522
	2007	36.4	34.5-38.4	4,810
	2008	35.4	33.8-37.0	5,806
	2009	32.4	30.5-34.3	4,568
	2010	31.7	30.1-33.3	6,515
Pacific	2001	34.7	31.9-37.5	1,810
	2002	27.5	25.0-30.0	1,796
	2003	34.3	32.2-36.4	2,206
	2004	25.3	22.9-27.8	2,300
	2005	28.6	26.6-30.5	2,246
	2006	27.5	25.3-29.6	2,308
	2007	25.3	23.4-27.2	1,854
	2008	22.1	20.5-23.6	2,961
	2009	18.5	17.0-20.1	2,277
	2010	19.7	18.0-21.5	3,093
Asian	2001	20.0	17.7-22.2	2,143
	2002	19.8	17.5-22.0	2,318
	2003	20.2	18.0-22.4	3,121
	2004	20.1	18.7-21.6	3,077
	2005	19.0	17.5-20.5	3,117
	2006	15.1	13.8-16.5	3,116
	2007	13.8	12.1-15.5	2,512
	2008	14.8	13.7-16.0	3,419
	2009	12.2	10.7-13.7	2,885
	2010	11.7	10.3-13.1	3,569
Other	2001	27.6	22.4-32.8	442
	2002	26.1	21.6-30.6	360
	2003	23.4	19.2-27.5	526
	2004	14.8	11.8-17.8	643
	2005	19.7	16.4-23.0	548
	2006	18.2	13.5-22.9	291
	2007	20.3	15.9-24.7	355
	2008	16.1	11.9-20.4	347
	2009	14.3	10.2-18.4	273
	2010	13.7	10.2-17.2	313

**Table A6: Prevalence of smoking in the home by school decile, 2001-2010**

<b>School decile group</b>	<b>Year</b>	<b>Smoking in the home %</b>	<b>95% CI</b>	<b>Total sample (n)</b>
Low decile	2001	39.9	37.5-42.2	5,101
	2002	39.2	36.8-41.6	4,465
	2003	41.5	39.2-43.7	5,403
	2004	32.6	29.9-35.4	6,181
	2005	35.5	32.8-38.2	4,925
	2006	37.4	34.3-40.4	4,645
	2007	31.6	28.3-34.9	3,698
	2008	30.8	28.3-33.4	4,973
	2009	28.2	24.4-32.0	3,473
	2010	27.3	24.6-30.0	5,250
Medium decile	2001	34.0	32.3-35.7	11,772
	2002	29.9	28.6-31.3	12,908
	2003	33.2	31.7-34.6	14,578
	2004	30.3	28.8-31.8	13,774
	2005	29.7	28.4-31.0	15,730
	2006	27.4	26.0-28.7	16,419
	2007	24.8	23.4-26.2	11,364
	2008	23.4	22.2-24.6	13,326
	2009	21.9	20.4-23.3	11,391
	2010	21.3	20.1-22.5	14,429
High decile	2001	23.2	21.8-24.7	11,916
	2002	18.9	17.7-20.1	10,731
	2003	20.8	19.0-22.5	11,983
	2004	20.6	19.2-22.0	11,674
	2005	18.7	17.5-19.8	11,909
	2006	16.6	15.4-17.8	11,526
	2007	16.1	14.8-17.4	10,675
	2008	14.7	13.5-15.8	12,290
	2009	13.8	12.8-14.9	10,698
	2010	13.2	12.2-14.2	12,677

## Appendix 2: District Health Board data

**Table A7: Smoking status, parental smoking and smoking in the home for all students by District Health Board, 1999-2010**

DHB	Year	Daily %	Regular %	Never smoked %	Parental smoking* %	Smoking in home† %	Total sample (n)
Northland	1999	17.0	29.2	26.7			1,147
	2000	18.5	31.1	27.9			1,325
	2001	16.9	28.1	28.4	47.4	36.5	1,288
	2002	14.6	24.9	30.2	45.0	33.7	1,044
	2003	15.9	25.9	32.1	49.2	37.6	1,200
	2004	14.2	23.2	35.9	53.0	33.9	1,241
	2005	13.3	20.1	40.3	51.2	35.7	1,165
	2006	12.1	19.1	44.5	53.6	35.7	1,482
	2007	10.4	16.4	48.2	51.3	30.5	585
	2008	9.1	14.8	52.6	51.5	28.2	1,396
	2009	7.4	14.8	50.9	53.3	33.8	797
	2010	6.1	10.4	55.3	48.6	27.9	1,188
Waitemata	1999	14.4	28.2	36.0			3,083
	2000	12.8	26.1	38.5			2,978
	2001	11.9	22.1	41.8	36.6	27.3	2,826
	2002	9.5	17.7	45.2	37.8	24.8	2,875
	2003	8.7	17.2	49.3	36.2	26.6	3,496
	2004	7.0	13.6	54.1	38.1	25.1	3,114
	2005	6.0	12.5	56.4	34.6	21.3	3,618
	2006	6.2	12.2	59.7	33.5	21.5	3,995
	2007	4.5	10.3	63.9	32.5	18.9	2,944
	2008	5.4	10.1	65.1	34.7	19.9	3,473
	2009	4.7	9.3	69.8	32.8	17.2	2,872
	2010	4.1	8.2	67.2	34.4	17.7	3,328
Auckland	1999	12.6	24.0	40.2			3,028
	2000	10.6	23.3	39.3			2,231
	2001	11.1	24.4	40.8	37.0	28.1	2,327
	2002	7.7	16.6	47.0	33.3	20.7	2,337
	2003	8.3	16.1	51.1	33.2	23.7	3,301
	2004	4.3	11.0	55.8	31.1	19.4	2,312
	2005	5.9	13.4	57.4	30.3	20.9	2,366
	2006	3.3	8.6	65.6	29.6	18.5	2,768
	2007	5.5	10.6	62.5	30.5	18.4	1,831
	2008	4.5	7.7	67.1	34.8	18.2	2,429
	2009	3.0	7.2	70.0	31.7	15.1	2,438
	2010	2.4	5.8	72.3	29.8	14.6	2,876

\* Students reporting that one or both parents smoke

† Students responded 'Yes' or 'Sometimes' to the question "Is smoking allowed in your home?"

NB: Total sample n = all students who gave age, gender, ethnicity and smoking status information.

<b>DHB</b>	<b>Year</b>	<b>Daily %</b>	<b>Regular %</b>	<b>Never %</b>	<b>Parental smoking* %</b>	<b>Smoking in home† %</b>	<b>Total sample (n)</b>
Counties Manukau	1999	17.2	27.2	37.7			2,311
	2000	13.2	24.5	38.7			2,567
	2001	12.0	21.3	42.3	41.6	29.8	2,784
	2002	14.2	24.0	41.6	42.0	28.6	2,618
	2003	12.3	19.2	51.5	38.4	27.6	3,100
	2004	9.5	16.2	52.4	40.7	24.9	3,487
	2005	8.8	16.0	53.0	41.1	26.0	3,018
	2006	9.0	14.6	53.6	41.9	26.5	2,800
	2007	8.1	12.6	56.0	44.4	22.0	1,799
	2008	8.1	12.0	60.2	38.3	21.2	3,631
	2009	5.8	11.0	65.2	36.4	18.5	3,196
	2010	6.2	9.9	63.3	39.7	19.9	3,926
Waikato	1999	13.9	27.0	28.7			2,786
	2000	15.6	29.8	30.6			2,784
	2001	15.3	28.1	33.0	43.2	33.2	2,613
	2002	14.2	25.6	35.4	42.3	28.9	2,982
	2003	13.2	23.0	39.5	41.4	30.8	3,432
	2004	10.3	18.2	45.6	42.3	27.8	3,181
	2005	8.6	17.6	48.2	42.0	28.0	2,693
	2006	8.2	14.0	55.0	40.8	26.2	3,048
	2007	8.6	14.8	56.3	44.8	25.8	1,711
	2008	8.9	14.2	56.9	44.8	25.1	2,278
	2009	5.6	10.7	61.2	40.9	21.4	2,006
	2010	5.0	9.0	68.2	38.4	19.5	2,576
Lakes	1999	21.1	31.9	22.7			797
	2000	26.2	35.9	21.9			657
	2001	19.9	29.3	27.7	51.9	37.3	782
	2002	21.0	30.8	27.9	50.2	35.7	756
	2003	18.5	31.3	31.0	50.7	33.6	693
	2004	12.1	20.8	41.1	46.7	30.6	679
	2005	11.7	20.9	39.8	48.6	30.5	708
	2006	15.4	22.3	42.0	49.9	30.0	945
	2007	7.5	15.0	46.0	45.9	25.8	548
	2008	8.2	13.5	52.8	47.0	27.8	525
	2009	6.0	11.6	57.6	44.4	23.5	465
	2010	6.5	10.9	56.7	47.3	23.2	1,111

\* Students reporting that one or both parents smoke

† Students responded 'Yes' or 'Sometimes' to the question "Is smoking allowed in your home?"

NB: Total sample n = all students who gave age, gender, ethnicity and smoking status information.

DHB	Year	Daily %	Regular %	Never %	Parental smoking* %	Smoking in home† %	Total sample (n)
Bay of Plenty	1999	16.5	30.1	29.6			1,282
	2000	19.7	30.5	26.9			1,186
	2001	12.6	23.1	36.2	42.7	29.2	1,608
	2002	12.9	23.2	34.7	45.6	29.8	1,683
	2003	16.8	24.9	35.5	45.8	31.8	1,170
	2004	12.8	21.3	41.1	44.9	32.1	1,960
	2005	11.2	19.2	44.4	43.7	29.3	2,133
	2006	9.5	14.1	49.7	42.7	24.3	1,993
	2007	8.5	13.0	56.7	41.4	23.7	1,396
	2008	7.7	13.0	58.9	36.5	20.1	1,622
	2009	7.4	12.3	62.3	39.0	20.0	1,622
Tairāwhiti	2010	6.8	11.9	62.4	41.9	19.7	1,884
	1999	25.7	39.7	22.3			292
	2000	20.1	28.7	21.1			279
	2001	20.3	29.7	30.3	57.7	40.3	360
	2002	21.2	30.4	22.6	53.7	41.4	358
	2003	19.6	28.6	35.5	56.3	39.9	276
	2004	19.4	24.7	37.8	53.5	31.1	308
	2005	10.5	20.5	37.1	54.2	28.6	420
	2006	12.9	19.9	44.4	53.6	29.2	356
	2007	9.7	18.9	49.4	48.6	25.0	413
	2008	9.2	15.8	47.7	53.2	27.9	436
Taranaki	2009	7.4	13.7	57.4	43.3	19.8	204
	2010	7.0	11.8	49.3	44.3	21.7	355
	1999	12.3	22.4	34.4			796
	2000	13.8	25.7	31.4			1,047
	2001	15.0	25.2	34.7	43.6	39.0	727
	2002	7.4	12.6	50.2	37.2	29.4	707
	2003	10.6	18.0	43.8	44.2	34.6	1,170
	2004	7.1	15.0	49.1	43.6	32.0	1,147
	2005	9.8	16.2	51.4	39.4	32.9	1,271
	2006	7.1	13.0	55.1	44.8	31.4	1,268
	2007	6.3	10.3	58.6	42.4	27.5	932
	2008	4.2	10.2	64.0	38.9	24.0	852
	2009	8.0	12.7	56.9	45.3	27.7	766
	2010	5.7	9.2	63.9	42.8	24.3	889

\* Students reporting that one or both parents smoke

† Students responded 'Yes' or 'Sometimes' to the question "Is smoking allowed in your home?"

NB: Total sample n = all students who gave age, gender, ethnicity and smoking status information.



<b>DHB</b>	<b>Year</b>	<b>Daily %</b>	<b>Regular %</b>	<b>Never %</b>	<b>Parental smoking* %</b>	<b>Smoking in home† %</b>	<b>Total sample (n)</b>
Hawke's Bay	1999	16.4	33.1	23.5			1,376
	2000	16.5	31.0	28.0			1,288
	2001	18.5	29.9	29.0	50.5	36.0	1,209
	2002	15.1	28.0	30.6	45.5	31.7	1,180
	2003	12.3	22.8	35.9	50.0	38.8	1,154
	2004	13.1	21.9	39.7	47.3	32.3	1,272
	2005	11.4	22.5	39.8	50.1	34.1	1,227
	2006	9.7	16.7	46.3	46.6	28.1	1,153
	2007	11.9	17.2	48.1	47.4	25.7	1,277
	2008	7.9	14.7	50.5	42.5	24.6	1,078
	2009	7.2	12.8	54.9	40.9	19.9	751
	2010	6.9	12.0	58.3	44.9	21.5	1,504
Whanganui	1999	18.8	30.2	28.4			602
	2000	19.5	31.7	28.6			441
	2001	10.9	20.5	36.4	37.5	30.2	341
	2002	13.1	19.7	35.5	47.1	36.4	259
	2003	14.7	23.1	38.4	46.1	38.1	756
	2004	14.9	24.4	37.1	51.5	34.0	377
	2005	9.7	16.8	51.8	39.7	32.3	554
	2006	17.6	23.4	45.3	50.4	35.9	364
	2007	11.9	18.8	51.5	49.9	33.4	394
	2008	6.4	13.9	51.2	45.6	27.8	639
	2009	3.5	10.3	62.2	40.4	24.3	543
	2010	11.0	18.8	49.1	53.8	31.1	426
Mid Central	1999	16.0	28.0	31.7			1,391
	2000	14.5	24.3	34.6			1,384
	2001	13.2	24.1	33.8	46.9	35.0	1,148
	2002	10.7	19.8	38.2	41.7	27.6	1,220
	2003	13.0	22.0	37.5	45.2	33.9	1,382
	2004	9.9	20.0	43.7	41.8	28.0	1,301
	2005	11.7	20.8	44.3	46.0	32.1	1,503
	2006	13.7	22.3	42.9	52.7	36.1	1,013
	2007	8.0	13.1	55.6	42.8	25.0	1,269
	2008	10.5	16.3	54.0	44.1	25.7	1,139
	2009	7.7	13.1	58.1	45.0	24.7	740
	2010	5.5	9.3	64.3	40.0	20.7	1,232

\* Students reporting that one or both parents smoke

† Students responded 'Yes' or 'Sometimes' to the question "Is smoking allowed in your home?"

NB: Total sample n = all students who gave age, gender, ethnicity and smoking status information.

<b>DHB</b>	<b>Year</b>	<b>Daily %</b>	<b>Regular %</b>	<b>Never %</b>	<b>Parental smoking* %</b>	<b>Smoking in home† %</b>	<b>Total sample (n)</b>
Hutt Valley	1999	16.7	28.9	31.8			1,057
	2000	15.2	26.4	35.3			1,178
	2001	13.9	24.0	37.9	38.6	27.4	1,336
	2002	13.8	20.7	37.9	41.8	27.4	1,047
	2003	15.5	22.4	39.3	45.3	32.6	1,074
	2004	10.7	18.0	51.4	39.9	26.1	1,425
	2005	10.0	15.2	50.3	39.1	24.6	1,220
	2006	9.9	14.9	49.6	41.3	25.0	972
	2007	9.4	15.4	56.3	42.4	23.2	968
	2008	7.3	11.7	62.7	33.5	19.0	976
	2009	5.3	9.4	66.0	38.1	18.3	679
	2010	8.9	12.9	63.2	39.3	18.4	897
Capital & Coast	1999	13.9	24.0	34.2			1,205
	2000	12.7	24.6	38.5			1,855
	2001	12.8	23.5	38.5	34.9	27.4	1,749
	2002	9.8	18.2	43.4	33.5	22.9	2,026
	2003	11.9	19.8	43.4	39.0	27.6	1,905
	2004	9.0	17.4	50.3	37.0	25.2	1,967
	2005	7.5	13.5	54.9	34.2	20.8	2,417
	2006	6.8	12.8	59.9	33.7	18.9	2,171
	2007	6.4	12.6	60.5	32.0	17.1	1,911
	2008	5.3	10.4	66.6	29.3	16.3	2,488
	2009	4.2	7.8	71.9	27.6	14.2	1,888
	2010	3.8	6.9	71.8	30.7	14.3	1,881
Wairarapa	1999	18.8	33.3	27.2			393
	2000	16.7	31.6	30.2			490
	2001	16.3	31.6	28.8	48.6	41.7	393
	2002	16.5	27.3	33.0	37.4	30.5	370
	2003	13.3	19.7	36.6	46.1	36.6	483
	2004	13.4	22.5	35.5	46.9	31.9	521
	2005	10.8	18.3	46.4	43.4	28.6	591
	2006	6.2	16.4	46.1	45.5	30.5	421
	2007	10.1	16.7	47.3	41.2	26.6	395
	2008	11.6	21.6	40.0	43.8	28.0	190
	2009	5.0	10.1	57.5	45.0	25.4	358
	2010	6.0	10.9	58.6	42.7	20.5	348

\* Students reporting that one or both parents smoke

† Students responded 'Yes' or 'Sometimes' to the question "Is smoking allowed in your home?"

NB: Total sample n = all students who gave age, gender, ethnicity and smoking status information.

<b>DHB</b>	<b>Year</b>	<b>Daily %</b>	<b>Regular %</b>	<b>Never %</b>	<b>Parental smoking*</b> %	<b>Smoking in home†</b> %	<b>Total sample (n)</b>
Nelson Marlborough	1999	13.9	25.9	33.4			1,244
	2000	15.1	28.3	32.7			1,137
	2001	10.5	24.0	37.3	35.0	26.2	1,145
	2002	9.7	19.8	39.8	35.4	22.9	1,355
	2003	8.9	17.7	42.3	37.4	26.0	1,552
	2004	8.1	14.5	52.0	35.4	20.8	1,082
	2005	10.3	18.5	48.2	37.5	22.8	1,089
	2006	7.6	14.1	51.9	35.6	22.6	1,410
	2007	6.1	11.3	58.2	35.6	19.9	1,116
	2008	6.3	12.5	62.6	35.6	16.9	1,247
	2009	7.1	13.8	61.7	35.7	19.0	1,041
	2010	4.1	8.9	69.7	33.7	15.1	1,327
West Coast	1999	22.1	35.4	26.2			263
	2000	16.1	32.9	18.7			155
	2001	17.7	27.4	25.1	50.3	41.9	299
	2002	11.9	18.1	35.0	40.2	36.7	243
	2003	13.4	22.9	32.9	51.2	43.1	292
	2004	12.0	19.4	39.1	48.6	31.1	299
	2005	7.1	15.6	49.1	43.3	33.9	224
	2006	8.8	13.7	49.8	47.4	38.4	329
	2007	7.9	12.8	54.3	48.8	31.3	164
	2008	3.2	9.6	58.4	44.6	31.7	125
	2009	5.9	9.8	60.8	48.0	24.5	102
	2010	10.4	20.8	40.9	51.7	28.9	154
Canterbury	1999	16.3	32.3	29.1			3,055
	2000	14.4	27.8	31.9			3,331
	2001	12.3	25.3	34.3	33.4	24.3	3,660
	2002	12.8	22.9	35.5	33.6	22.6	3,293
	2003	11.1	20.4	42.2	36.7	25.9	3,741
	2004	9.7	18.4	44.9	38.3	25.3	3,520
	2005	8.2	16.9	48.6	36.5	22.8	3,919
	2006	6.6	12.8	56.0	36.7	21.1	3,619
	2007	6.1	11.6	58.4	34.9	18.9	3,596
	2008	5.8	10.6	64.1	33.1	17.1	3,650
	2009	5.3	11.7	63.4	35.1	16.3	3,116
	2010	5.4	10.7	64.6	34.9	16.1	3,792

\* Students reporting that one or both parents smoke

† Students responded 'Yes' or 'Sometimes' to the question "Is smoking allowed in your home?"

NB: Total sample n = all students who gave age, gender, ethnicity and smoking status information.

DHB	Year	Daily %	Regular %	Never %	Parental smoking* %	Smoking in home† %	Total sample (n)
South Canterbury	1999	13.7	27.1	27.6			424
	2000	16.2	27.3	30.6			556
	2001	12.0	25.0	38.7	38.0	33.4	517
	2002	13.6	23.5	35.2	37.4	26.6	514
	2003	12.8	20.4	39.3	39.6	31.3	603
	2004	10.4	17.3	44.1	42.3	29.0	565
	2005	7.3	14.2	50.0	36.8	29.5	562
	2006	5.8	13.7	54.7	42.8	26.9	446
	2007	7.4	12.1	61.8	40.4	24.5	487
	2008	5.7	10.9	64.1	37.0	19.3	368
	2009	3.3	9.4	65.4	38.4	23.0	456
	2010	5.5	10.1	66.7	36.9	21.9	456
Otago	1999	15.8	30.5	29.6			1,621
	2000	18.1	33.6	29.2			1,731
	2001	12.5	23.8	33.3	34.6	29.0	1,686
	2002	12.9	24.5	36.1	35.6	25.9	1,607
	2003	12.5	21.5	39.3	39.7	29.9	1,473
	2004	9.2	16.5	43.0	40.2	27.1	1,472
	2005	10.3	18.4	46.1	39.8	29.0	1,450
	2006	8.1	13.3	54.1	38.8	23.0	1,440
	2007	6.7	12.0	58.4	38.2	23.1	1,460
	2008	5.1	11.4	61.8	38.3	21.6	1,493
	2009	6.7	13.0	63.9	39.5	20.0	1,120
	2010	5.2	10.6	65.0	36.8	18.5	1,677
Southland	1999	16.7	31.9	23.9			879
	2000	18.2	32.1	29.6			730
	2001	14.7	23.5	31.0	45.5	43.8	600
	2002	16.2	26.8	34.4	42.8	37.5	811
	2003	18.0	26.4	32.5	46.5	39.7	674
	2004	11.6	19.8	40.2	45.2	34.6	691
	2005	12.9	22.6	39.9	46.1	38.3	611
	2006	9.6	17.2	46.0	38.2	27.8	848
	2007	8.3	13.8	51.9	37.8	21.9	782
	2008	9.8	14.5	56.0	38.4	23.6	837
	2009	10.0	16.3	55.8	37.9	25.0	602
	2010	12.3	20.7	49.5	42.8	25.2	778

\* Students reporting that one or both parents smoke

† Students responded 'Yes' or 'Sometimes' to the question "Is smoking allowed in your home?"

NB: Total sample n = all students who gave age, gender, ethnicity and smoking status information.

**Table A8: Odds ratios for daily smoking by DHB, 2006 to 2010**

<b>DHB</b>	<b>OR</b>	<b>95% CI</b>	<b>p-value</b>
Northland	0.43	0.32-0.58	<0.001
Waitemata	0.60	0.48-0.75	<0.001
Auckland	0.59	0.43-0.82	0.002
Counties Manukau	0.65	0.54-0.79	<0.001
Waikato	0.64	0.51-0.80	<0.001
Lakes	0.38	0.28-0.52	<0.001
Bay of Plenty	0.65	0.51-0.83	0.001
Tairāwhiti	0.42	0.24-0.73	0.001
Taranaki	0.77	0.54-1.11	0.161
Hawke's Bay	0.60	0.45-0.80	0.001
Whanganui	0.53	0.35-0.81	0.003
Mid Central	0.41	0.30-0.56	<0.001
Hutt Valley	0.88	0.63-1.22	0.429
Capital & Coast	0.56	0.42-0.76	<0.001
Wairarapa	0.95	0.52-1.75	0.869
Nelson Marlborough	0.51	0.36-0.72	<0.001
West Coast	1.06	0.54-2.06	0.872
Canterbury	0.82	0.67-1.00	0.049
South Canterbury	0.86	0.49-1.53	0.615
Otago	0.61	0.45-0.81	0.001
Southland	1.37	0.99-1.90	0.054

Odds ratios were adjusted for age, sex and ethnicity

**Table A9: Odds ratios for regular smoking by DHB, 2006 to 2010**

<b>DHB</b>	<b>OR</b>	<b>95% CI</b>	<b>p-value</b>
Northland	0.45	0.35-0.57	<0.001
Waitemata	0.61	0.52-0.72	<0.001
Auckland	0.56	0.45-0.69	<0.001
Counties Manukau	0.63	0.54-0.74	<0.001
Waikato	0.65	0.54-0.77	<0.001
Lakes	0.43	0.33-0.55	<0.001
Bay of Plenty	0.79	0.65-0.96	0.019
Tairāwhiti	0.47	0.30-0.73	0.001
Taranaki	0.65	0.49-0.87	0.003
Hawke's Bay	0.60	0.48-0.76	<0.001
Whanganui	0.63	0.43-0.91	0.014
Mid Central	0.38	0.30-0.49	<0.001
Hutt Valley	0.83	0.63-1.10	0.190
Capital & Coast	0.53	0.42-0.66	<0.001
Wairarapa	0.57	0.36-0.89	0.013
Nelson Marlborough	0.59	0.46-0.76	<0.001
West Coast	1.58	0.94-2.64	0.080
Canterbury	0.82	0.71-0.95	0.008
South Canterbury	0.65	0.42-1.00	0.047
Otago	0.75	0.60-0.93	0.010
Southland	1.30	1.01-1.69	0.042

Odds ratios were adjusted for age, sex and ethnicity

**Table A10: Odds ratios for having never smoked by DHB, 2006 to 2010**

<b>DHB</b>	<b>OR</b>	<b>95% CI</b>	<b>p-value</b>
Northland	1.67	1.42-1.97	<0.001
Waitemata	1.48	1.33-1.63	<0.001
Auckland	1.61	1.43-1.82	<0.001
Counties Manukau	1.55	1.40-1.73	<0.001
Waikato	1.72	1.53-1.94	<0.001
Lakes	1.87	1.55-2.26	<0.001
Bay of Plenty	1.86	1.62-2.13	<0.001
Tairāwhiti	1.42	1.03-1.95	0.033
Taranaki	1.50	1.25-1.80	<0.001
Hawke's Bay	1.83	1.55-2.17	<0.001
Whanganui	1.31	0.96-1.77	0.085
Mid Central	2.35	1.96-2.82	<0.001
Hutt Valley	1.82	1.49-2.21	<0.001
Capital & Coast	1.69	1.47-1.95	<0.001
Wairarapa	1.79	1.33-2.41	<0.001
Nelson Marlborough	2.16	1.84-2.54	<0.001
West Coast	0.70	0.47-1.06	0.093
Canterbury	1.44	1.30-1.58	<0.001
South Canterbury	1.70	1.28-2.25	<0.001
Otago	1.63	1.40-1.89	<0.001
Southland	1.16	0.95-1.42	0.137

Odds ratios were adjusted for age, sex and ethnicity

### Appendix 3: 2010 ASH Year 10 Snapshot Survey questionnaire

Date \_\_\_\_\_

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#### YEAR 10 SNAPSHOT 2010

**READ INSTRUCTIONS IN BOLD - TICK THE BOX THAT SUITS YOUR ANSWER BEST. ANSWER ALL QUESTIONS.  
SHADED BOXES = CAN TICK MORE THAN 1 BOX**

<b>01</b>	Are you...	<input type="checkbox"/> <sub>1</sub> Female	<input type="checkbox"/> <sub>2</sub> Male
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<b>02</b>	How old are you?	<b>PLEASE TICK ONE BOX ONLY</b>		
<input type="checkbox"/> <sub>1</sub> 12 years old or younger	<input type="checkbox"/> <sub>2</sub> 13 years old	<input type="checkbox"/> <sub>3</sub> 14 years old		
<input type="checkbox"/> <sub>4</sub> 15 years old	<input type="checkbox"/> <sub>5</sub> 16 years old	<input type="checkbox"/> <sub>6</sub> 17 years old or older		

<b>03</b>	Which ethnic group or groups do you belong to?	<b>PLEASE TICK ALL BOXES THAT APPLY</b>			
<input type="checkbox"/> <sub>01</sub> New Zealand European	<input type="checkbox"/> <sub>07</sub> Māori	<input type="checkbox"/> <sub>03</sub> Samoan	<input type="checkbox"/> <sub>02</sub> Cook Island Māori		
<input type="checkbox"/> <sub>05</sub> Tongan	<input type="checkbox"/> <sub>06</sub> Niuean	<input type="checkbox"/> <sub>07</sub> Other Pacific Island	<input type="checkbox"/> <sub>08</sub> Chinese		
<input type="checkbox"/> <sub>09</sub> Indian	<input type="checkbox"/> <sub>10</sub> Other Asian	<input type="checkbox"/> <sub>11</sub> Other (Please write in) _____			

<b>04</b>	Have you <b>ever</b> smoked a cigarette, even just a few puffs?	<input type="checkbox"/> <sub>1</sub> Yes	<input type="checkbox"/> <sub>2</sub> No
-----------	-----------------------------------------------------------------	-------------------------------------------	------------------------------------------

<b>05</b>	How old were you when you first tried a cigarette? <b>WRITE AGE FIRST TRIED A CIGARETTE HERE:</b> _____ Years
<input type="checkbox"/> <sub>1</sub> I have never tried smoking a cigarette	

<b>06</b>	How many cigarettes have you smoked in your entire life?	<b>PLEASE TICK ONE BOX ONLY</b>	
<input type="checkbox"/> <sub>1</sub> None	<input type="checkbox"/> <sub>2</sub> 1 to 10 cigarettes (includes just having a few puffs)		
<input type="checkbox"/> <sub>3</sub> 11 to 100 cigarettes	<input type="checkbox"/> <sub>4</sub> 100 or more cigarettes		

<b>07</b>	How often do you smoke <b>now</b> ?	<b>PLEASE TICK ONE BOX ONLY</b>		
<input type="checkbox"/> <sub>1</sub> I have never smoked/I am not a smoker now		<input type="checkbox"/> <sub>2</sub> At least once a day		
<input type="checkbox"/> <sub>3</sub> At least once a week	<input type="checkbox"/> <sub>4</sub> At least once a month	<input type="checkbox"/> <sub>5</sub> Less often than once a month		

<b>08</b>	During the past year (12 months), have you ever tried to stop smoking cigarettes?	<b>PLEASE TICK ONE BOX ONLY</b>		
<input type="checkbox"/> <sub>1</sub> I have never smoked cigarettes	<input type="checkbox"/> <sub>2</sub> I did not smoke during the past year	<input type="checkbox"/> <sub>3</sub> Yes, I have tried to stop smoking cigarettes	<input type="checkbox"/> <sub>4</sub> No, I have not tried to stop smoking	

<b>09</b>	During the past 30 days (one month) how did you <b>usually</b> get your own cigarettes?	<b>PLEASE TICK ONE BOX ONLY</b>		
<input type="checkbox"/> <sub>1</sub> I have never smoked/I am not a smoker now	<input type="checkbox"/> <sub>2</sub> I bought them from a shop	<input type="checkbox"/> <sub>3</sub> I got them from friends		
<input type="checkbox"/> <sub>4</sub> I got them from my parents or caregivers	<input type="checkbox"/> <sub>5</sub> I got them some other way			

<b>10</b>	Do you <b>usually</b> smoke "ready made" or "roll your own" cigarettes?	<b>PLEASE TICK ONE BOX ONLY</b>		
<input type="checkbox"/> <sub>1</sub> I have never smoked/I am not a smoker now	<input type="checkbox"/> <sub>2</sub> Ready made	<input type="checkbox"/> <sub>3</sub> Roll your own	<input type="checkbox"/> <sub>4</sub> Other	

**PLEASE TURN OVER THE PAGE**



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<b>11</b>	<b>If one of your best friends offered you a cigarette, would you smoke it?</b>	<b>PLEASE TICK ONE BOX ONLY</b>		
	<input type="checkbox"/> <sub>1</sub> Definitely not	<input type="checkbox"/> <sub>2</sub> Probably not	<input type="checkbox"/> <sub>3</sub> Probably yes	<input type="checkbox"/> <sub>4</sub> Definitely yes

<b>12</b>	<b>At any time during the next year (12 months) do you think you will smoke a cigarette?</b>	<b>PLEASE TICK ONE BOX ONLY</b>		
	<input type="checkbox"/> <sub>1</sub> Definitely not	<input type="checkbox"/> <sub>2</sub> Probably not	<input type="checkbox"/> <sub>3</sub> Probably yes	<input type="checkbox"/> <sub>4</sub> Definitely yes

<b>13</b>	<b>Which of the following people smoke?</b>	<b>PLEASE TICK ALL BOXES THAT APPLY</b>		
	<input type="checkbox"/> <sub>1</sub> Mother	<input type="checkbox"/> <sub>2</sub> Father	<input type="checkbox"/> <sub>3</sub> Older brother or sister	
	<input type="checkbox"/> <sub>4</sub> Best friend	<input type="checkbox"/> <sub>5</sub> Other close friends	<input type="checkbox"/> <sub>6</sub> None of these	

<b>14</b>	<b>Do people smoke inside your home?</b>	<b>PLEASE TICK ONE BOX ONLY</b>		
	<input type="checkbox"/> <sub>1</sub> Yes	<input type="checkbox"/> <sub>2</sub> No	<input type="checkbox"/> <sub>3</sub> Sometimes	

<b>15</b>	<b>During the past 7 days, on how many days have people smoked around you in your home?</b>	<b>PLEASE TICK ONE BOX ONLY</b>			
	<input type="checkbox"/> <sub>1</sub> 0 days	<input type="checkbox"/> <sub>2</sub> 1 to 2 days	<input type="checkbox"/> <sub>3</sub> 3 to 4 days	<input type="checkbox"/> <sub>4</sub> 5 to 6 days	<input type="checkbox"/> <sub>5</sub> 7 days

<b>16</b>	<b>During the past 7 days, did anyone smoke in your presence while you were travelling in cars or vans?</b>	<b>PLEASE TICK ONE BOX ONLY</b>		
	<input type="checkbox"/> <sub>1</sub> Yes	<input type="checkbox"/> <sub>2</sub> No	<input type="checkbox"/> <sub>3</sub> Not sure/Don't know	

<b>17</b>	<b>For each of the statements listed below, please indicate whether you agree or disagree with them</b>	<b>PLEASE ANSWER EVERY QUESTION Tick one box on each line</b>		
		<b>Agree</b>	<b>Disagree</b>	<b>Don't know</b>
a)	Smoking should be banned in all outdoor places where young people go...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
b)	The number of places allowed to sell cigarettes and tobacco should be reduced to make them less easily available...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
c)	Tobacco companies should not be allowed to promote cigarettes and tobacco by having different symbols, phrases, names or colours on the packaging...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
d)	There should be complete bans on displays of cigarettes and tobacco inside shops...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
e)	Tax on cigarettes and tobacco should be increased and all the extra money used to help smokers wanting to quit...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
f)	If cigarettes and tobacco were not displayed in shops, young people would be less likely to start smoking...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
g)	Cigarettes and tobacco should be made more expensive so that children and young people can't afford to buy them ...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
h)	Cigarettes and tobacco should not be sold in New Zealand in 10 years time	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

<b>18</b>	<b>Which of the following things help you to be smokefree?</b>	<b>PLEASE TICK ALL BOXES THAT APPLY</b>			
	<input type="checkbox"/> <sub>1</sub> Health reasons	<input type="checkbox"/> <sub>2</sub> Pictures on cigarette packets	<input type="checkbox"/> <sub>3</sub> Price of tobacco	<input type="checkbox"/> <sub>4</sub> Friend/s are smokefree	
	<input type="checkbox"/> <sub>5</sub> Advice from friends or family		<input type="checkbox"/> <sub>6</sub> Advice from a doctor, nurse or other health professional		
	<input type="checkbox"/> <sub>7</sub> Information about smoking on TV/ magazines/radio/online		<input type="checkbox"/> <sub>8</sub> Information about smoking I learned at school		
	<input type="checkbox"/> <sub>9</sub> Smokefree/Smoking Not Our Future/Auahi Kore/Quitline ads or messages		<input type="checkbox"/> <sub>10</sub> Playing sport		
	<input type="checkbox"/> <sub>11</sub> None of these		<input type="checkbox"/> <sub>12</sub> Another reason (please write).....		

THANK YOU VERY MUCH FOR TAKING PART IN THIS SURVEY!

