

Report of 1999-2003 National Year 10 Smoking Surveys

Prepared for ASH

by

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Acknowledgements

Action on Smoking and Health (ASH) managed data collection of the annual national Year 10 smoking surveys analysed in this report. Research Solutions processed the data. The Ministry of Health provided funds to carry out the national Year 10 smoking surveys. Dr Murray Laugesen provided helpful suggestions and advice. Teachers and students from many NZ schools freely gave their time and information during data collection.

Summary

Objectives

1. Investigate trends in adolescent smoking prevalence during 1999-2003, and determine whether trends have been similar in all ethnic groups and in all District Health Board (DHB) regions
2. Examine variation in adolescent smoking prevalence between DHB regions, and identify any contributing factors.

Methods

Annual national surveys of Year 10 students who answered an anonymous self-administered questionnaire in November during 1999-2003 (n=149,972).

Results

- Daily smoking prevalence declined more in boys (from 14.1% in 1999 to 9.9% in 2003, a 31% relative decrease) than in girls (from 17.1% in 1999 to 14.2% in 2003, a 17% relative decrease).
- Trends in daily smoking varied by ethnicity, with the relative change: among girls being Maori -5%, Pacific -26%, and Asian and European each -24%; and among boys, Maori -17%, Pacific -24%, Asian -18%, and European -39%. These trends indicate that the gap in daily smoking prevalence has increased between Maori and Pacific students compared with European during 1999-2003.
- Daily smoking declined only among students who lived in houses where smoking was not allowed (relative change -23% (95% CI: -28%, -18%) from 2001 to 2003), adjusting for age, sex and ethnicity; whereas the change in daily smoking among students living in smoky houses was 0% (95% CI: -5%, 5%).
- Trends in daily smoking prevalence during 1999-2003 varied between DHB regions, with declines being greatest in urban areas, while some DHB regions showed no decline.
- Daily smoking prevalence varied more than 2-fold, from 8.9% up to 20.4%, between DHB regions. 78% of the regional variation in student daily smoking was explained by variations in the percent of students with smoking parents, and 60% of the regional smoking variation by living in a smoky house.

- Ethnic differences in parental smoking explain about half of the increased prevalence of daily smoking among Maori and Pacific students compared with Pakeha.

Conclusions

Ethnic differences in adolescent daily smoking have increased during 1999-2003.

Parental smoking and related factors explain much of the regional variation in daily smoking prevalence, and much of the ethnic variation in daily smoking. Strategies aimed at decreasing parental smoking are urgently needed to close the gaps.

Outline of Document

Data are reported from the national Year 10 surveys carried out during 1999-2003. The data analyses are in two sections:

- Time trends during 1999-2003 survey comparing changes in smoking prevalence over the 5 years, by sex, ethnicity, and district health board region.
- Regional variations during the last 3 years (2001-2003) and possible factors explaining this variation.

The focus of this report is on daily smoking, \geq monthly smoking (ie. daily + weekly + monthly), and 'never smoked', as these 3 groups represent either the majority of heavy student smokers or those who have never taken up smoking, and give a better picture of trends. The group who smoked less than monthly (described as 'less often' in the tables) has very similar smoking behaviour to that described as 'previous smokers'; hence, these groups are only given limited attention in this report.

Statistical Methods

The preliminary data analyses in this report were carried out using SAS (Version 8.2). This software currently does not correct for design effects arising from clustered sampling by school when analysing categorical outcomes. If present, the design effect will result in under-estimation of standard errors, so that some false positive significant differences between comparison groups may sometimes be observed. Evaluation of the design effect using Epiinfo showed that the design effect had a minimal effect on the size of standard errors, partly because of the large sample size. The influence of the design effect on standard errors will be evaluated further as part of the final report for publication in a peer-reviewed scientific journal.

Relative or percentage changes (usually from 1999) in smoking behaviour were calculated using Mantel-Haenszel relative risks adjusted for confounders. These were calculated by multiplying the relative risk by 100 and then subtracting 100 (eg. a relative risk of 1.20 = a percentage change of 20%; a relative risk of 0.80 = a percentage change of -20%). These values facilitate comparisons in changes over time between subgroups (eg. sex, ethnicity or region). However, 95% confidence intervals for percentage change may not always be symmetrical (around the percentage change) because of their derivation from relative risks, which are constrained at the lower limit by 0.

Trends during 1999-2003

Sample Size by Year (Table 1)

Table 1 shows the number of questionnaires available for analysis, for each year, during 1999-2003. The number of students returning questionnaires in 2003 (33,661 provided by Research Solutions), was higher (by about 10%) than in previous years. The increase in 2003 was spread throughout the country, and was mainly due to schools surveyed intermittently in previous years agreeing to take part in 2003, rather than due to a number of new schools agreeing for the first time to be surveyed. After excluding questionnaires with missing information on sex, ethnicity and cigarette smoking status, information from 149,972 students were available for analysis covering the 5 year period of 1999-2003. In ethnic comparisons, 'Other' students have been combined with European.

Trends by Sex (Tables 2 & 3, Figures 1 & 2)

Table 2 compares smoking categories in both surveys by sex. In girls, daily, weekly, monthly and \geq monthly smoking significantly decreased from 1999 to 2003, after adjusting for age and ethnicity. Along with this change, the proportion of female students who have never smoked increased from 29.9% in 1999 to 39.1% in 2003. A similar pattern was seen in boys, among whom daily smoking decreased from 14.1% in 1999 to 9.9% in 2003, while the proportion who never smoked increased from 33.3% in 1999 to 46.0% in 2003.

Table 3 reports percentage changes in prevalence of daily, total \geq monthly and never smoking for 2000-2003 compared with 1999, by sex, adjusting for age and ethnicity. The 31% decline in daily smoking prevalence by boys (95% CI: -35%, -27%) was significantly greater than the 17% decline by girls (95% CI: -21%, -13%) since their confidence intervals do not overlap. The converse pattern was observed for the prevalence of never smoking, which increased more in boys (by 36%) than in girls (by 28%). These trends are shown graphically in Figures 1 and 2. Overall these results suggest that smoking prevalences are declining in both female and male students, but more so in the latter.

Trends by Ethnicity (Tables 4-6, & Figures 3-10)

Tables 4 and 5 show absolute levels and percentage changes compared to 1999, respectively, in smoking behaviour by ethnic group from 1999 to 2003. Figures 3-10 show relative risks for each of the last 4 years, compared with 1999 (=1.0), adjusted for age.

- Maori girls: small (5% relative) non-significant decline in daily smoking; significant 7% relative decline in \geq monthly smoking from 50.9% to 47.4%; no change in proportion of never smokers from 1999 to 2002, followed by 20% relative increase in never smoking in 2003. Long-term trend suggests possible decline in daily smoking prevalence, which if present, is much smaller than that occurring in other sex-ethnic subgroups. The 20% relative increase in never smokers in 2003 may be a chance fluctuation which needs confirmation by further surveys.
- Pacific girls: 26% relative decline ($p<0.05$) in daily smoking, 19% relative decline ($p<0.05$) in \geq monthly smoking from 33.3% to 28.5%, no change in proportion of never smokers, from 1999 to 2003. Data indicate significant progressive decline in prevalence of regular smokers, but no change in prevalence of never smokers.
- Asian girls: significant relative declines in both daily (24%) and \geq monthly (29%) smoking, along with a rise in proportion of never smokers (15% relative), indicate that their smoking has declined from 1999 to 2003. However, the increase in daily smoking since 2001 (eg. Figure 5) needs further monitoring as it may represent a long term trend reflecting acculturation to the causative smoking factors operating in New Zealand.
- European girls: significant relative declines in both daily (24%) and \geq monthly (29%) smoking, along with a rise in proportion of never smokers (35% relative), indicate that their smoking is declining progressively.
- Maori boys: significant relative declines in both daily (17% by 2003) and \geq monthly (19% by 2003) smoking, along with a rise in proportion of never smokers (37% relative by 2003), indicate that their smoking has declined since 1999. However, the trend in daily smoking prevalence may have plateaued and requires further monitoring (Figure 7).
- Pacific boys: 24% relative decline ($p<0.05$) in daily smoking from 16.6% to 12.5%, along with 16% relative decline in \geq monthly smoking, and significant 23% rise in

proportion of never smokers, from 1999 to 2003, indicate that their smoking has declined; but need further monitoring to determine whether the trend in daily smoking is continuing to decrease or not (Figure 8).

- Asian boys: non-significant 18% relative decline in daily smoking, 22% decline ($p < 0.05$) in \geq monthly smoking from 13.4% to 10.2%, and 15% rise ($p < 0.05$) in proportion of never smokers, during 5 year period. Long term trend shows increase in never smoking, but trend in daily smoking is unclear at this stage (Figure 9).
- European boys: significant 39% relative declines in daily smoking and 41% decline in \geq monthly smoking, along with a rise in proportion of never smokers (43% relative), indicate that their smoking has declined during 1999 to 2003.

Table 6 reports annual relative risks of daily smoking for Maori, Pacific and Asian students compared with European/other. During the period 1999-2003, because of the greater decline in the prevalence of daily smoking among European students, ethnic specific relative risks increased from 2.76 to 3.48 in Maori girls, and from 1.88 to 2.57 in Maori boys. Smaller increases in relative risk occurred in Pacific students, while relative risks in Asian boys converged towards 1.0, indicating that their difference from European boys has decreased over the 5 year period. Overall, these comparisons indicate that the gap in daily smoking prevalence has increased between Maori and Pacific students compared with European.

Auckland ethnic-specific trends (Tables 7 & 8).

Ethnic-specific trends in smoking prevalence were examined in Auckland (Tables 7 & 8) to see if the pattern for urban children was similar to that for the whole country. The trends in Auckland are similar to those for the whole country, indicating that the lack of a decline in daily smoking among Maori girls occurred in both urban and rural areas.

Trends by School SES Decile (Tables 9 & 10)

Students were categorised by the Ministry of Education school socio-economic (SES) decile. Overall, school SES decile was inversely related to the percentage decline in daily smoking and increase in never smoking, with prevalences of daily smoking and never smoking remaining unchanged during 1999-2003 for girls in (the lowest) SES deciles 1 and 2, after adjusting for age, sex and ethnicity.

Trends by Parental Smoking & Smoking in the House (Tables 11 & 12)

Information from students on parental smoking and smoking in the house were available for 2001-2003. During this 3-year period, there was no change ($p>0.05$) in the prevalence of either daily smoking or never smoking among students with both parents being smokers (Table 11) and among students where people smoked in their house (Table 12), after adjusting for age, sex and ethnicity. In contrast, declines in daily smoking and increases in never smoking occurred among students with one or both parents being a non-smoker, and among students who lived in houses where people did not smoke.

Trends by District Health Boards (Tables 13a-14c, 15, & Figures 11-31)

Annual absolute prevalences of daily smoking, smoking monthly or more often, and never smoking, for each of the 21 District Health Boards (DHBs), are shown in Tables 13a-13c; while relative changes for each year during 2000-2003, compared with 1999, are shown in Tables 14a-14c, for each DHB. Figures 11-31, show relative risks of daily smoking and never smoking, during 2000-2003, compared with 1999.

The summary results in Table 15 show the following findings:

1. The prevalence of *never smoking* **increased** significantly by 2003, compared with 1999, in all DHBs.
2. The above changes have been accompanied by **decreases** in the prevalence of *smoking monthly or more often* in all DHBs except for Northland and Lakes District.

Further monitoring may confirm a declining prevalence for smoking monthly or more often in Northland DHB, which had a significantly decreased prevalence in 2002 compared with 1999 (Table 13a).

3. The prevalence of *daily smoking* did **not change** significantly from 1999 to 2003 in the following DHBs: Northland, Waikato, Lakes District, Bay of Plenty, Tairāwhiti, Taranaki, Hutt Valley, South Canterbury and Southland. For all of these DHBs (except for Northland and Lakes District), there has been a concurrent decrease in smoking weekly or monthly combined, so that total smoking monthly or more often has decreased. Daily smoking decreased significantly in all other DHBs.

Further monitoring over the next couple of years may reveal a declining daily smoking prevalence: in Bay of Plenty DHB, which had significantly decreased relative risks of daily smoking in 2001 and 2002 compared with 1999 (Figure 17); in Lakes District DHB where the daily smoking prevalence has been trending down since 2000 (Table

13a); and in DHBs with smaller student samples such as Tairāwhiti, although the daily smoking prevalence appears to have plateaued since 2000 in this DHB (Table 13b).

Regional Variations

Contribution of Parental Smoking & Smoking in the House (Tables 16-17, Figures 32-33)

Regional variations, by DHB, in the prevalence of student daily smoking, parental smoking and smoking in the house, are shown in Table 16, and graphed in Figures 32 & 33, for 2001-2003 data combined. Regional variations in parental smoking explain 78% of the variation in daily student smoking, such that for each 1% increase in parental smoking there is an approximate 0.5% increase in student daily smoking (Figure 32). Similarly, smoking in the house explains 60% of the regional variation in student daily smoking (Figure 33). When both parental smoking and smoking in the house were included together as predictors (X-variables) of student daily smoking prevalence in a multiple regression analysis with student daily smoking as the dependent variable, only parental smoking was related to daily student smoking ($p < 0.0001$), indicating that the association between smoking in the house and prevalence of student smoking was explained by regional variations in parental smoking. This is to be expected given the close association between the two variables. Variations in other variables, such as pocket money and cinema watching, were unrelated to the regional variation in student daily smoking prevalence (data not shown). Parental smoking and smoking in the house are independent risk factors for daily smoking (1). However, regional variations in daily smoking prevalence are primarily explained by parental smoking, which is itself associated with smoking in the house (1).

Table 17 shows the effect of adjusting for ethnicity, parental smoking and smoking in the house, individually and collectively, on relative risks of daily smoking associated with DHB regions, compared with Auckland DHB (which has the lowest daily smoking prevalence). The regional relative risks are very similar after adjusting for ethnicity or parental smoking (except for Tairāwhiti), indicating that parental smoking explains as much, as ethnicity, of the increased relative risk of daily smoking in non-Auckland DHBs. After adjustment for ethnicity, parental smoking and smoking in the house, relative risks of daily smoking are no longer significantly increased in a number of DHBs – eg. Waitemata, Bay of Plenty, Taranaki, Wanganui, Mid-Central - compared with Auckland DHB.

Ethnic Variations

Contribution of Parental Smoking & Smoking in the House (Tables 18-19)

Table 18 shows the proportion of students with parents who smoke and who live in a house where there is smoking. Percentages for both variables are highest for Maori, followed by Pacific, European/Other, and Asian.

Table 19 shows the effect of adjusting for parental smoking and smoking in the house on relative risks of daily smoking associated with ethnicity. Ethnic differences in parental smoking explain about half of the increase in relative risk of daily smoking among Maori and Pacific students, compared with European. Strategies targeted at reducing parental smoking may help to reduce the smoking gap between Maori and Pakeha.

Reference

1. Scragg R, Laugesen M, Robinson E. Parental smoking and related behaviours influence adolescent smoking: results from the 2001 New Zealand national survey of 4th form students. *NZ Med J* 2003 (12 Dec); 116: U1187.

Table 1: Number of Year 10 students aged 14 and 15 years included in data analyses, after exclusions for missing information, by year of survey (1999-2003).

Questionnaire information	1999	2000	2001	2002	2003	All Years
Questionnaires returned	30,085	30,765*	30,120	30,096	33,661	154,727
Missing information on:						
Sex	84	93	91	90	95	453
Ethnicity	593	886	288	414	353	2534
Cigarette smoking	376	456	343	307	286	1768
Questionnaires analysed	29,032	29,330	29,398	29,285	32,927	149,972

* excluding 43 from Correspondence School

Table 2: Distribution of Year 10 students by smoking cigarette smoking category, during 1999-2003, by *sex*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
Girls					
<i>Smoker</i>					
Daily	17.1	16.3	15.2***	14.9***	14.2***
Weekly	8.1	7.6	6.7***	5.8***	5.5***
Monthly	7.2	7.5	6.5*	6.0***	5.2***
Less often	14.7	13.8*	14.8	11.5***	11.1***
Total \geq monthly	32.4	31.3	28.4***	26.6***	24.9***
<i>Non-smoker</i>					
Previous	23.1	23.4	22.5	26.2***	24.9***
Never smoked	29.9	31.5**	34.3	35.8***	39.1***
(n)	(14,564)	(14,471)	(14,987)	(14,936)	(16,575)
Boys					
<i>Smoker</i>					
Daily	14.1	14.0	11.6***	9.9***	9.9***
Weekly	5.2	5.0	4.6*	3.6***	3.2***
Monthly	5.4	5.3	4.8*	3.8***	3.4***
Less often	14.0	13.3	14.7	10.9***	9.0***
Total \geq monthly	24.7	24.4	21.1***	17.4***	16.4***
<i>Non-smoker</i>					
Previous	28.0	27.7	26.6**	30.6***	28.7
Never smoked	33.3	34.6*	37.6***	41.2***	46.0***
(n)	(14,468)	(14,559)	(14,411)	(14,349)	(16,352)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 1999, adjusted for age & ethnicity

Table 3: Percentage change in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2003, compared with 1999, adjusted for age and ethnicity, by *sex*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
Girls					
Daily	0	-4 (-9, 1)	-10 (-15, -6)	-13 (-17, -8)	-17 (-21, -13)
Total \geq monthly	0	-3 (-6, 0)	-12 (-15, -9)	-17 (-20, -15)	-22 (-25, -20)
Never smoked	0	5 (2, 9)	13 (10, 17)	19 (15, 23)	28 (25, 32)
Boys					
Daily	0	0 (-5, 6)	-18 (-23, -13)	-29 (-33, -24)	-31 (-35, -27)
Total \geq monthly	0	-1 (-5, 3)	-15 (-19, -11)	-29 (-32, -26)	-34 (-37, -31)
Never smoked	0	4 (0, 7)	14 (10, 17)	22 (19, 26)	36 (33, 40)

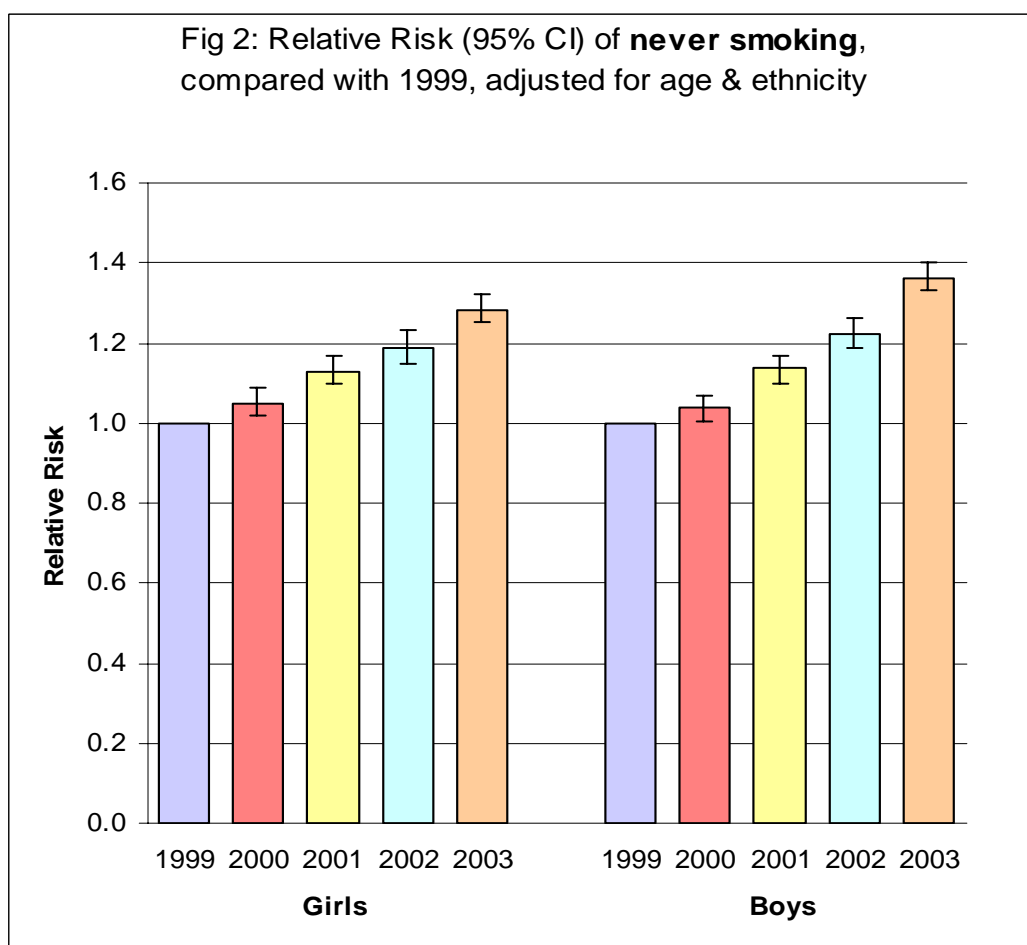
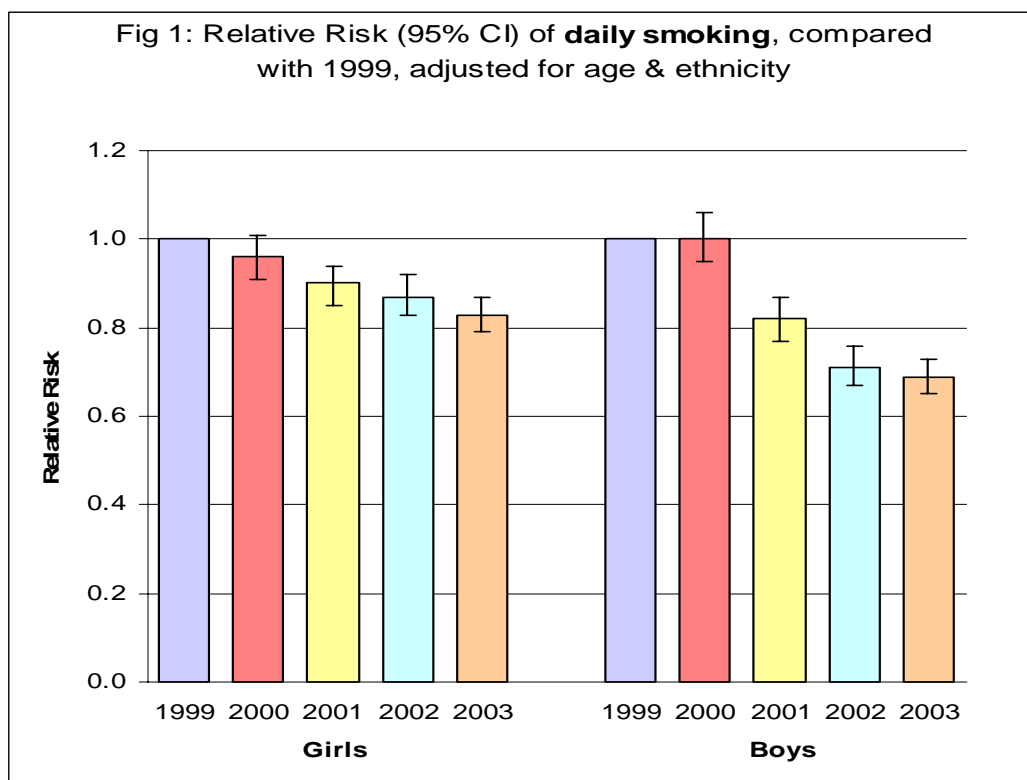


Table 4: Trends in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2003, by *sex and ethnicity*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
<i>Girls</i>					
<i>Maori</i>					
Daily	36.2	37.1	34.3	34.3	34.2
Total \geq monthly	50.9	51.1	47.5*	47.8*	47.4*
Never smoked	12.4	11.1	12.4	12.3	15.0**
(n)	(2448)	(2480)	(2574)	(2653)	(2934)
<i>Pacific</i>					
Daily	23.0	19.4	19.5	17.6**	18.1**
Total \geq monthly	33.3	31.2	29.4	28.5*	26.9**
Never smoked	31.2	33.1	31.8	30.2	32.2
(n)	(881)	(792)	(952)	(880)	(1168)
<i>Asian</i>					
Daily	5.9	5.1	3.2**	3.9*	4.5
Total \geq monthly	10.4	9.0	7.7**	7.3*	7.3**
Never smoked	64.4	66.2	71.9***	71.7***	74.1***
(n)	(1014)	(965)	(1176)	(1158)	(1531)
<i>European/Other</i>					
Daily	13.1	12.2	11.4***	10.8***	9.8***
Total \geq monthly	30.0	28.7	25.9***	23.2***	21.1***
Never smoked	30.6	33.0***	35.7***	38.2***	41.4***
(n)	(10221)	(10534)	(10285)	(10245)	(10942)
<i>Boys</i>					
<i>Maori</i>					
Daily	23.6	24.2	19.1***	16.8***	19.4***
Total \geq monthly	33.6	33.7	28.7***	24.9***	27.0***
Never smoked	21.4	21.9	24.9**	25.8***	29.4***
(n)	(2199)	(2208)	(2462)	(2241)	(2844)
<i>Pacific</i>					
Daily	16.6	16.8	14.3	10.8***	12.5*
Total \geq monthly	23.7	25.8	23.0	16.5***	19.7*
Never smoked	36.3	37.0	38.5	42.8**	44.7***
(n)	(873)	(892)	(9042)	(1010)	(1128)
<i>Asian</i>					
Daily	7.9	9.4	7.2	7.5	6.4
Total \geq monthly	13.4	14.6	11.4	11.2	10.2*
Never smoked	59.9	59.2	63.7	64.4*	69.1***
(n)	(1138)	(1112)	(999)	(1225)	(1645)
<i>European/Other</i>					
Daily	12.6	12.1	10.0***	8.6***	7.6***
Total \geq monthly	24.2	23.3	20.0***	16.6***	14.2***
Never smoked	32.7	34.5*	38.0***	41.6***	46.9***
(n)	(10258)	(10347)	(10046)	(9873)	(10735)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 1999, adjusted for age

Table 5: Percentage change in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2003, compared with 1999, adjusted for age, by *sex and ethnicity*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
<i>Girls</i>					
<i>Maori</i>					
Daily	0	3 (-5, 11)	-5 (-11, 3)	-4 (-11, 3)	-5 (-11, 2)
Total \geq monthly	0	1 (-5, 6)	-6 (-12, -1)	-6 (-11, 0)	-7 (-12, -1)
Never smoked	0	-11 (-23, 4)	0 (-14, 15)	-2 (-15, 14)	20 (5, 37)
<i>Pacific</i>					
Daily	0	-15 (-30, 2)	-15 (-29, 1)	-23 (-36, -8)	-26 (-34, -7)
Total \geq monthly	0	-6 (-18, 8)	-11 (-23, 1)	-14 (-25, -1)	-19 (-29, -7)
Never smoked	0	6 (-8, 21)	2 (-11, 17)	-3 (-16, 11)	3 (-10, 17)
<i>Asian</i>					
Daily	0	-14 (-40, 24)	-45 (-63, -19)	-34 (-55, -4)	-24 (-46, 7)
Total \geq monthly	0	-13 (-33, 15)	-26 (-43, -3)	-29 (-46, -7)	-29 (-45, -9)
Never smoked	0	3 (-3, 10)	12 (5, 18)	11 (5, 18)	15 (9, 22)
<i>European/Other</i>					
Daily	0	-6 (-13, 1)	-12 (-18, -5)	-16 (-22, -10)	-24 (-30, -18)
Total \geq monthly	0	-4 (-8, 1)	-13 (-17, -9)	-22 (-26, -19)	-29 (-33, -26)
Never smoked	0	8 (3, 12)	16 (12, 21)	24 (20, 29)	35 (30, 40)
<i>Boys</i>					
<i>Maori</i>					
Daily	0	3 (-7, 15)	-19 (-27, -9)	-28 (-36, -19)	-17 (-25, -7)
Total \geq monthly	0	1 (-7, 9)	-14 (-21, -6)	-25 (-32, -18)	-19 (-26, -12)
Never smoked	0	2 (-9, 14)	16 (5, 29)	20 (8, 33)	37 (24, 51)
<i>Pacific</i>					
Daily	0	1 (-18, 25)	-14 (-31, 8)	-34 (-47, -16)	-24 (-38, -6)
Total \geq monthly	0	9 (-8, 28)	-3 (-18, 15)	-29 (-41, -15)	-16 (-29, -1)
Never smoked	0	2 (-10, 15)	6 (-6, 19)	17 (4, 31)	23 (10, 37)
<i>Asian</i>					
Daily	0	24 (-5, 63)	-6 (-30, 27)	-4 (-27, 27)	-18 (-37, 8)
Total \geq monthly	0	13 (-8, 39)	-13 (-31, 10)	-16 (-32, 5)	-22 (-37, -5)
Never smoked	0	-2 (-9, 5)	6 (-1, 13)	7 (1, 14)	15 (8, 22)
<i>European/Other</i>					
Daily	0	-3 (-9, 5)	-19 (-25, -13)	-31 (-36, -25)	-39 (-44, -34)
Total \geq monthly	0	-3 (-7, 2)	-17 (-21, -12)	-31 (-35, -27)	-41 (-44, -37)
Never smoked	0	5 (1, 9)	16 (12, 20)	27 (22, 31)	43 (38, 48)

Fig 3: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Maori girls**

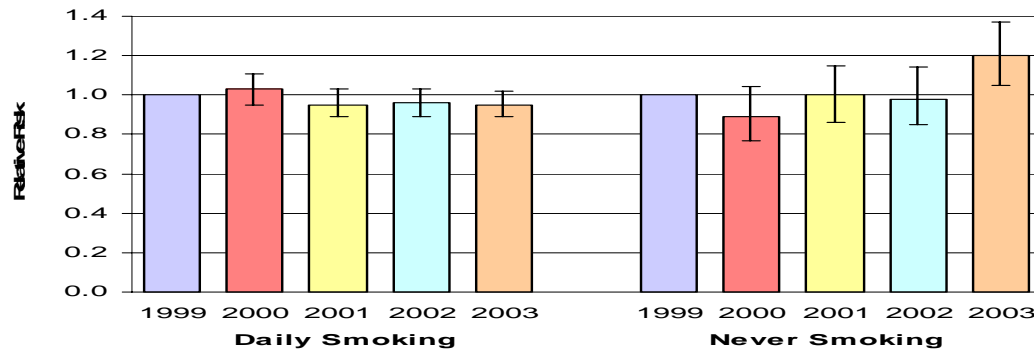


Fig 4: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Pacific girls**

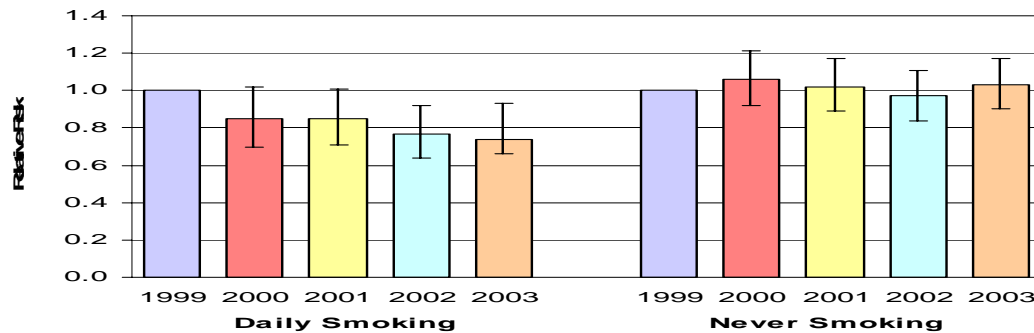


Fig 5: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Asian girls**

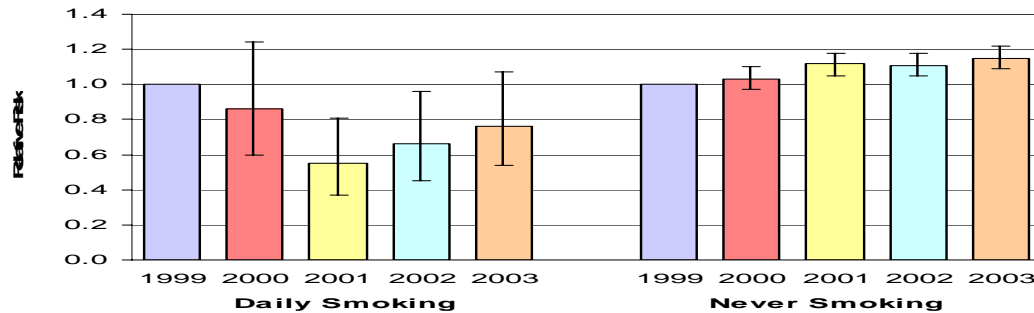


Fig 6: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **European girls**

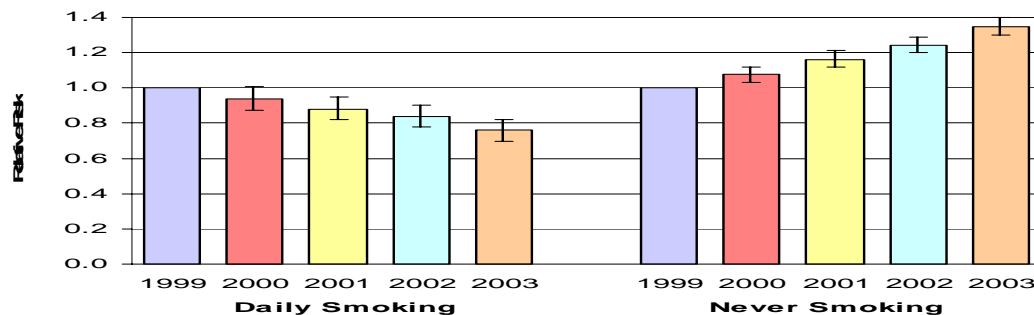


Fig 7: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Maori boys**

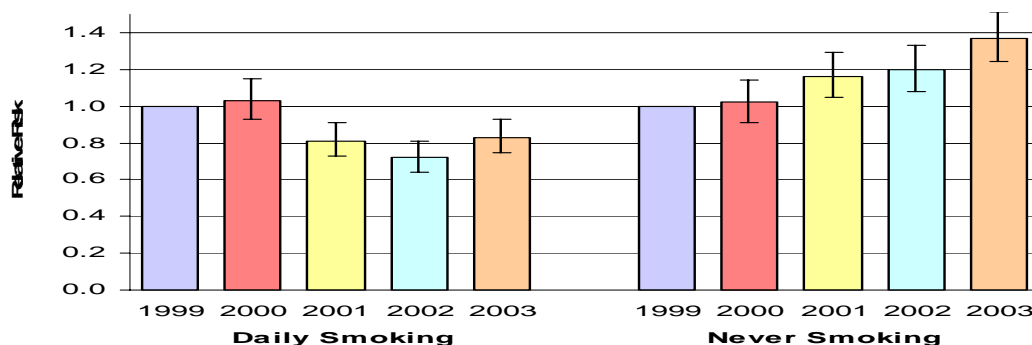


Fig 8: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Pacific boys**

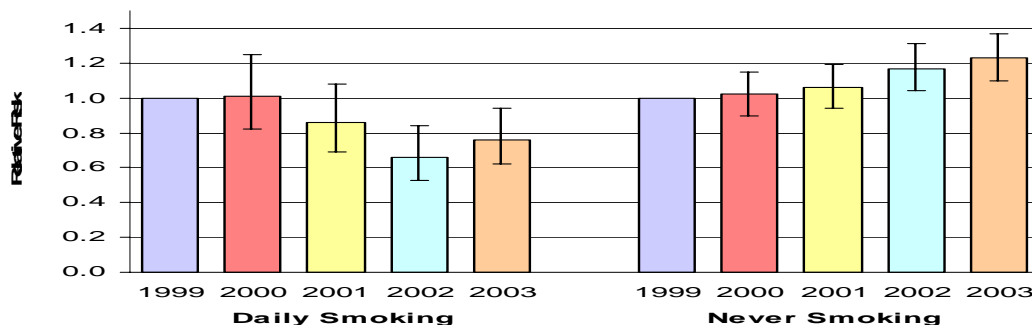


Fig 9: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Asian boys**

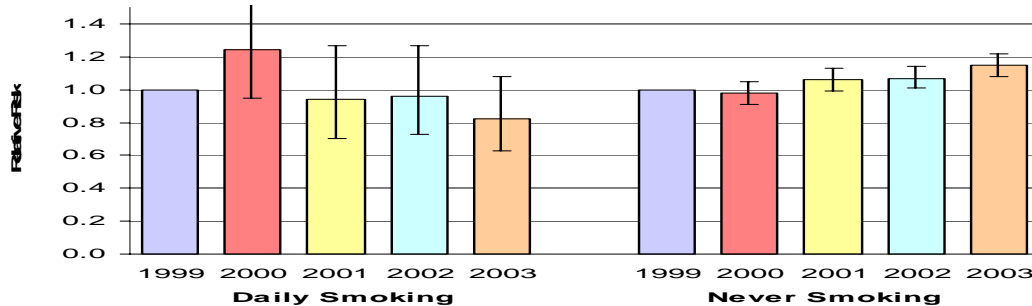


Fig 10: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **European boys**

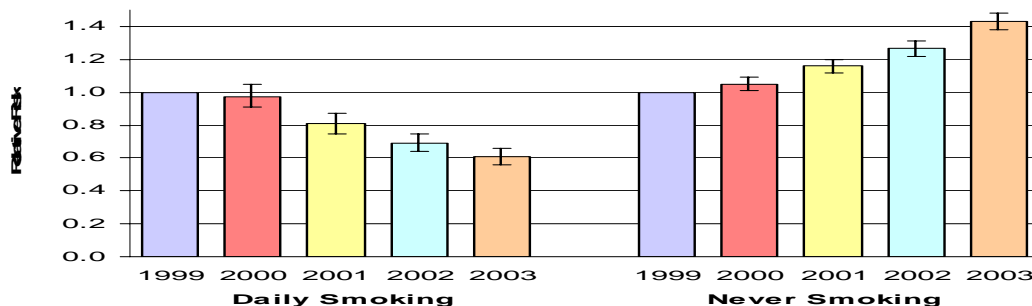


Table 6: Age adjusted relative risks of daily smoking associated with ethnicity, compared with European/Other students, by *sex and year of survey*.

Year	Relative Risk (95% CI)		
	Maori	Pacific	Asian
<i>Girls</i>			
1999	2.76 (2.56, 2.97)	1.75 (1.53, 1.99)	0.45 (0.35, 0.58)
2000	3.04 (2.83, 3.27)	1.59 (1.37, 1.85)	0.42 (0.32, 0.55)
2001	3.01 (2.79, 3.24)	1.69 (1.47, 1.95)	0.28 (0.20, 0.30)
2002	3.16 (2.93, 3.41)	1.62 (1.39, 1.88)	0.35 (0.26, 0.47)
2003	3.48 (3.22, 3.75)	1.84 (1.60, 2.10)	0.45 (0.36, 0.57)
<i>Boys</i>			
1999	1.88 (1.71, 2.05)	1.32 (1.13, 1.54)	0.62 (0.51, 0.76)
2000	1.98 (1.81, 2.17)	1.38 (1.18, 1.61)	0.78 (0.65, 0.94)
2001	1.90 (1.72, 2.10)	1.42 (1.20, 1.68)	0.72 (0.57, 0.91)
2002	1.96 (1.75, 2.19)	1.26 (1.05, 1.52)	0.86 (0.70, 1.06)
2003	2.57 (2.32, 2.84)	1.65 (1.39, 1.95)	0.84 (0.69, 1.02)

Table 7: Trends in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2003, by *sex and ethnicity* – *Auckland DHBs only*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
<i>Girls</i>					
<i>Maori</i>					
Daily	33.8	32.7	36.9	33.9	32.1
Total ≥ monthly	49.7	47.4	51.0	47.4	46.8
Never smoked	16.5	12.9	13.8	16.5	18.6
(n)	(497)	(428)	(528)	(534)	(585)
<i>Pacific</i>					
Daily	22.6	19.5	19.4	16.1**	16.0**
Total ≥ monthly	32.5	30.8	29.7	25.2**	25.8**
Never smoked	32.4	34.2	34.2	34.3	33.6
(n)	(584)	(503)	(602)	(540)	(752)
<i>Asian</i>					
Daily	4.3	3.3	2.6	2.8	2.1*
Total ≥ monthly	8.6	6.0	6.5	5.2*	4.0***
Never smoked	68.9	69.9	73.2	74.0*	79.4***
(n)	(655)	(581)	(697)	(669)	(963)
<i>European/Other</i>					
Daily	13.7	10.2***	10.9**	10.0***	8.3***
Total ≥ monthly	31.7	28.2**	26.7***	23.0***	19.5***
Never smoked	32.3	35.8*	36.8**	39.7***	46.6***
(n)	(2470)	(2383)	(2343)	(2191)	(2569)
<i>Boys</i>					
<i>Maori</i>					
Daily	24.2	21.7	15.4**	17.7*	20.4
Total ≥ monthly	33.9	31.0	25.6**	26.7*	26.8*
Never smoked	23.3	24.0	27.1	27.2	32.2**
(n)	(443)	(429)	(480)	(453)	(574)
<i>Pacific</i>					
Daily	17.7	15.0	13.0*	9.8***	13.0*
Total ≥ monthly	26.0	22.7	21.4	14.6***	19.7*
Never smoked	39.1	37.8	40.7	44.8	47.3**
(n)	(542)	(534)	(575)	(601)	(687)
<i>Asian</i>					
Daily	5.7	6.1	5.2	2.9*	4.2
Total ≥ monthly	10.2	10.6	8.6	5.8**	7.5
Never smoked	65.0	64.2	69.5	70.4*	75.3***
(n)	(708)	(606)	(558)	(692)	(1054)
<i>European/Other</i>					
Daily	12.5	10.7	7.8***	7.5***	6.2***
Total ≥ monthly	23.2	23.5	17.6***	16.1***	13.1***
Never smoked	35.7	36.3	41.7***	45.2***	50.8***
(n)	(2506)	(2312)	(2131)	(2150)	(2713)

* p<0.05, ** p<0.01, *** p<0.001, compared with 1999, adjusted for age

Table 8: Percentage change in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2003, compared with 1999, adjusted for age, by *sex and ethnicity – Auckland DHBs only*

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
<i>Girls</i>					
<i>Maori</i>					
Daily	0	3 (-19, 16)	10 (-7, 29)	5 (-15, 20)	-4 (-19, 14)
Total \geq monthly	0	-5 (-16, 9)	3 (-9, 16)	-4 (-15, 9)	-5 (-16, 7)
Never smoked	0	-22 (-43, 6)	-17 (-38, 11)	-1 (-25, 30)	12 (-14, 45)
<i>Pacific</i>					
Daily	0	-14 (-32, 9)	-14 (-31, 8)	-29 (-44, -9)	-29 (-43,-11)
Total \geq monthly	0	-5 (-21, 13)	-8 (-23, 9)	-22 (-36, -7)	-20 (-33, -6)
Never smoked	0	5 (-11, 25)	6 (-10, 24)	6 (-10, 25)	4 (-11, 21)
<i>Asian</i>					
Daily	0	-23 (-57, 36)	-40 (-66, 8)	-33 (-62, 18)	-51 (-72,-14)
Total \geq monthly	0	-29 (-53, 6)	-24 (-48, 10)	-38 (-59, -7)	-54 (-69,-31)
Never smoked	0	2 (-6, 9)	6 (-1, 14)	8 (1, 15)	15 (9, 23)
<i>European/Other</i>					
Daily	0	-26 (-36,-13)	-20 (-31, -7)	-27 (-37,-14)	-39 (-49,-29)
Total \geq monthly	0	-11 (-18, -3)	-16 (-23, -8)	-27 (-34,-20)	-38 (-44,-32)
Never smoked	0	11 (2, 20)	14 (5, 23)	22 (13, 32)	44 (34, 54)
<i>Boys</i>					
<i>Maori</i>					
Daily	0	-9 (-29, 15)	-35 (-50,-15)	-26 (-43,-4)	-15 (-32,8)
Total \geq monthly	0	-8 (-24, 11)	-24 (-38, -7)	-21 (-36,-4)	-20 (-34,-3)
Never smoked	0	3 (-19, 31)	16 (-8, 45)	16 (-8, 46)	37 (11, 68)
<i>Pacific</i>					
Daily	0	-16 (-36, 10)	-25 (-43, -1)	-43 (-58,-23)	-25 (-43,-3)
Total \geq monthly	0	-13 (-30, 7)	-17 (-33, 2)	-43 (-55,-27)	-24 (-389,-6)
Never smoked	0	-3 (-17, 13)	4 (-10, 20)	13 (-2, 30)	20 (5, 37)
<i>Asian</i>					
Daily	0	11 (-28, 71)	-5 (-40, 52)	-49 (-70,-13)	-26 (-51, 13)
Total \geq monthly	0	7 (-22, 47)	-12 (-28, 24)	-43 (-61,-17)	-25 (-45, 2)
Never smoked	0	-2 (-9, 6)	6 (-1, 15)	8 (1, 16)	16 (8, 23)
<i>European/Other</i>					
Daily	0	-13 (-26, 1)	-36 (-47,-24)	-39 (-49 -27)	-49 (-57,-39)
Total \geq monthly	0	2 (-8, 13)	-24 (-32,-14)	-30 (-38,-21)	-42 (-51,-35)
Never smoked	0	1 (-6, 9)	16 (8, 25)	26 (17, 35)	41 (32, 50)

Table 9: Trends in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2003, by *school SES decile*.

SES	Smoking Category	1999	2000	2001	2002	2003
		%	%	%	%	%
Girls						
1-2 (low)	Daily	28.1	26.7	27.5	29.7	29.4
	Total ≥ monthly	36.8	39.6	39.0	41.5*	38.5
	Never smoked	23.5	23.4	23.8	22.1	25.0
	(n)	(1225)	(1153)	(1245)	(1368)	(1375)
3-4	Daily	23.4	22.3	21.6*	20.0**	20.5***
	Total ≥ monthly	37.9	36.1	33.0***	31.2***	31.1***
	Never smoked	25.3	26.1	29.9***	29.6**	30.0***
	(n)	(2363)	(2418)	(2432)	(2347)	(2906)
5-6	Daily	17.9	19.3	17.0	16.1*	15.0***
	Total ≥ monthly	34.4	33.9	30.3***	28.2***	26.4***
	Never smoked	26.6	28.4*	31.0***	32.3***	35.4***
	(n)	(3850)	(3689)	(3708)	(3742)	(4131)
7-8	Daily	14.9	14.9	12.2**	12.8**	12.3**
	Total ≥ monthly	30.0	32.2	27.1**	25.2***	22.8***
	Never smoked	32.4	30.9	34.1	37.7***	39.9***
	(n)	(3640)	(3621)	(3404)	(3585)	(3529)
9-10	Daily	10.3	8.0**	8.9	7.1***	6.5***
	Total ≥ monthly	27.4	22.9***	22.1***	18.4***	17.0***
	Never smoked	36.5	40.7**	42.8***	45.9***	51.6***
	(n)	(3415)	(3821)	(4080)	(3807)	(4519)
Boys						
1-2 (low)	Daily	19.0	17.6	16.9	15.0**	16.9
	Total ≥ monthly	27.4	24.6	25.0	20.3***	23.5*
	Never smoked	34.0	32.0	35.8	38.5*	39.7**
	(n)	(1204)	(1066)	(1379)	(1361)	(1535)
3-4	Daily	15.4	16.1	12.9**	11.8***	13.3*
	Total ≥ monthly	24.0	24.8	20.7**	18.5***	19.0***
	Never smoked	32.4	33.3	38.9***	40.5***	43.0***
	(n)	(2324)	(2814)	(2600)	(2581)	(2226)
5-6	Daily	15.5	14.9	13.3*	10.7***	9.9***
	Total ≥ monthly	26.0	25.7	22.5**	19.2***	17.2***
	Never smoked	30.7	32.1	34.1**	37.8***	43.4***
	(n)	(3562)	(3234)	(3289)	(2898)	(4086)
7-8	Daily	13.6	12.6	10.1***	9.6***	9.2***
	Total ≥ monthly	25.0	23.3	20.0***	17.3***	16.2***
	Never smoked	32.3	35.2*	37.9***	41.3***	44.5***
	(n)	(3735)	(4123)	(3625)	(4299)	(4290)
9-10	Daily	10.9	12.3*	8.4***	6.1***	5.6***
	Total ≥ monthly	22.9	24.2	19.3***	13.8***	11.3***
	Never smoked	37.3	38.7	40.6**	45.4***	54.5***
	(n)	(3568)	(3259)	(3447)	(3194)	(3908)

* p<0.05, ** p<0.01, *** p<0.001, compared with 1999, adjusted for age & ethnicity

Table 10: Percentage change in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2003, compared with 1999, adjusted for age and ethnicity, by *sex and SES*.

SES	Smoking Category	1999	2000	2001	2002	2003
		%	%	%	%	%
Girls						
1-2 (low)	Daily	0	-7 (-18, 6)	-4 (-15, 9)	3 (-8, 16)	3 (-8, 16)
	Total ≥ monthly	0	6 (-4, 17)	5 (-5, 16)	10 (0, 21)	4 (-6, 14)
	Never smoked	0	3 (-10, 19)	1 (-12, 16)	-1 (-14, 13)	7 (-6, 22)
3-4	Daily	0	-7 (-16, 3)	-12 (-20, -2)	-14 (-23, -5)	-16 (-24, -7)
	Total ≥ monthly	0	-6 (-13, 1)	-15 (-21, -8)	-17 (-23,-10)	-20 (-25,-14)
	Never smoked	0	7 (-3, 17)	23 (12, 34)	15 (5, 26)	22 (12, 32)
5-6	Daily	0	7 (-2, 18)	-5 (-14, 5)	-12 (-20, -3)	-16 (-23, -7)
	Total ≥ monthly	0	-3 (-8, 4)	-12 (-17, -6)	-19 (-24,-13)	-22 (-27,-17)
	Never smoked	0	9 (1, 17)	16 (9, 25)	23 (15, 32)	31 (22, 39)
7-8	Daily	0	0 (10, 11)	-16 (-26, -6)	-14 (-23, -4)	-17 (-26, -6)
	Total ≥ monthly	0	7 (0, 14)	-9 (-16, -2)	-16 (-22,-10)	-23 (-29,-17)
	Never smoked	0	-4 (-11, 2)	5 (-2, 12)	16 (9, 23)	22 (14, 29)
9-10	Daily	0	-20 (-31, -8)	-11 (-22, 2)	-29 (-39, -8)	-37 (-45,-27)
	Total ≥ monthly	0	-15 (-22, -8)	-17 (-23,-10)	-31 (-37,-25)	-36 (-41,-30)
	Never smoked	0	10 (4, 16)	13 (7, 20)	23 (16, 29)	36 (30, 43)
Boys						
1-2 (low)	Daily	0	-8 (-22, 10)	-12 (-25, 4)	-21 (-33, -6)	-11 (-24, 4)
	Total ≥ monthly	0	-11 (-23, 2)	-9 (-20, 3)	-26 (-36,-15)	-14 (-25, -3)
	Never smoked	0	-4 (-14, 8)	6 (-4, 18)	14 (3, 26)	18 (7, 30)
3-4	Daily	0	5 (-8, 19)	-19 (-29, 7)	-23 (-33,-11)	-16 (-27, -3)
	Total ≥ monthly	0	3 (-6, 14)	-16 (-24, -6)	-22 (-30,-13)	-22 (-30,-13)
	Never smoked	0	3 (-5, 11)	24 (15, 33)	24 (15, 33)	34 (25, 45)
5-6	Daily	0	3 (-13, 9)	-13 (-23, -3)	-31 (-39,-21)	-37 (-44,-29)
	Total ≥ monthly	0	0 (-8, 8)	-13 (-20, -5)	-26 (-32,-19)	-34 (-39,-28)
	Never smoked	0	3 (-4, 11)	11 (4, 19)	22 (14, 31)	40 (32, 49)
7-8	Daily	0	-6 (-16, 6)	-25 (-34,-15)	-29 (-37,-20)	-33 (-41,-24)
	Total ≥ monthly	0	-6 (-13, 2)	-20 (-26,-12)	-30 (-36,-23)	-35 (-41,-30)
	Never smoked	0	8 (1, 15)	17 (10, 25)	27 (20, 35)	37 (30, 45)
9-10	Daily	0	15 (1, 31)	-22 (-32,-10)	-42 (-50,-31)	-47 (-55,-38)
	Total ≥ monthly	0	7 (-2, 17)	-15 (-23, -7)	-38 (-44,-31)	-48 (-54,-43)
	Never smoked	0	3 (-3, 9)	9 (3, 15)	19 (12, 26)	39 (32, 46)

Table 11: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2001-2003, by *parental smoking*.

Parental Smoking	Student Smoking	2001	2002	2003
		%	%	%
Both	Daily	31.6	31.4	29.7
	Total \geq monthly	44.1	42.1	41.0
	Never smoked	18.2	18.9	20.1
	(n)	(3977)	(3971)	(4656)
One	Daily	18.3	16.5	15.7
	Total \geq monthly	31.2	28.2	25.9
	Never smoked	26.1	28.8	33.2
	(n)	(7807)	(7331)	(8526)
Neither	Daily	7.2	6.5	6.2
	Total \geq monthly	17.5	15.1	13.4
	Never smoked	44.3	46.5	52.0
	(n)	(17487)	(17387)	(19300)
<i>Absolute change from 2001</i>				
Both	Daily	0	-0.2	-1.9*
	Total \geq monthly	0	-2.0*	-3.1**
	Never smoked	0	0.7	1.9*
One	Daily	0	-1.8**	-2.6***
	Total \geq monthly	0	-3.0***	-5.3***
	Never smoked	0	2.7***	7.1***
Neither	Daily	0	-0.7*	-1.0***
	Total \geq monthly	0	-2.4***	-4.1***
	Never smoked	0	2.2***	7.7***
<i>Percent change from 2001#</i>				
Both	Daily	0	-1 (-8, 5)	-7 (-13, -1)
	Total \geq monthly	0	-5 (-10, -1)	-8 (-12, -3)
	Never smoked	0	5 (-4, 15)	5 (-4, 15)
One	Daily	0	-10 (-16, 3)	-12 (-18, -6)
	Total \geq monthly	0	-10 (-14, -5)	-15 (-19, -11)
	Never smoked	0	10 (4, 15)	23 (17, 29)
Neither	Daily	0	-9 (-16, -2)	-15 (-21, -8)
	Total \geq monthly	0	-14 (-18, -10)	-23 (-27, -19)
	Never smoked	0	5 (3, 7)	16 (14, 19)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 2001, adjusted for age, sex and ethnicity

adjusted for age, sex and ethnicity

Table 12: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2001-2003, by whether *people smoke in the house*.

People Smoke in House	Student Smoking	2001	2002	2003
		%	%	%
Yes	Daily	24.2	24.2	24.4
	Total \geq monthly	37.5	35.7	36.1
	Never smoked	22.1	24.1	24.8
	(n)	(8848)	(7656)	(9619)
No	Daily	8.8	7.7	6.7
	Total \geq monthly	19.3	16.6	14.0
	Never smoked	41.9	44.3	50.2
	(n)	(20127)	(20549)	(22556)
<i>Absolute change from 2001</i>				
Yes	Daily	0	0	0.2
	Total \geq monthly	0	-1.8*	-1.4*
	Never smoked	0	2.0**	2.7***
No	Daily	0	-1.1***	-2.1***
	Total \geq monthly	0	-2.7***	-5.3***
	Never smoked	0	2.4***	8.3***
<i>Percent change from 2001#</i>				
Yes	Daily	0	0 (-6, 5)	0 (-5, 5)
	Total \geq monthly	0	-5 (-8, -1)	-4 (-8, -1)
	Never smoked	0	8 (2, 14)	11 (5, 17)
No	Daily	0	-12 (-18, -6)	-23 (-28, -18)
	Total \geq monthly	0	-14 (-17, -10)	-26 (-30, -23)
	Never smoked	0	5 (3, 8)	18 (16, 20)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 2001, adjusted for age, sex and ethnicity

adjusted for age, sex and ethnicity

Table 13a: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2003, by *district health board (DHB)*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
Northland DHB					
Daily	17.0	18.4	16.8	14.5	15.9
Total \geq monthly	29.2	31.1	28.0	24.7*	25.9
Never smoked	26.7	28.1	28.4	30.3	32.1**
(n)	(1147)	(1326)	(1288)	(1044)	(1147)
Waitemata DHB					
Daily	14.5	12.8*	11.9**	9.5***	8.7***
Total \geq monthly	28.3	26.1*	22.2***	17.7***	17.2***
Never smoked	35.9	38.6**	41.6***	45.2***	49.3***
(n)	(3033)	(2978)	(2804)	(2875)	(3496)
Auckland DHB					
Daily	12.6	10.6	11.1	7.7***	8.3***
Total \geq monthly	24.0	23.3	24.4	16.6***	16.1***
Never smoked	40.2	39.3	40.8	47.0***	51.1***
(n)	(3028)	(2231)	(2327)	(2337)	(3301)
Counties-Manukau DHB					
Daily	17.2	13.2***	12.2***	14.3***	12.3***
Total \geq monthly	27.2	24.5	21.5***	24.0**	19.2***
Never smoked	37.7	38.7	42.3**	41.6***	51.5***
(n)	(2311)	(2567)	(2784)	(2618)	(3100)
Waikato DHB					
Daily	13.9	15.4	14.9	13.7	13.2
Total \geq monthly	27.2	29.5*	28.0	25.0*	23.0***
Never smoked	28.8	30.9	33.5***	36.0***	39.8***
(n)	(2709)	(2701)	(2512)	(2899)	(3363)
Lakes District DHB#					
Daily	21.1	26.2*	20.0	21.0	18.5
Total \geq monthly	31.9	35.9	29.3	30.8	31.3
Never smoked	22.7	21.9	27.8**	27.9**	31.0***
(n)	(797)	(657)	(782)	(756)	(693)
Bay of Plenty DHB					
Daily	16.5	19.7	12.6***	12.9***	16.8
Total \geq monthly	30.1	30.5	23.1***	23.2***	24.9***
Never smoked	29.6	26.9	36.2***	34.7***	35.5***
(n)	(1282)	(1186)	(1608)	(1683)	(1170)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 1999, adjusted for age, sex and ethnicity

includes schools in area covered jointly by Lakes District & Bay of Plenty DHBs

Table 13b: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2003, by *district health board (DHB)*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
Tairāwhiti DHB					
Daily	25.7	20.1	20.3	21.2	19.6
Total ≥ monthly	39.7	28.7	29.7	30.5	28.6*
Never smoked	22.3	21.2	30.3	22.6	35.5*
(n)	(292)	(279)	(360)	(358)	(276)
Hawkes Bay DHB					
Daily	16.4	16.5	18.5	15.1	12.3***
Total ≥ monthly	33.1	31.0	29.9	28.0***	22.8***
Never smoked	23.5	28.0*	29.0***	30.6***	35.9***
(n)	(1376)	(1288)	(1209)	(1180)	(1154)
Taranaki DHB					
Daily	12.3	13.8	15.0*	7.4*	10.6
Total ≥ monthly	22.4	25.7*	25.2*	12.6***	18.0*
Never smoked	34.4	31.4	34.7	50.2***	43.8***
(n)	(796)	(1047)	(727)	(707)	(1170)
Wanganui DHB#					
Daily	18.1	20.2	13.8*	17.8	14.6**
Total ≥ monthly	29.3	32.8	22.9*	26.6	23.3**
Never smoked	28.1	27.3	32.6	31.0	37.0***
(n)	(679)	(524)	(442)	(342)	(825)
Mid-Central DHB					
Daily	15.3	13.6	12.8	10.7***	13.2
Total ≥ monthly	27.7	23.6	24.1*	19.8***	22.4***
Never smoked	32.0	35.5	33.9	38.2***	37.8***
(n)	(1323)	(1313)	(1076)	(1220)	(1315)
Capital-Coast DHB					
Daily	14.8	13.4	13.0	9.8***	11.8**
Total ≥ monthly	24.5	25.0	23.6	18.2***	19.6***
Never smoked	33.8	37.8	38.2**	43.4***	43.0***
(n)	(1273)	(1926)	(1821)	(2026)	(1972)
Hutt Valley DHB					
Daily	16.7	15.2	13.9	13.9	15.6
Total ≥ monthly	29.0	26.4	24.0**	20.7***	22.4***
Never smoked	31.8	35.3	38.0**	37.9**	39.3***
(n)	(1057)	(1178)	(1336)	(1047)	(1074)

* p<0.05, ** p<0.01, *** p<0.001, compared with 1999, adjusted for age, sex and ethnicity

includes schools in area covered jointly by Wanganui & Mid-Central DHBs

Table 13c: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2003, by *district health board (DHB)*.

Smoking Category	1999	2000	2001	2002	2003
	%	%	%	%	%
Wairarapa DHB					
Daily	18.8	16.7	16.3	16.5	13.3**
Total \geq monthly	33.3	31.6	31.6	27.3	19.8***
Never smoked	27.2	30.2	28.8	33.0	36.7**
(n)	(393)	(490)	(393)	(370)	(483)
Nelson-Marlborough DHB					
Daily	13.9	15.1	10.5*	9.7**	8.9***
Total \geq monthly	25.9	28.3	24.0	19.8***	17.7***
Never smoked	33.4	32.7	37.3	39.8**	42.3***
(n)	(1244)	(1137)	(1145)	(1355)	(1552)
Canterbury DHB					
Daily	16.3	14.4*	12.3***	12.8**	11.1***
Total \geq monthly	32.3	27.8***	25.3***	22.9***	20.4***
Never smoked	29.1	31.9*	34.3***	35.5***	42.2***
(n)	(3055)	(3331)	(3660)	(3293)	(3741)
West Coast DHB					
Daily	22.1	16.1	17.7	11.9**	13.4**
Total \geq monthly	35.4	32.9	27.4*	18.1***	23.0***
Never smoked	26.2	18.7	25.1	35.0*	32.9
(n)	(263)	(155)	(299)	(243)	(292)
South Canterbury DHB					
Daily	13.7	16.2	12.0	13.6	12.8
Total \geq monthly	27.1	27.4	25.0	23.5	20.4**
Never smoked	27.6	30.5	38.7**	35.2*	39.3***
(n)	(424)	(555)	(517)	(514)	(603)
Otago DHB					
Daily	15.8	18.1	12.5*	12.9*	12.5*
Total \geq monthly	30.5	33.6	23.8***	24.5***	21.5***
Never smoked	29.6	29.2	33.3	36.1***	39.3***
(n)	(1621)	(1731)	(1686)	(1607)	(1473)
Southland DHB					
Daily	16.4	18.2	14.5	16.2	18.0
Total \geq monthly	31.5	32.1	23.2***	26.8**	26.4*
Never smoked	24.7	29.6*	32.0**	34.4***	32.5***
(n)	(896)	(730)	(622)	(811)	(674)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 1999, adjusted for age, sex and ethnicity

Table 14a: Percentage change (95% CI) in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2003, compared to 1999, adjusted for age, sex and ethnicity, by *district health board (DHB)*.

Smoking Category	2000	2001	2002	2003
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Northland DHB				
Daily	6 (-10, 25)	-2 (-18, 16)	-14 (-29, 4)	-7 (-22, 11)
Total \geq monthly	4 (-7, 17)	-4 (-15, 8)	-15 (-26, -3)	-12 (-24, 0)
Never smoked	7 (-6, 21)	8 (-5, 22)	13 (-1, 28)	20 (6, 36)
(n)	(1326)	(1288)	(1044)	(1147)
Waitemata DHB				
Daily	-14 (-24, -3)	-18 (-28, -7)	-35 (-43, -25)	-42 (-49, -33)
Total \geq monthly	-10 (-17, -2)	-22 (-29, -15)	-37 (-43, -31)	-40 (-45, -34)
Never smoked	9 (2, 16)	15 (8, 23)	25 (18, 33)	36 (28, 44)
(n)	(2978)	(2804)	(2875)	(3496)
Auckland DHB				
Daily	-12 (-24, 3)	-11 (-23, 2)	-32(-42, -20)	-29 (-38, -18)
Total \geq monthly	-2 (-11, 9)	-1 (-9, 9)	-27 (-34, -18)	-27 (-34, -20)
Never smoked	-2 (-8, 4)	3 (-4, 9)	12 (6, 19)	22 (16, 29)
(n)	(2231)	(2327)	(2337)	(3301)
Counties-Manukau DHB				
Daily	-21 (-31, -10)	-30 (-39, -20)	-21 (-31, -10)	-26 (-35, -15)
Total \geq monthly	-8 (-16, 1)	-21 (-28, -13)	-14 (-22, -6)	-26 (-33, -19)
Never smoked	1 (-6, 8)	11 (4, 19)	12 (5, 19)	30 (22, 38)
(n)	(2567)	(2784)	(2618)	(3100)
Waikato DHB				
Daily	13 (-1, 28)	1 (-11, 16)	-2 (-14, 11)	-5 (-17, 7)
Total \geq monthly	9 (0, 18)	0 (-9, 9)	-9 (-16, 0)	-15 (-22, -7)
Never smoked	7 (-1, 16)	21 (12, 31)	25 (16, 34)	38 (28, 48)
(n)	(2701)	(2512)	(2899)	(3363)
Lakes District DHB#				
Daily	24 (3, 49)	-8 (-24, 11)	-7 (-23, 12)	-15 (-31, 4)
Total \geq monthly	12 (-3, 29)	-11 (-23, 3)	-9 (-21, 5)	-4 (-18, 11)
Never smoked	-5 (-21, 15)	27 (7, 50)	31 (11, 54)	39 (18, 64)
(n)	(657)	(782)	(756)	(693)
Bay of Plenty DHB				
Daily	8 (-8, 27)	-26 (-38, -12)	-28 (-39, -14)	-11 (-26, 7)
Total \geq monthly	-6 (-16, 6)	-25 (-34, -15)	-26 (-34, -17)	-23 (-33, -12)
Never smoked	-4 (-16, 9)	25 (13, 39)	24 (11, 37)	29 (15, 45)
(n)	(1186)	(1608)	(1683)	(1170)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 1999, adjusted for age, sex and ethnicity

includes schools in area covered jointly by Lakes District & Bay of Plenty DHBs

Table 14b: Percentage change (95% CI) in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2003, compared to 1999, adjusted for age, sex and ethnicity, by *district health board (DHB)*.

Smoking Category	2000	2001	2002	2003
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Tairāwhiti DHB				
Daily	-16 (-37, 12)	-15 (-35, 11)	-4 (-25, 24)	-19 (-39, 8)
Total ≥ monthly	-20 (-36, 0)	-17 (-32, 1)	-11 (-26, 9)	-21 (-36, -1)
Never smoked	-11 (-34, 21)	16 (-11, 50)	-15 (-35, 12)	41 (9, 83)
(n)	(279)	(360)	(358)	(276)
Hawkes Bay DHB				
Daily	5 (-12, 24)	11 (-6, 32)	-9 (-24, 9)	-28 (-41, -12)
Total ≥ monthly	-2 (-12, 9)	-9 (-19, 2)	-18 (-27, -8)	-30 (-39, -21)
Never smoked	15 (0, 31)	25 (10, 42)	33 (17, 51)	51 (34, 71)
(n)	(1288)	(1209)	(1180)	(1154)
Taranaki DHB				
Daily	16 (-8, 47)	31 (2, 67)	-32 (-50, -7)	-14 (-33, 10)
Total ≥ monthly	22 (3, 43)	22 (2, 45)	-35 (-48, -18)	-17 (-31, -1)
Never smoked	-11 (-22, 2)	-4 (-17, 10)	38 (22, 56)	26 (12, 41)
(n)	(1047)	(727)	(707)	(1170)
Wanganui DHB#				
Daily	4 (-17, 30)	-27 (-45, -3)	-11 (-32, 17)	-27 (-42, -8)
Total ≥ monthly	10 (-7, 30)	-23 (-38, -6)	-11 (-28, 10)	-25 (-36, -11)
Never smoked	-3 (-19, 16)	17 (-2, 39)	6 (-13, 29)	33 (15, 54)
(n)	(524)	(442)	(342)	(825)
Mid-Central DHB				
Daily	-6 (-21, 13)	-17 (-32, 2)	-32 (-45, -17)	-17 (-31, 0)
Total ≥ monthly	-12 (-22, 0)	-13 (-24, -1)	-31 (-40, -20)	-22 (-32, -11)
Never smoked	9 (-2, 21)	5 (-6, 17)	21 (9, 34)	21 (9, 35)
(n)	(1313)	(1076)	(1220)	(1315)
Capital-Coast DHB				
Daily	-4 (-19, 13)	-9 (-24, 8)	-31 (-42, -16)	-23 (-36, -8)
Total ≥ monthly	5 (-7, 19)	-6 (-17, 7)	-24 (-34, -13)	-24 (-33, -13)
Never smoked	9 (-1, 19)	16 (5, 28)	24 (14, 36)	28 (17, 41)
(n)	(1926)	(1821)	(2026)	(1972)
Hutt Valley DHB				
Daily	-8 (-24, 11)	-15 (-30, 2)	-16 (-31, 3)	-10 (-25, 9)
Total ≥ monthly	-8 (-20, 5)	-16 (-27, -4)	-27 (-37, 15)	-23 (-34, -11)
Never smoked	12 (-1, 25)	20 (7, 34)	20 (7, 35)	26 (12, 41)
(n)	(1178)	(1336)	(1047)	(1074)

* p<0.05, ** p<0.01, *** p<0.001, compared with 1999, adjusted for age, sex and ethnicity
includes schools in area covered jointly by Wanganui & Mid-Central DHBs

Table 14c: Percentage change (95% CI) in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2003, compared to 1999, adjusted for age, sex and ethnicity, by *district health board (DHB)*.

Smoking Category	2000	2001	2002	2003
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Wairarapa DHB				
Daily	-12 (-33, 17)	-14 (-36, 17)	-10 (-34, 21)	-34 (-52, -10)
Total \geq monthly	-8 (-24, 12)	-7 (-24, 14)	-17 (-33, 2)	-45 (-57, -30)
Never smoked	14 (-7, 41)	3 (-18, 30)	19 (-4, 49)	36 (11, 66)
(n)	(490)	(393)	(370)	(483)
Nelson-Marlborough DHB				
Daily	7 (-12, 30)	-23 (-38, -4)	-29 (-43, -12)	-36 (-48, -21)
Total \geq monthly	8 (-5, 23)	-6 (-18, 8)	-22 (-33, -11)	-32 (-41, -21)
Never smoked	-1 (-12, 11)	11 (-1, 23)	18 (6, 30)	27 (15, 40)
(n)	(1137)	(1145)	(1355)	(1552)
Canterbury DHB				
Daily	-11 (-20, 0)	-21 (-29, -11)	-20 (-29, -10)	-34 (-41, -25)
Total \geq monthly	-13 (-19, -7)	-19 (-25, -13)	-28 (-33, -22)	-38 (-43, -33)
Never smoked	8 (0, 16)	14 (7, 23)	20 (11, 28)	45 (35, 55)
(n)	(3331)	(3660)	(3293)	(3741)
West Coast DHB				
Daily	-33 (-57, 5)	-19 (-42, 12)	-47 (-65, -19)	-44 (-61, -19)
Total \geq monthly	-7 (-30, 23)	-22 (-39, -1)	-51 (-65, -33)	-37 (-51, -18)
Never smoked	-32 (-55, 1)	-4 (-28, 28)	41 (8, 83)	29 (-1, 68)
(n)	(155)	(299)	(243)	(292)
South Canterbury DHB				
Daily	17 (-14, 57)	-15 (-39, 19)	-1 (-28, 36)	-13 (-37, 19)
Total \geq monthly	0 (-19, 23)	-7 (-25, 15)	-14 (-31, 7)	-27 (-42, -9)
Never smoked	9 (-10, 33)	36 (13, 65)	27 (4, 54)	42 (18, 71)
(n)	(555)	(517)	(514)	(603)
Otago DHB				
Daily	13 (-3, -31)	-18 (-31, -3)	-17 (-30, -1)	-20 (-33, -5)
Total \geq monthly	9 (-1, 21)	-20 (-29, -11)	-19 (-28, -10)	-30 (-38, -21)
Never smoked	0 (-10, 11)	10 (-1, 22)	21 (9, 33)	32 (20, 46)
(n)	(1731)	(1686)	(1607)	(1473)
Southland DHB				
Daily	8 (-13, 33)	-16 (-34, 7)	-7 (-25, 15)	10 (-12, 36)
Total \geq monthly	-2 (-15, 13)	-28 (-39, -15)	-19 (-30, -6)	-17 (-29, -3)
Never smoked	22 (4, 43)	31 (12, 54)	43 (24, 66)	34 (14, 57)
(n)	(730)	(622)	(811)	(674)

* p<0.05, ** p<0.01, *** p<0.001, compared with 1999, adjusted for age, sex and ethnicity

Table 15: Summary of trends in smoking prevalence, by District Health Board (1999-2003).

District Health Board	N 1999-2003	Daily	Total ≥Monthly	Never smokers
Northland	6005	↔	↔	↑
Waitemata	15,219	↓	↓	↑
Auckland	13,224	↓	↓	↑
Counties-Manukau	13,380	↓	↓	↑
Waikato	14,184	↔	↓	↑
Lakes District*	3685	↔	↔	↑
Bay of Plenty	6929	↔	↓	↑
Tairāwhiti	1565	↔	↓	↑
Hawkes Bay	6207	↓	↓	↑
Taranaki	4447	↔	↓	↑
Wanganui#	2812	↓	↓	↑
Mid-Central	6247	↓	↓	↑
Capital-Coast	9018	↓	↓	↑
Hutt Valley	5692	↔	↓	↑
Wairarapa	2129	↓	↓	↑
Nelson-Marlborough	6433	↓	↓	↑
Canterbury	17,080	↓	↓	↑
West Coast	1252	↓	↓	↑
South Canterbury	2613	↔	↓	↑
Otago	8118	↓	↓	↑
Southland	3733	↔	↓	↑

* includes schools covered jointly by Lakes District & Bay of Plenty DHBs.

includes schools covered jointly by Wanganui & Mid-Central DHBs.

From 1999 to 2003: ↔ = no change; ↓ = decrease; ↑ = increase.

Fig 11: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Northland DHB

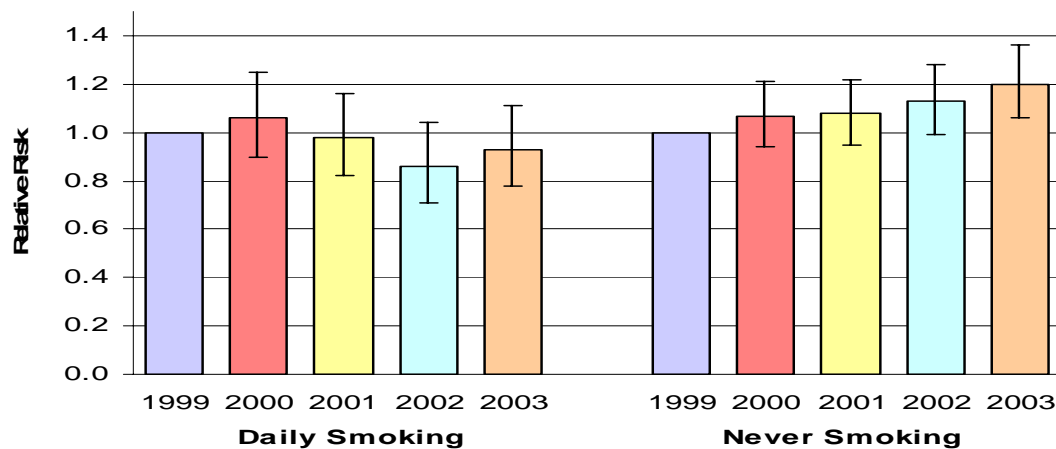


Fig 12: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Waitemata DHB

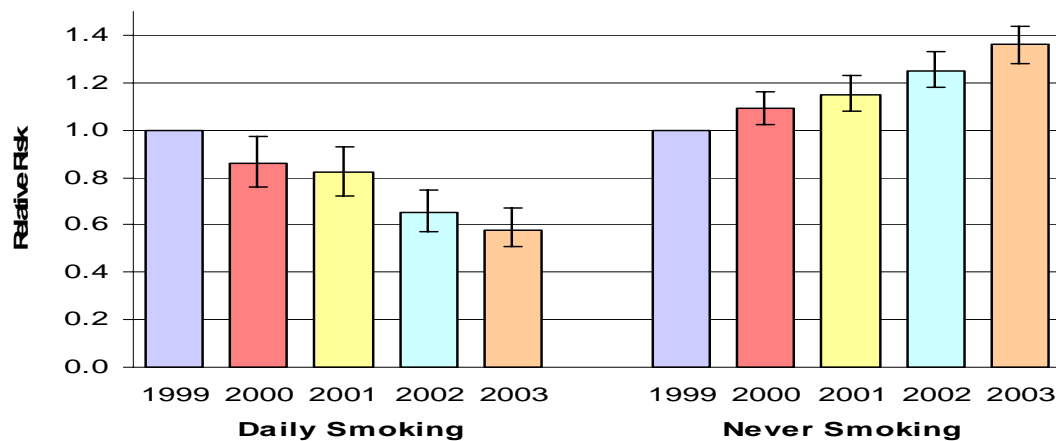


Fig 13: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Auckland DHB

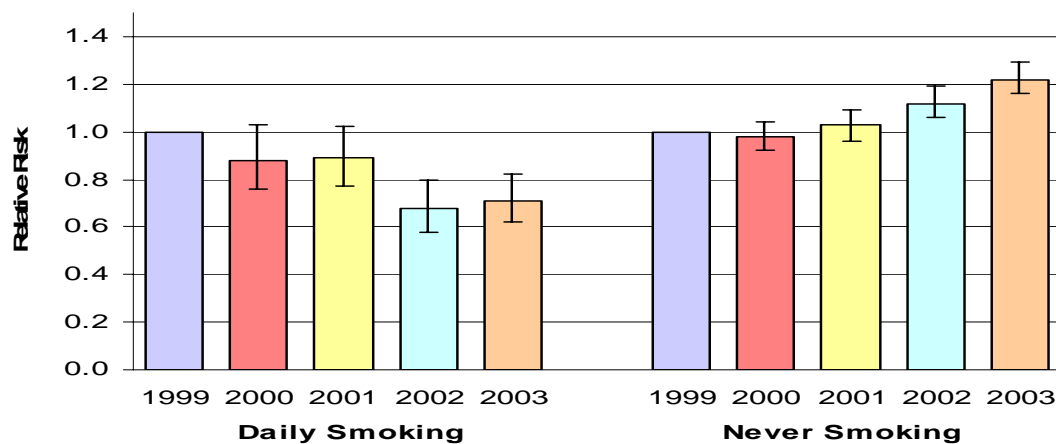


Fig 14: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Counties-Manukau DHB

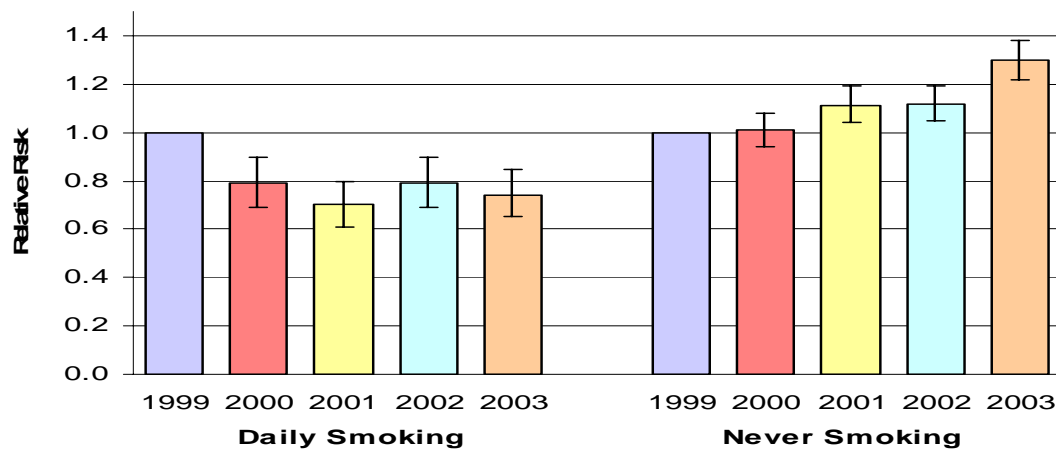


Fig 15: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Waikato DHB

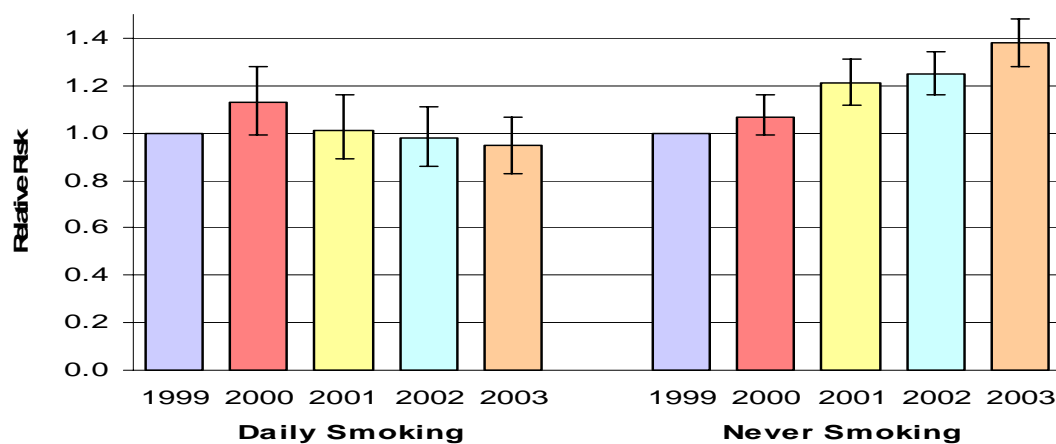


Fig 16: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Lakes District DHB

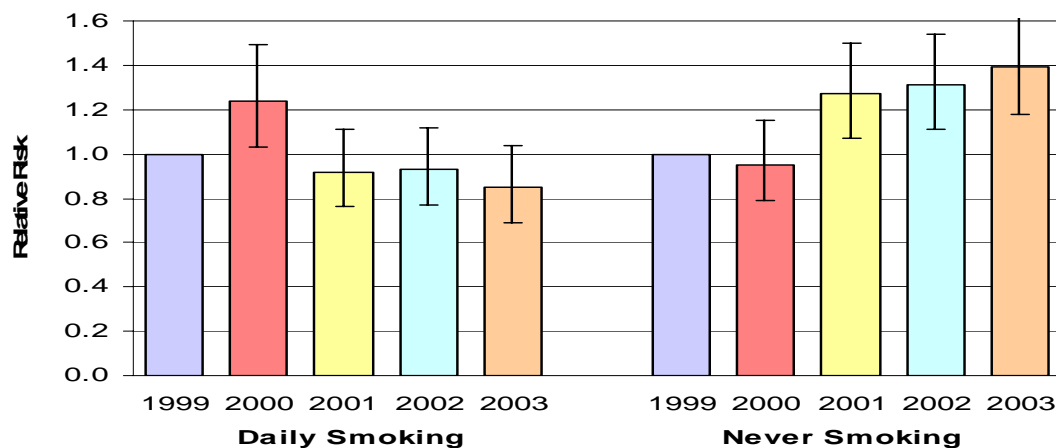


Fig 17: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Bay of Plenty DHB

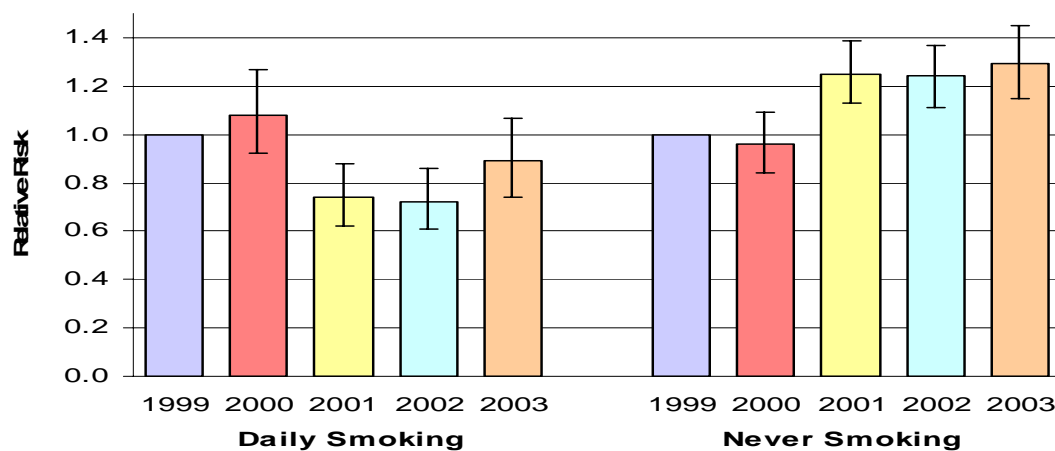


Fig 18: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Tairāwhiti DHB

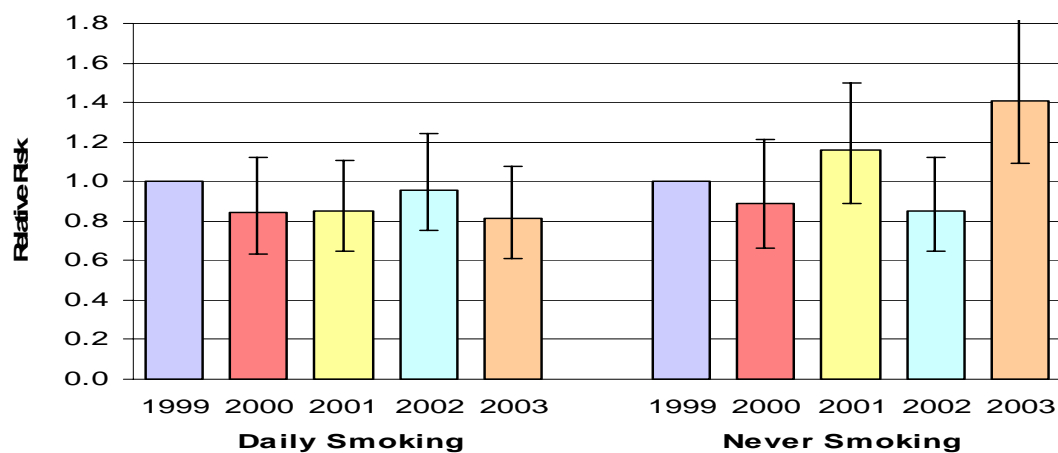


Fig 19: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Hawkes Bay DHB

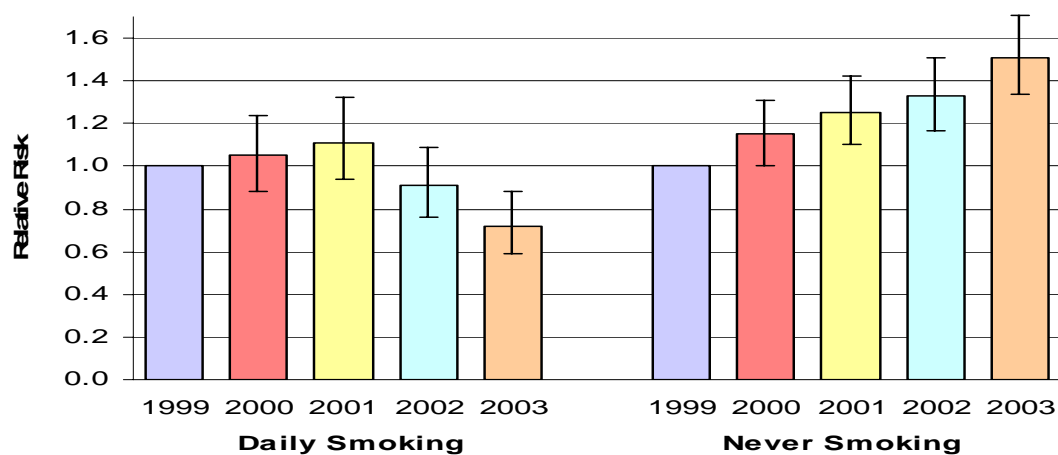


Fig 20: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Taranaki DHB

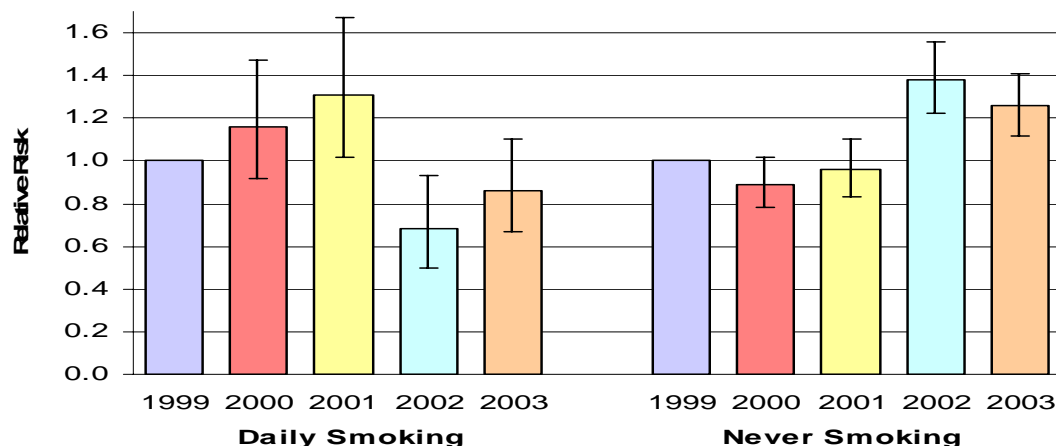


Fig 21: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Wanganui DHB

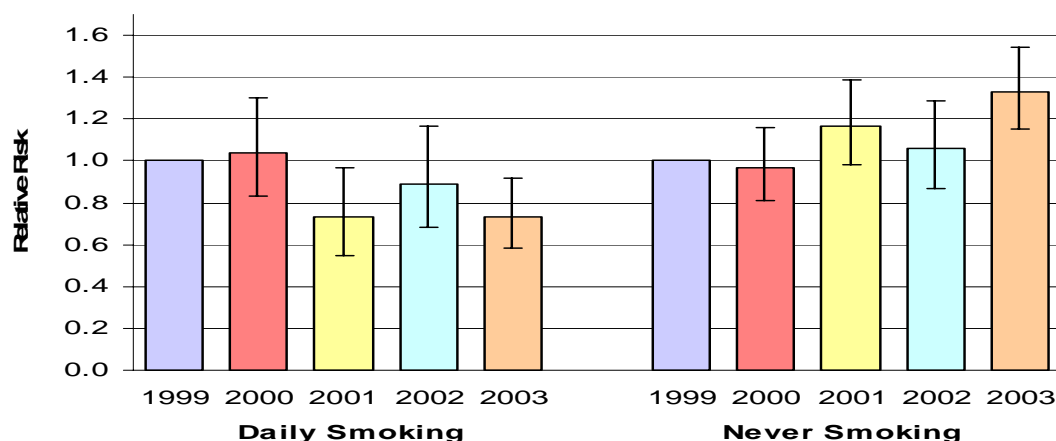


Fig 22: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Mid-Central DHB

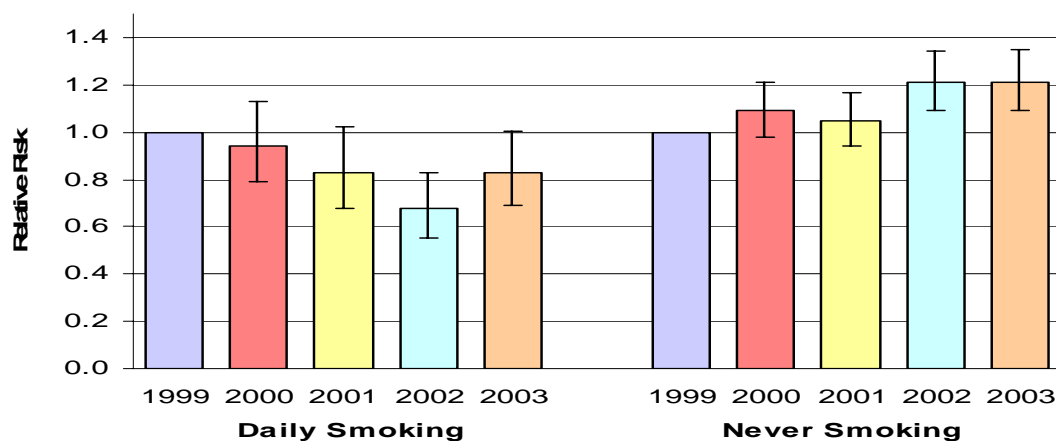


Fig 23: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Capital-Coast DHB

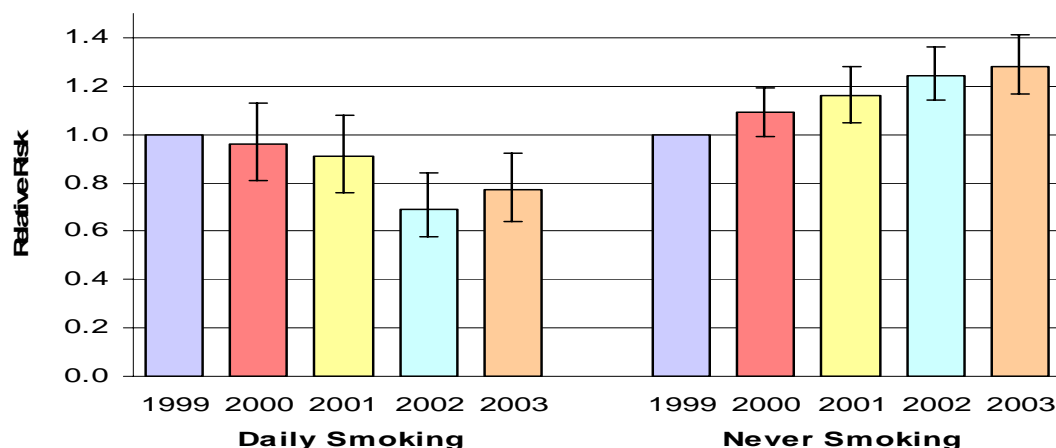


Fig 24: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Hutt Valley DHB

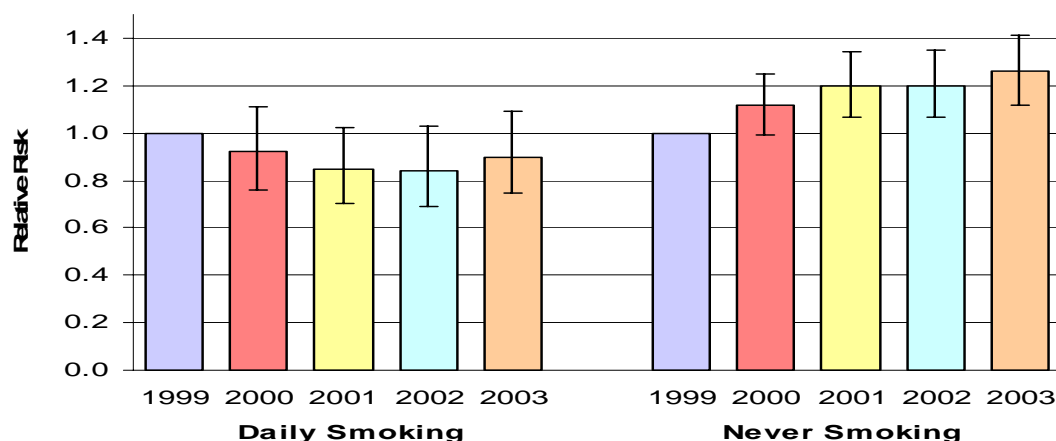


Fig 25: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Wairarapa DHB

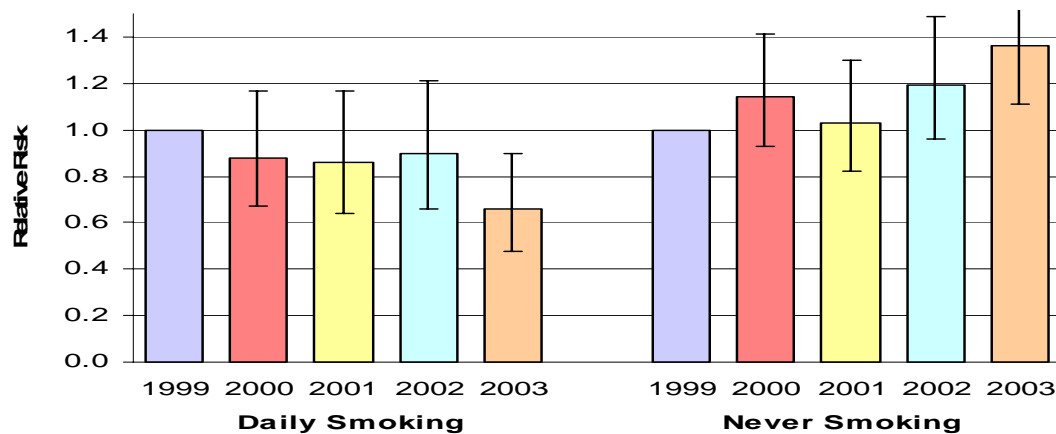


Fig 26: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Nelson-Marlborough DHB

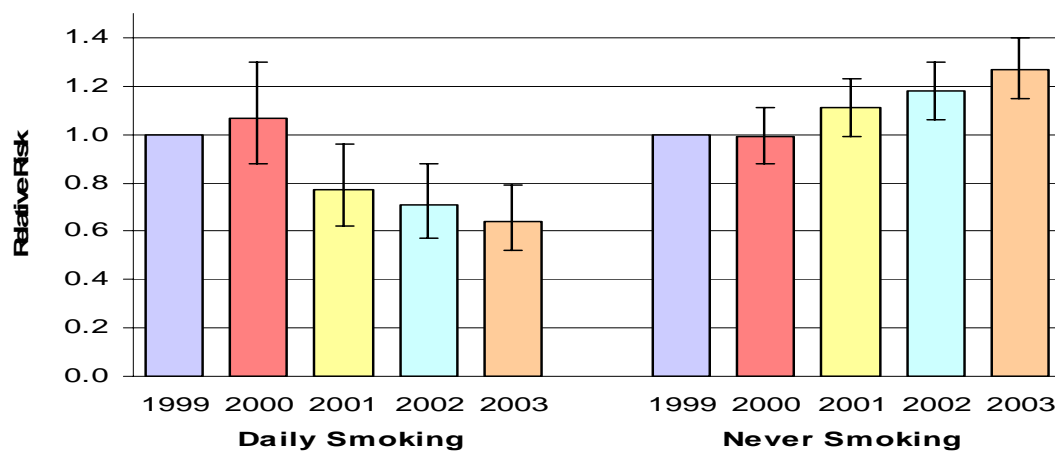


Fig 27: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Canterbury DHB

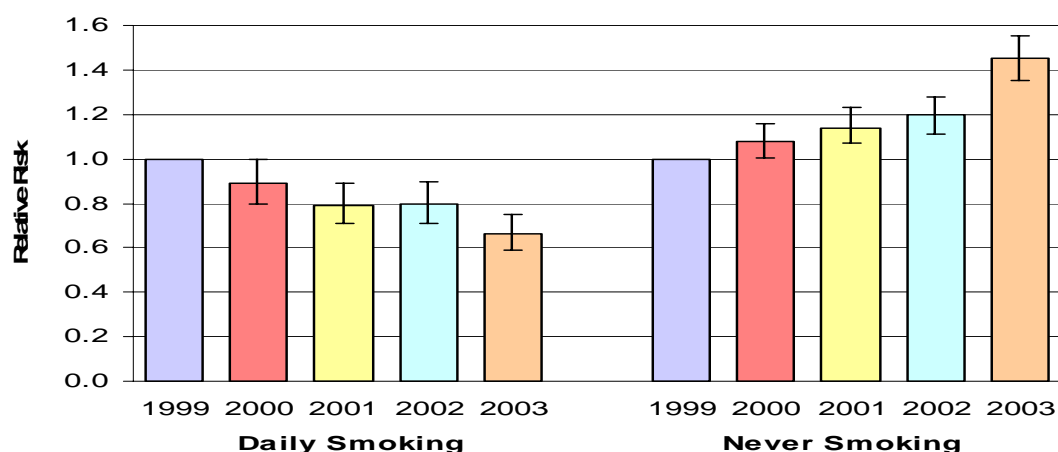


Fig 28: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - West Coast DHB

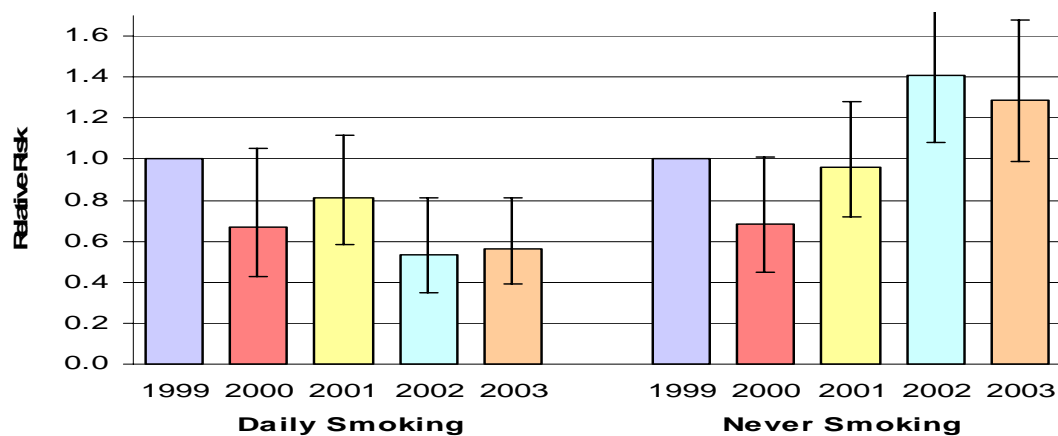


Fig 29: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - South Canterbury DHB

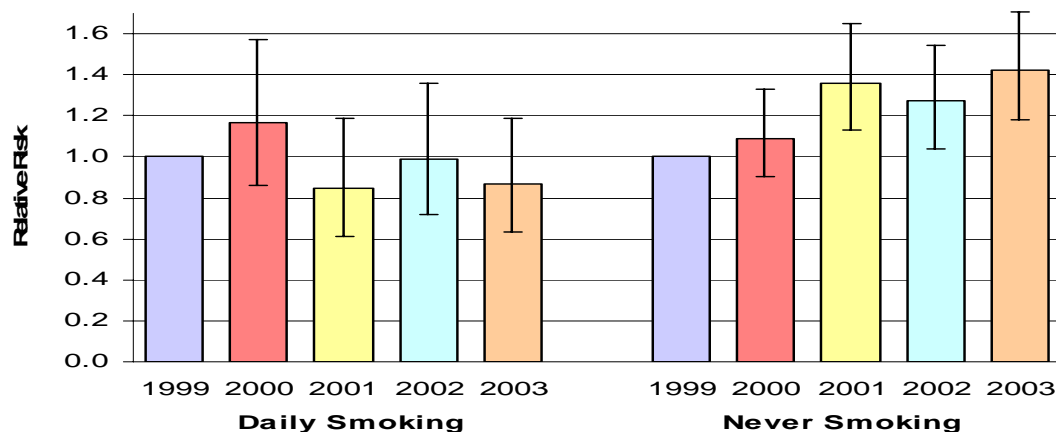


Fig 30: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Otago DHB

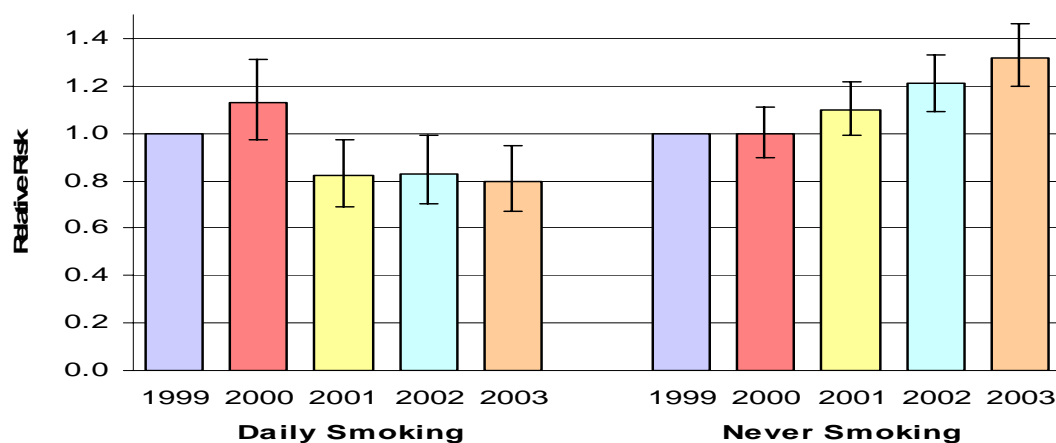


Fig 31: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age, sex & ethnicity - Southland DHB

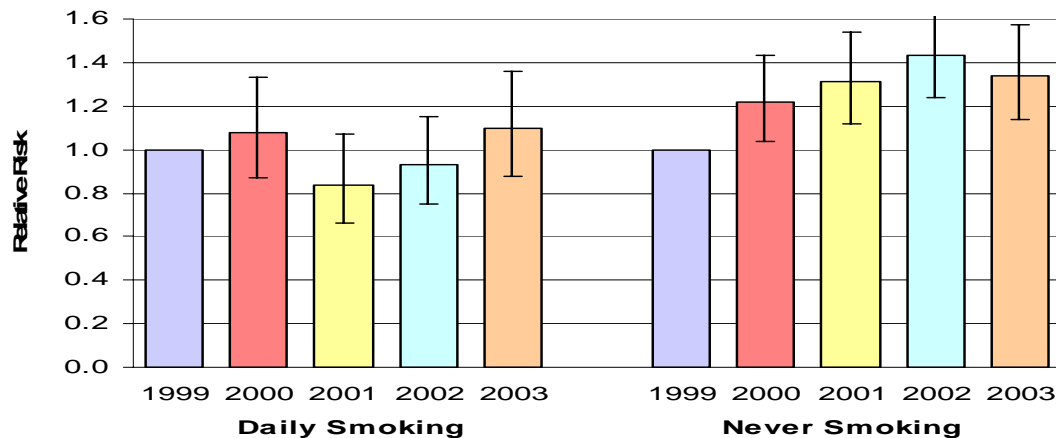


Table 16: Percent of Year 10 students smoking daily, who have parents that smoke, or living in a house where there is smoking, by District Health Board (2001-03).

District Health Board	N	Percent of Students who:		
		<i>are Daily Smokers</i>	<i>have Smoking Parents</i>	<i>have Smoking in House</i>
Northland	3532	15.8%	47.3%	36.0%
Waitemata	9175	9.9%	36.9%	26.3%
Auckland	7965	8.9%	34.4%	24.1%
Counties-Manukau	8502	12.9%	40.6%	28.6%
Waikato	8774	13.9%	41.8%	30.7%
Lakes District*	2231	19.9%	51.0%	35.6%
Bay of Plenty	4461	13.8%	44.6%	30.1%
Tairāwhiti	994	20.4%	55.9%	40.6%
Hawkes Bay	3543	15.4%	48.7%	35.5%
Taranaki	2604	10.9%	42.1%	34.5%
Wanganui#	1609	15.0%	46.3%	36.2%
Mid-Central	3611	12.2%	44.0%	31.6%
Capital-Coast	5819	11.5%	36.3%	26.5%
Hutt Valley	3457	14.4%	41.6%	29.0%
Wairarapa	1246	15.2%	44.3%	36.4%
Nelson-Marlborough	4052	9.6%	36.0%	25.0%
Canterbury	10694	12.0%	34.6%	24.4%
West Coast	834	14.5%	47.7%	40.8%
South Canterbury	1634	12.8%	38.4%	30.5%
Otago	4766	12.6%	36.5%	28.2%
Southland	2107	16.2%	44.4%	39.8%

* includes schools covered jointly by Lakes District & Bay of Plenty DHBs

includes schools covered jointly by Wanganui & Mid-Central DHBs

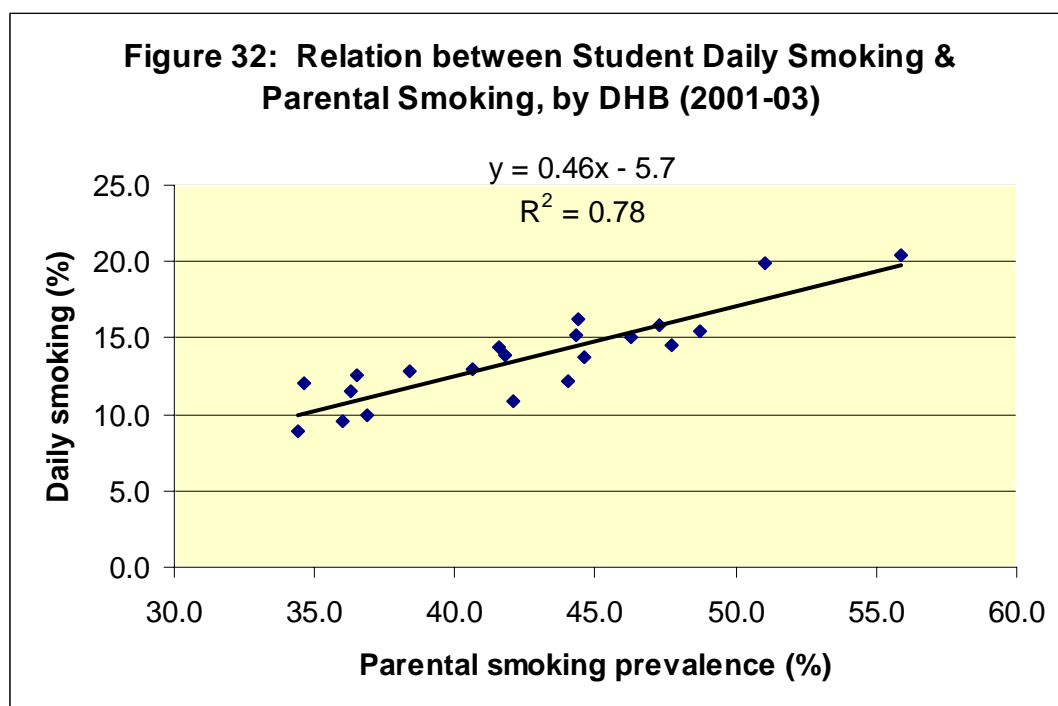
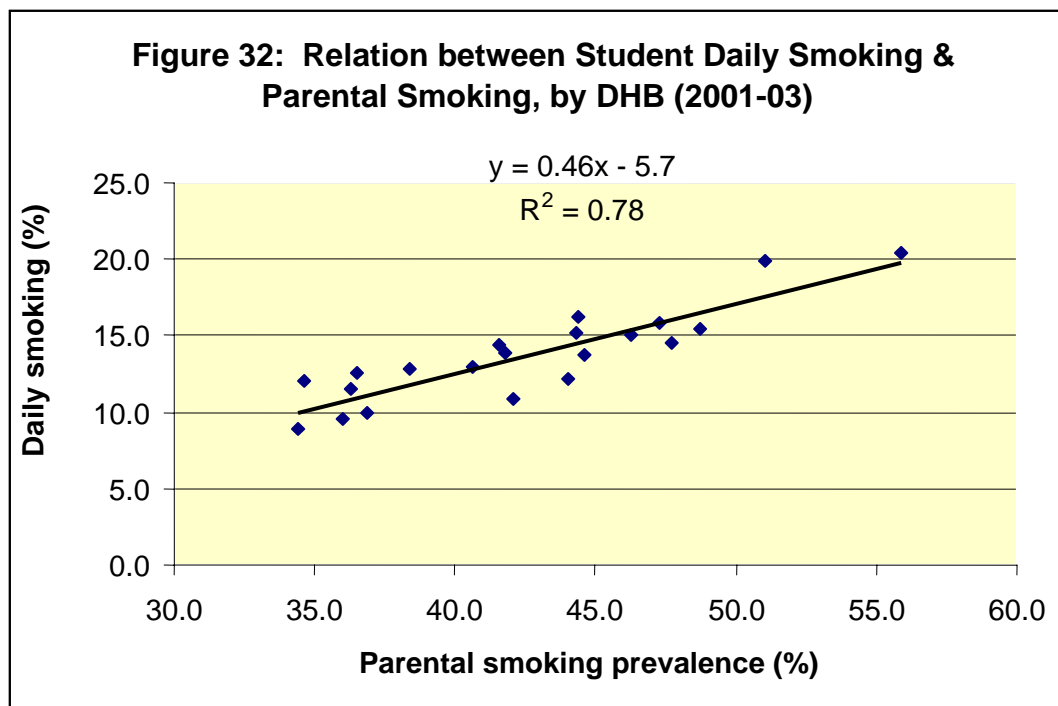


Table 17: Relative risk of daily smoking by Year 10 students in District Health Boards, compared with Auckland DHB (2001-03).

District Health Board	N	Daily Smokers	Relative Risk (95% CI) adjusted for age and sex, plus				
			Only	Ethnicity	Parental Smoking	Smoke in House	All three
Northland	3532	15.8%	1.78 (1.61, 1.98)	1.37 (1.22, 1.53)	1.42 (1.29, 1.57)	1.54 (1.39, 1.71)	1.18 (1.05, 1.32)
Waitemata	9175	9.9%	1.12 (1.02, 1.23)	1.08 (0.98, 1.19)	1.04 (0.95, 1.14)	1.08 (0.98, 1.18)	1.02 (0.93, 1.12)
Auckland	7965	8.9%	1.00	1.00	1.00	1.00	1.00
Counties-Manukau	8502	12.9%	1.46 (1.34, 1.60)	1.27 (1.16, 1.38)	1.28 (1.18, 1.40)	1.37 (1.26, 1.50)	1.19 (1.09, 1.30)
Waikato	8774	13.9%	1.55 (1.42, 1.69)	1.36 (1.24, 1.49)	1.34 (1.23, 1.46)	1.42 (1.30, 1.54)	1.23 (1.12, 1.35)
Lakes District*	2231	19.9%	2.19 (1.96, 2.44)	1.59 (1.41, 1.79)	1.68 (1.51, 1.87)	1.90 (1.70, 2.11)	1.41 (1.26, 1.59)
Bay of Plenty	4461	13.8%	1.57 (1.41, 1.73)	1.25 (1.12, 1.39)	1.28 (1.16, 1.41)	1.44 (1.30, 1.60)	1.11 (0.99, 1.24)
Tairāwhiti	994	20.4%	2.37 (2.06, 2.72)	1.46 (1.25, 1.70)	1.74 (1.52, 2.00)	1.92 (1.68, 2.21)	1.29 (1.10, 1.50)
Hawkes Bay	3543	15.4%	1.71 (1.54, 1.90)	1.35 (1.21, 1.51)	1.35 (1.22, 1.49)	1.50 (1.35, 1.66)	1.17 (1.04, 1.31)
Taranaki	2604	10.9%	1.26 (1.11, 1.44)	1.16 (1.01, 1.33)	1.06 (0.94, 1.21)	1.08 (0.95, 1.23)	1.00 (0.87, 1.15)
Wanganui#	1609	15.0%	1.71 (1.50, 1.96)	1.32 (1.14, 1.52)	1.35 (1.18, 1.54)	1.42 (1.24, 1.63)	1.14 (0.99, 1.32)
Mid-Central	3611	12.2%	1.37 (1.22, 1.53)	1.21 (1.08, 1.37)	1.14 (1.02, 1.27)	1.21 (1.08, 1.35)	1.02 (0.91, 1.16)
Capital-Coast	5819	11.5%	1.30 (1.18, 1.44)	1.22 (1.11, 1.35)	1.22 (1.10, 1.34)	1.25 (1.13, 1.38)	1.15 (1.04, 1.27)
Hutt Valley	3457	14.4%	1.68 (1.51, 1.88)	1.48 (1.33, 1.65)	1.46 (1.31, 1.62)	1.57 (1.42, 1.75)	1.38 (1.24, 1.54)
Wairarapa	1246	15.2%	1.71 (1.47, 1.98)	1.63 (1.40, 1.90)	1.43 (1.24, 1.65)	1.43 (1.24, 1.66)	1.31 (1.13, 1.53)
Nelson-Marlborough	4052	9.6%	1.08 (0.96, 1.22)	1.13 (1.00, 1.28)	1.02 (0.91, 1.14)	1.07 (0.96, 1.21)	1.05 (0.93, 1.19)
Canterbury	10694	12.0%	1.35 (1.23, 1.47)	1.41 (1.29, 1.55)	1.29 (1.19, 1.41)	1.34 (1.23, 1.46)	1.33 (1.21, 1.46)
West Coast	834	14.5%	1.62 (1.35, 1.94)	1.59 (1.32, 1.91)	1.26 (1.06, 1.50)	1.28 (1.07, 1.53)	1.21 (1.00, 1.47)
South Canterbury	1634	12.8%	1.41 (1.22, 1.62)	1.49 (1.28, 1.72)	1.22 (1.06, 1.41)	1.29 (1.12, 1.49)	1.30 (1.12, 1.51)
Otago	4766	12.6%	1.42 (1.28, 1.57)	1.49 (1.33, 1.66)	1.31 (1.19, 1.45)	1.32 (1.19, 1.46)	1.34 (1.20, 1.50)
Southland	2107	16.2%	1.77 (1.57, 2.00)	1.67 (1.48, 1.90)	1.53 (1.36, 1.72)	1.44 (1.27, 1.62)	1.38 (1.21, 1.56)

* includes schools covered jointly by Lakes District & Bay of Plenty DHBs

includes schools covered jointly by Wanganui & Mid-Central DHBs

Table 18: Percent of Year 10 students (girls & boys combined) who have parents that smoke, or living in a house where there is smoking, by ethnicity (2001-03).

Variable	Maori	Pacific	Asian	European*	Total
Parent who smokes	65.0%	47.5%	30.5%	34.3%	40.1%
Smoking in house	46.6%	32.3%	20.0%	25.7%	29.2%

* includes Other ethnicities

Table 19: Age adjusted relative risks of daily smoking associated with ethnicity, compared with European/Other students, adjusting for parental smoking and smoking in the home: 2001-2003 surveys

Variable Adjusted (plus Age)	Relative Risk (95% CI)		
	Maori	Pacific	Asian
<i>Girls</i>			
Age only	3.21 (3.07, 3.35)	1.71 (1.58, 1.86)	0.36 (0.31, 0.43)
Parental smoking	2.18 (2.09, 2.27)	1.47 (1.36, 1.59)	0.42 (0.36, 0.50)
Smoking in house	2.50 (2.40, 2.61)	1.58 (1.47, 1.71)	0.39 (0.33, 0.45)
Parent smoking & smoking in house	2.12 (2.03, 2.22)	1.47 (1.36, 1.59)	0.43 (0.36, 0.50)
<i>Boys</i>			
Age only	2.13 (2.00, 2.26)	1.43 (1.29, 1.58)	0.80 (0.70, 0.90)
Parental smoking	1.52 (1.43, 1.61)	1.22 (1.11, 1.35)	0.89 (0.79, 1.00)
Smoking in house	1.71 (1.61, 1.82)	1.33 (1.20, 1.47)	0.86 (0.76, 0.97)
Parent smoking & smoking in house	1.49 (1.40, 1.58)	1.23 (1.11, 1.36)	0.90 (0.80, 1.02)