

Report of 1999-2004 National Year 10 Smoking Surveys

Prepared for ASH

by

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Acknowledgements

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Summary

Objectives

1. Investigate trends in adolescent smoking prevalence during 1999-2004, and determine whether trends have been similar in all ethnic groups and in all District Health Board (DHB) regions
2. Investigate trends in parental smoking prevalence, and smoking in the home, both risk factors for adolescent smoking, during the last 4 years (2001-2004).

Methods

Annual national surveys of Year 10 students who answered an anonymous self-administered questionnaire during 1999-2004 (n=181,893).

Results

- Daily smoking prevalence declined more in boys (from 14.1% in 1999 to 8.1% in 2004, a 42% relative decrease) than in girls (from 17.1% in 1999 to 11.4% in 2004, a 33% relative decrease).
- Trends in daily smoking during 1999-2004 varied by ethnicity, with the relative change: among girls being Maori -17%, Pacific -45%, Asian -52% and European -42%; and among boys, Maori -28%, Pacific -26%, Asian -48%, and European -51%. These trends indicate that the excess in daily smoking prevalence continued to increase in Maori and Pacific students, relative to European, during 1999-2004. In 2004, Maori girls were 4.0 times, and Maori boys 2.7 times, more likely to be daily smokers than Europeans of the same sex.
- Daily smoking remained unchanged, although never smoking increased, during 1999 to 2004 in girls attending SES decile 1-2 schools. All other SES deciles had declines in daily smoking.
- Daily smoking by students declined during 1999 to 2004 regardless of parental smoking status, although the absolute increase in never smoking was greater in students with both parents being non-smokers (13.1%) than in students with both parents being smokers (5.5%).

- In contrast with the trend during 1999-2003, the additional data for 2004 show a significant decline in daily smoking in all District Health Boards (DHBs) except for South Canterbury. From 1999 to 2004, total smoking prevalence (monthly or more often) has declined, and never smoking has increased, in all DHBs.
- Smoking in the home declined (12% relative decrease), but parental smoking remained unchanged, during 2001 to 2004.

Conclusions

Daily smoking prevalence is now declining in all demographic groups including Maori girls. However, ethnic relative differences in adolescent daily smoking have increased during 1999-2004. Current strategies aimed at decreasing ethnic gaps do not seem to be working.

Outline of Document

Data are reported from the national Year 10 surveys carried out during 1999-2004. The data analyses are in two sections:

- Trends in student smoking prevalence during 1999-2004, comparing changes over the 6 years, by sex, ethnicity, and district health board region.
- Trends in parental smoking prevalence (and smoking in the home) during the last 4 years (2001-2004).

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 9.1). This software currently does not allow for calculation of adjusted relative risks corrected 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 have occurred. 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.

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.

Change in student smoking question in 2004 survey

The order of responses to the question asking “How often do you **now** smoke?”, after the response to “Never”, was reversed in 2004 so that it started with lowest frequency of smoking, compared with earlier surveys which started with daily smoking (Boxes 1 & 2). This change was made because the definition of the age that students first started smoking was tightened to specify smoking monthly in order to separate experimentation from regular monthly smoking. Changing the order in 2004 allowed students who currently smoked less than monthly to skip this question. For all surveys, students answering “No” to Q5 were classified as *never* smokers, and students answering “Never” to Q6 were classified as *previous* smokers.

Box 1: questions on student cigarette smoking in 1999 – 2003 surveys

Q5 Have you ever smoked a cigarette, even just a few puffs?

1 ☐ Yes

2 ☐ No → → → → NOW GO TO Q12 – TURN OVER PAGE

Q6 How often do you now smoke? (PLEASE TICK ONE ANSWER ONLY)

1 ☐ Never → → → → → → → → → → → → → → → → NOW GO TO Q11 – TURN OVER PAGE

2 ☐ At least once a day

3 ☐ At least once a week

4 ☐ At least once a month

5 ☐ Less often

Q7 At what age did you first start smoking? *

WRITE IN THE AGE IN YEARS HERE _____ YEARS

* Asked in 2003 survey only

Box 2: questions on student cigarette smoking in 2004 survey

Q5 Have you ever smoked a cigarette, even just a few puffs?

1 ☐ Yes

2 ☐ No → → → → NOW GO TO Q15 – TURN OVER PAGE

Q6 How often do you now smoke? (PLEASE TICK ONE ANSWER ONLY)

1 ☐ Never → → → → → → → → → → → → → → → → NOW GO TO Q14 – TURN OVER PAGE

2 ☐ Less often than once a month → → → → → → → NOW GO TO Q8

3 ☐ At least once a month

4 ☐ At least once a week

5 ☐ At least once a day

Q7 At what age did you first start smoking monthly?

WRITE IN THE AGE IN YEARS HERE _____ YEARS

Student Smoking Trends: 1999-2004

Sample Size by Year (Table 1)

Table 1 shows the annual number of questionnaires available for analysis, during 1999-2004. The number of students aged 14 and 15 years returning questionnaires in 2004 was 32,399, about 1000 less than in 2003 and about 2000 more than in earlier years. After excluding questionnaires with missing information on sex, ethnicity and cigarette smoking status, information from 181,893 students was available for analyses covering the 6 year period of 1999-2004. In ethnic comparisons, 'Other' students have been combined with European.

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

Smoking prevalences have progressively declined in New Zealand Year 10 boys and girls during 1999 to 2004 (Table 2a). Table 2b compares trends in smoking categories by sex. In girls, daily, weekly, monthly and \geq monthly smoking significantly decreased from 1999 to 2004, 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 44.3% in 2004. A similar pattern was seen in boys, among whom daily smoking decreased from 14.1% in 1999 to 8.1% in 2004, while the proportion who never smoked increased from 33.3% in 1999 to 49.9% in 2004.

It could be argued that the decrease in daily smoking prevalence from 2003 to 2004 (girls: 14.2% to 11.4%; boys: 9.9% to 8.1%) is partly due to the changed order of responses to Q6 in 2004, when students may have been less likely to tick the box for "At least once a day" because it was asked last (see Boxes 1 & 2). If this is so, then the prevalence of smoking "Less often" than once a month should have increased in 2004, when it was asked first (after "Never"). However, the prevalence of smoking "Less often" than once a month also declined from 2003 to 2004 (girls: 11.1% to 8.9%; boys: 9.0% to 6.5%). Thus, the changed order of responses to Q6 is unlikely to explain the decreased daily smoking prevalence in 2004 (compared with 2003), since percentages declined for all smoking frequencies – daily, weekly, monthly and less often (Table 2). Further, the increased prevalence from 2003 to 2004 of never smokers (girls: 39.1% to 44.3%; boys: 46.0% to 49.9%), and of previous smokers (girls: 24.9% to 25.6%; boys: 28.7% to 29.9%), calculated using questions that remained unchanged from 1999 to

2004, provides additional confirmation that the smoking prevalence continued to decline from 2003 to 2004 in both girls and boys.

Table 3 reports percentage changes in prevalence of daily, total \geq monthly and never smoking for 2000-2004 compared with 1999, for both sexes together, and also by sex, adjusting for age and ethnicity. Daily smoking has declined by 37% and never smoking increased by 46% for girls and boys combined. The 42% decline in daily smoking prevalence by boys (95% CI: -54%, -38%) was significantly greater than the 33% decline by girls (95% CI: -37%, -29%) since their confidence intervals do not overlap. The increase in the prevalence of never smoking from 1999 to 2004 was similar in girls and boys (45% and 47%, respectively). These trends are shown graphically in Figures 1 and 2. Overall these results suggest that daily smoking prevalences are declining in both female and male students, but more so in the latter; while the relative increase in the prevalence of never smoking has been the same for both sexes.

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

Tables 4, 5a and 5b show absolute levels and percentage changes compared to 1999, respectively, in smoking behaviour by ethnic group from 1999 to 2004. Figures 3-10 show relative risks for each of the last 5 years, compared with 1999 (=1.0), adjusted for age.

- Maori girls: after 5 years of no change in daily smoking prevalence from 1999 to 2003, there has been a substantial 5% absolute decline in daily smoking from 2003 to 2004 (from 34.2% to 29.1%), so that the relative decline in daily smoking from 1999 to 2004 is 17% ($p < 0.001$); significant 16% relative decline in \geq monthly smoking from 50.9% to 42.2%; while the proportion of never smokers continued to increase from 2003, with a 41% relative increase in never smoking in 2004 compared with 1999. Long-term trend suggests decline in daily smoking prevalence has started, but remains much smaller than that occurring in other sex-ethnic subgroups. The 41% relative increase in never smokers in 2004, following on from the 20% relative increase in 2003, compared with 1999, indicates that the prevalence of never smoking is increasing, but still remains low compared with other sex-ethnic subgroups.

- Pacific girls: a 5% absolute decline in daily smoking from 2003 to 2004 (18.1% to 13.2%), so that cumulatively there has been a 42% relative decline ($p<0.001$) in daily smoking from 1999 to 2004; 21% relative decline ($p<0.001$) in \geq monthly smoking from 33.3% to 26.3%; after no change in proportion of never smokers from 1999 to 2003, there has been 5% absolute increase from 2003 to 2004. Data indicate significant progressive decline in prevalence of regular smokers, and possible increasing trend in prevalence of never smokers which needs confirmation by further surveys.
- Asian girls: prevalence of daily smoking declined in 2004 after trending up since 2001, so that relative decline since 1999 is now 52%; and the proportion of never smokers continued to rise in 2004 (18% relative increase since 1999), despite having the highest absolute non-smoking prevalence of all sex-ethnic subgroups (now 75.5%).
- European girls: significant relative declines in both daily (42%) and \geq monthly (43%) smoking, along with a rise in proportion of never smokers (55% relative), indicate that their smoking is declining progressively.
- Maori boys: significant relative declines in both daily (18% by 2004) and \geq monthly (25% by 2004) smoking, along with a continuing rise in proportion of never smokers (47% relative by 2004), indicate that their smoking has declined since 1999. However, the trend in daily smoking prevalence, may have plateaued since 2001 and requires further monitoring (Figure 7).
- Pacific boys: 26% relative decline ($p<0.01$) in daily smoking from 16.6% to 11.8%, along with 24% relative decline in \geq monthly smoking, and significant 21% rise in proportion of never smokers, from 1999 to 2004, indicate that their smoking has declined; but need further monitoring to determine whether the trend in daily smoking and never smoking is continuing to change or not (Figure 8).
- Asian boys: 3% absolute decrease in daily smoking prevalence from 2003 to 2004 (6.4% to 3.8%), so that there is now a significant 48% relative decline in daily smoking since 1999; and a 6% absolute increase in never smoking from 2003 to 2004 (69.1% to 75.1%). Long term trend shows increase in never smoking, with decreasing trend in daily smoking (Figure 9).

- European boys: significant 51% relative declines in daily smoking and 52% decline in \geq monthly smoking, along with a rise in proportion of never smokers (55% relative), indicate that their smoking has declined during 1999 to 2004.

Table 6 reports annual relative risks of daily smoking for Maori, Pacific and Asian students compared with European/other. During the period 1999-2004, because of the greater decline in the prevalence of daily smoking among European students, ethnic specific relative risks increased from 2.76 to 4.04 in Maori girls, and from 1.88 to 2.73 in Maori boys. Smaller increases in relative risk occurred in Pacific students. The relative risks in Asian boys, which converged towards 1.0 up to 2003, diverged away from 1.0 in 2004. Overall, these comparisons indicate that the gap in daily smoking prevalence continues to increase between Maori and Pacific students compared with European.

Trends by School SES Decile (Tables 7a – 8b)

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 remaining unchanged, and prevalence of never smoking increasing slightly (14% relative increase) during 1999-2004 for girls in (the lowest) SES deciles 1 and 2, after adjusting for age and ethnicity.

Trends by Parental Smoking & Smoking in the Home (Tables 9 & 10)

Information from students on parental smoking and smoking in the home was available for 2001-2004. During this 4-year period, there was 6.8% decline in the prevalence of never smoking among students with both parents being smokers, larger than the 2.6% absolute decline in students with non-smoking parents, although smaller in relative terms (-21% v. -36%, Table 9). In contrast, the absolute increase in the prevalence of never smoking was only 5.5% in students with both parents being smokers compared with 13.1% in students with both parents being non-smokers.

Trends in student smoking also were examined by whether-or-not smoking was allowed in the home (Table 10). Among students living in homes with smoking, daily smoking by students decreased by an absolute 6% from 2003 to 2004, in contrast with the period from 1999 to 2003 when there was no change in daily smoking. Further monitoring is required to see if the student smoking trends vary according to whether-or-not there is smoking in the home.

Trends by District Health Boards (Tables 11a-11f, 12, & 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 11a-11f. Figures 11-31, show relative risks of daily smoking and never smoking, during 2000-2004, compared with 1999. DHB boundaries changed slightly in 2004, and prevalences for smoking behaviour have been re-calculated for all years in affected DHBs (Waikato and Wanganui).

The summary results of trends in daily smoking, smoking monthly or more often, and never smoking, are shown in Table 12. In contrast with the trend during 1999-2003, the additional data for 2004 show a significant decline in daily smoking in all DHBs except for South Canterbury. From 1999 to 2004, total smoking prevalence (monthly or more often) has declined, and never smoking has increased, in all DHBs. Further monitoring is required to confirm the decline in daily smoking prevalence in some DHBs with smaller populations.

Parental Smoking Trends: 2001-2004

Parental smoking and smoking in the home are independent risk factors for daily smoking, while smoking in the home is also related to parental smoking [1]. Trends in these two risk factors for adolescent smoking were examined for the years that data are available: 2001-2004.

Trends by Ethnicity (Table 13)

In the total sample, there was no variation in the prevalence of parental smoking (by one or both parents) during 2001 to 2004. In contrast, smoking in the home declined by an absolute 3.4% from 2001 to 2004 (30.5% to 27.1%), which was a relative 12% decline adjusting for age, sex and ethnicity. The same pattern – of no consistent change in parental smoking, but a decline in smoking in the home – occurred in all ethnic groups except for Asian students where there was no change in the prevalence of smoking in the house.

Trends by School SES Decile (Table 14)

A similar pattern (as above) occurred across all school SES deciles (aside from SES deciles 7-8), with little or no change in parental smoking prevalence, and a decline in smoking in the home, from 2001 to 2004.

Trends by District Health Boards (Tables 15a – 15c)

The trends in parental smoking and smoking in the home, by DHB, need to be interpreted with caution. The small number of students in some DHBs has resulted in much greater variation in the trends for these two risk factors of student smoking. Further monitoring is required to determine the long term trend within individual DHBs.

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 (1999-2004).

Questionnaire information	1999	2000	2001	2002	2003	2004	All Years
Questionnaires returned	30,075	30,765	30,120	30,096	33,661	32,399	187,116
Missing information on:							
Sex	74	93	91	90	95	83	526
Ethnicity	593	886	288	414	353	204	2738
Cigarette smoking	376	456	343	307	286	191	2019
Questionnaires analysed	29,032	29,330	29,398	29,285	32,927	31,921	181,893

Table 2a: Distribution of Year 10 students by smoking cigarette smoking category, during 1999-2004, female and male combined.

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
<i>Smoker</i>						
Daily	15.6	15.2	13.5***	12.4***	12.1***	9.8***
Weekly	6.7	6.3	5.7***	4.7***	4.3***	4.0***
Monthly	6.3	6.4	5.6**	4.9***	4.3***	3.8***
Less often	14.3	13.6**	14.8	11.2***	10.1***	7.7***
Total \geq monthly	28.6	27.9	24.8***	22.1***	20.7***	17.6***
<i>Non-smoker</i>						
Previous	25.5	25.5	24.5**	28.3***	26.8***	27.7***
Never smoked	31.6	33.0***	35.9***	38.4***	42.5***	47.0***
(n)	(29,032)	(29,330)	(29,398)	(29,285)	(32,927)	(31,921)

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

Table 2b: Distribution of Year 10 students by smoking cigarette smoking category, during 1999-2004, by sex.

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
Girls						
<i>Smoker</i>						
Daily	17.1	16.3	15.2***	14.9***	14.2***	11.4***
Weekly	8.1	7.6	6.7***	5.8***	5.5***	5.2***
Monthly	7.2	7.5	6.5*	6.0***	5.2***	4.6***
Less often	14.7	13.8*	14.8	11.5***	11.1***	8.9***
Total \geq monthly	32.4	31.3	28.4***	26.6***	24.9***	21.2***
<i>Non-smoker</i>						
Previous	23.1	23.4	22.5	26.2***	24.9***	25.6***
Never smoked	29.9	31.5**	34.3	35.8***	39.1***	44.3***
(n)	(14,564)	(14,471)	(14,987)	(14,936)	(16,575)	(16,323)
Boys						
<i>Smoker</i>						
Daily	14.1	14.0	11.6***	9.9***	9.9***	8.1***
Weekly	5.2	5.0	4.6*	3.6***	3.2***	2.8***
Monthly	5.4	5.3	4.8*	3.8***	3.4***	2.9***
Less often	14.0	13.3	14.7	10.9***	9.0***	6.5***
Total \geq monthly	24.7	24.4	21.1***	17.4***	16.4***	13.8***
<i>Non-smoker</i>						
Previous	28.0	27.7	26.6**	30.6***	28.7	29.9***
Never smoked	33.3	34.6*	37.6***	41.2***	46.0***	49.9***
(n)	(14,468)	(14,559)	(14,411)	(14,349)	(16,352)	(15,598)

* 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 2000-2004, compared with 1999, adjusted for age and ethnicity, for the *total sample* and also by *sex*.

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
Both Sexes*						
Daily	0	-2 (-6, 2)	-14 (-17,-10)	-20 (-23,-17)	-23 (-26,-20)	-37 (-40,-34)
Total \geq monthly	0	-2 (-5, 1)	-13 (-15,-11)	-22 (-24,-20)	-27 (-29,-25)	-38 (-40,-36)
Never smoked	0	4 (2, 7)	14 (11, 16)	21 (18, 23)	33 (30, 35)	46 (43, 49)
Girls						
Daily	0	-4 (-9, 1)	-10 (-15, -6)	-13 (-17, -8)	-17 (-21,-13)	-33 (-37,-29)
Total \geq monthly	0	-3 (-6, 0)	-12 (-15, -9)	-17 (-20,-15)	-22 (-25,-20)	-34 (-36,-31)
Never smoked	0	5 (2, 9)	13 (10, 17)	19 (15, 23)	28 (25, 32)	45 (41, 49)
Boys						
Daily	0	0 (-5, 6)	-18 (-23,-13)	-29 (-33,-24)	-31 (-35,-27)	-42 (-54,-38)
Total \geq monthly	0	-1 (-5, 3)	-15 (-19,-11)	-29 (-32,-26)	-34 (-37,-31)	-44 (-46,-41)
Never smoked	0	4 (0, 7)	14 (10, 17)	22 (19, 26)	36 (33, 40)	47 (43, 51)

* Also adjusted for sex.

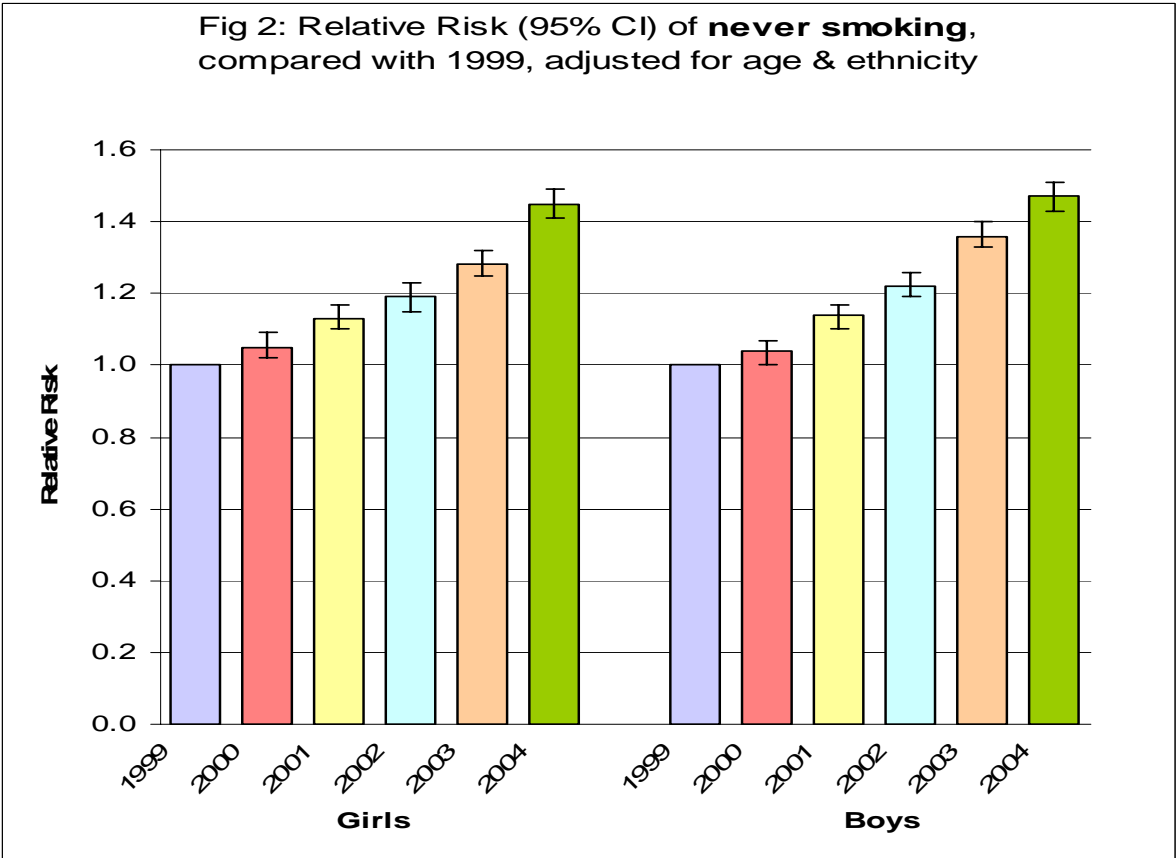
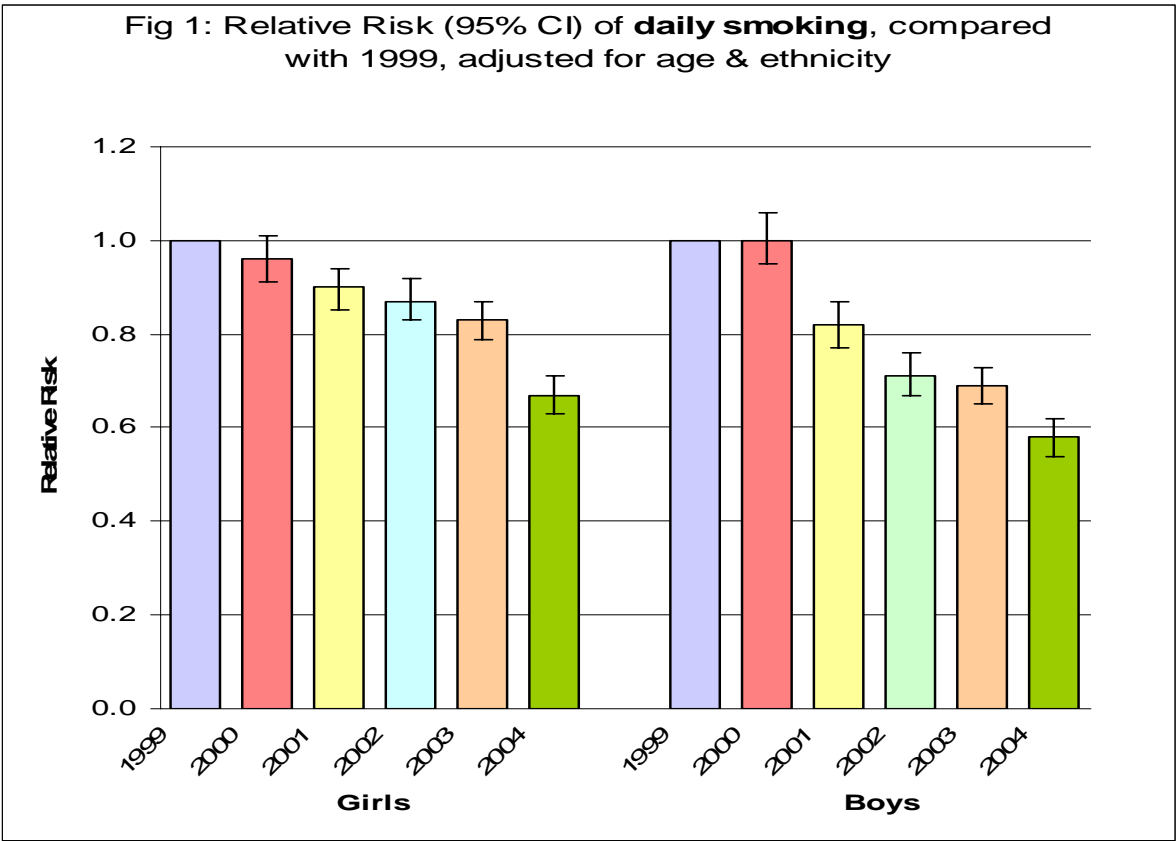


Table 4: Trends in proportion of Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by *sex and ethnicity*.

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
<i>Girls</i>						
<i>Maori</i>						
Daily	36.2	37.1	34.3	34.3	34.2	29.1***
Total ≥ monthly	50.9	51.1	47.5*	47.8*	47.4*	42.2***
Never smoked	12.4	11.1	12.4	12.3	15.0**	18.0***
(n)	(2448)	(2480)	(2574)	(2653)	(2934)	(3142)
<i>Pacific</i>						
Daily	23.0	19.4	19.5	17.6**	18.1**	13.2***
Total ≥ monthly	33.3	31.2	29.4	28.5*	26.9**	26.3***
Never smoked	31.2	33.1	31.8	30.2	32.2	37.1*
(n)	(881)	(792)	(952)	(880)	(1168)	(1108)
<i>Asian</i>						
Daily	5.9	5.1	3.2**	3.9*	4.5	2.9***
Total ≥ monthly	10.4	9.0	7.7**	7.3*	7.3**	5.9***
Never smoked	64.4	66.2	71.9***	71.7***	74.1***	75.5***
(n)	(1014)	(965)	(1176)	(1158)	(1531)	(1575)
<i>European/Other</i>						
Daily	13.1	12.2	11.4***	10.8***	9.8***	7.2***
Total ≥ monthly	30.0	28.7	25.9***	23.2***	21.1***	16.7***
Never smoked	30.6	33.0***	35.7***	38.2***	41.4***	48.2***
(n)	(10221)	(10534)	(10285)	(10245)	(10942)	(10498)
<i>Boys</i>						
<i>Maori</i>						
Daily	23.6	24.2	19.1***	16.8***	19.4***	16.2***
Total ≥ monthly	33.6	33.7	28.7***	24.9***	27.0***	24.4***
Never smoked	21.4	21.9	24.9**	25.8***	29.4***	32.3***
(n)	(2199)	(2208)	(2462)	(2241)	(2844)	(2905)
<i>Pacific</i>						
Daily	16.6	16.8	14.3	10.8***	12.5*	11.8**
Total ≥ monthly	23.7	25.8	23.0	16.5***	19.7*	17.7**
Never smoked	36.3	37.0	38.5	42.8**	44.7***	44.0***
(n)	(873)	(892)	(9042)	(1010)	(1128)	(1192)
<i>Asian</i>						
Daily	7.9	9.4	7.2	7.5	6.4	3.8***
Total ≥ monthly	13.4	14.6	11.4	11.2	10.2*	6.9***
Never smoked	59.9	59.2	63.7	64.4*	69.1***	75.1***
(n)	(1138)	(1112)	(999)	(1225)	(1645)	(1502)
<i>European/Other</i>						
Daily	12.6	12.1	10.0***	8.6***	7.6***	5.9***
Total ≥ monthly	24.2	23.3	20.0***	16.6***	14.2***	11.2***
Never smoked	32.7	34.5*	38.0***	41.6***	46.9***	51.9***
(n)	(10258)	(10347)	(10046)	(9873)	(10735)	(9999)

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

Table 5a: Percentage change in proportion of *Female* Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2004, compared with 1999, adjusted for age, by *ethnicity*.

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
<i>Maori</i>						
Daily	0	3 (-5, 11)	-5 (-11, 3)	-4 (-11, 3)	-5 (-11, 2)	-17 (-23,-10)
Total \geq monthly	0	1 (-5, 6)	-6 (-12, -1)	-6 (-11, 0)	-7 (-12, -1)	-16 (-20,-11)
Never smoked	0	-11 (-23, 4)	0 (-14, 15)	-2 (-15, 14)	20 (5, 37)	41 (23, 61)
<i>Pacific</i>						
Daily	0	-15 (-30, 2)	-15 (-29, 1)	-23 (-36, -8)	-26 (-34, -7)	-45 (-55,-32)
Total \geq monthly	0	-6 (-18, 8)	-11 (-23, 1)	-14 (-25, -1)	-19 (-29, -7)	-21 (-31, -9)
Never smoked	0	6 (-8, 21)	2 (-11, 17)	-3 (-16, 11)	3 (-10, 17)	17 (3, 33)
<i>Asian</i>						
Daily	0	-14 (-40, 24)	-45 (-63,-19)	-34 (-55, -4)	-24 (-46, 7)	-52 (-67,-29)
Total \geq monthly	0	-13 (-33, 15)	-26 (-43, -3)	-29 (-46, -7)	-29 (-45, -9)	-43 (-66,-25)
Never smoked	0	3 (-3, 10)	12 (5, 18)	11 (5, 18)	15 (9, 22)	18 (12, 24)
<i>European/Other</i>						
Daily	0	-6 (-13, 1)	-12 (-18, -5)	-16 (-22,-10)	-24 (-30,-18)	-42 (-47,-37)
Total \geq monthly	0	-4 (-8, 1)	-13 (-17, -9)	-22 (-26,-19)	-29 (-33,-26)	-43 (-46,-40)
Never smoked	0	8 (3, 12)	16 (12, 21)	24 (20, 29)	35 (30, 40)	55 (49, 61)

Table 5b: Percentage change in proportion of *Male* Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2004, compared with 1999, adjusted for age, by *ethnicity*.

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
<i>Maori</i>						
Daily	0	3 (-7, 15)	-19 (-27, -9)	-28 (-36,-19)	-17 (-25,-7)	-28 (-36,-19)
Total \geq monthly	0	1 (-7, 9)	-14 (-21, -6)	-25 (-32,-18)	-19 (-26,-12)	-25 (-31,-18)
Never smoked	0	2 (-9, 14)	16 (5, 29)	20 (8, 33)	37 (24, 51)	47 (33, 62)
<i>Pacific</i>						
Daily	0	1 (-18, 25)	-14 (-31, 8)	-34 (-47,-16)	-24 (-38,-6)	-26 (-41,-8)
Total \geq monthly	0	9 (-8, 28)	-3 (-18, 15)	-29 (-41,-15)	-16 (-29,-1)	-24 (-36,-10)
Never smoked	0	2 (-10, 15)	6 (-6, 19)	17 (4, 31)	23 (10, 37)	21 (9, 35)
<i>Asian</i>						
Daily	0	24 (-5, 63)	-6 (-30, 27)	-4 (-27, 27)	-18 (-37, 8)	-48 (-62,-28)
Total \geq monthly	0	13 (-8, 39)	-13 (-31, 10)	-16 (-32, 5)	-22 (-37, -5)	-45 (-66,-30)
Never smoked	0	-2 (-9, 5)	6 (-1, 13)	7 (1, 14)	15 (8, 22)	24 (17, 31)
<i>European/Other</i>						
Daily	0	-3 (-9, 5)	-19 (-25,-13)	-31 (-36 -25)	-39 (-44,-34)	-51 (-55,-46)
Total \geq monthly	0	-3 (-7, 2)	-17 (-21,-12)	-31 (-35,-27)	-41 (-44,-37)	-52 (-55,-49)
Never smoked	0	5 (1, 9)	16 (12, 20)	27 (22, 31)	43 (38, 48)	55 (50, 60)

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

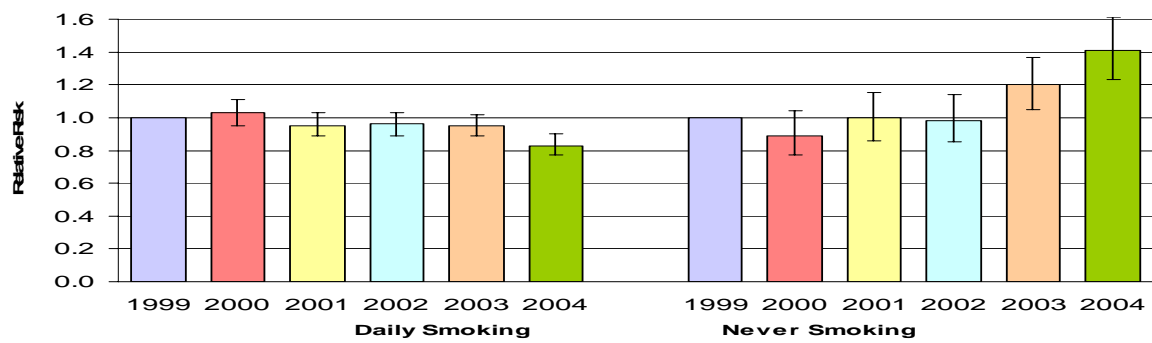


Fig 4: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Pacific girls**

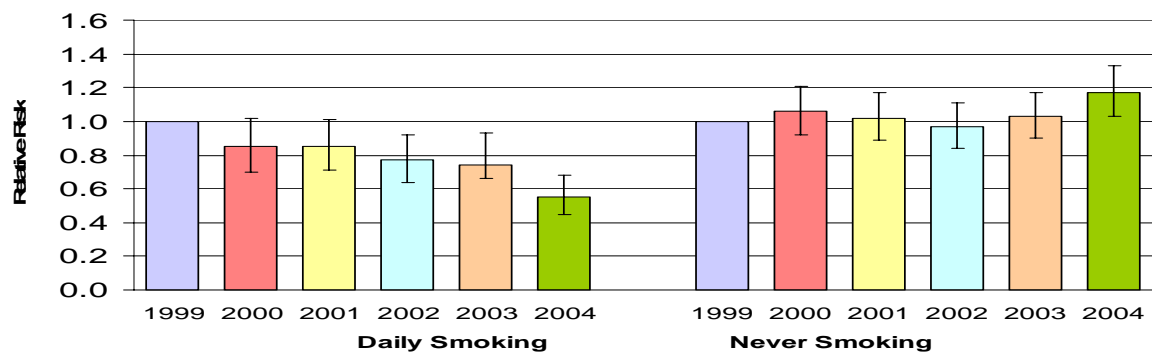


Fig 5: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Asian girls**

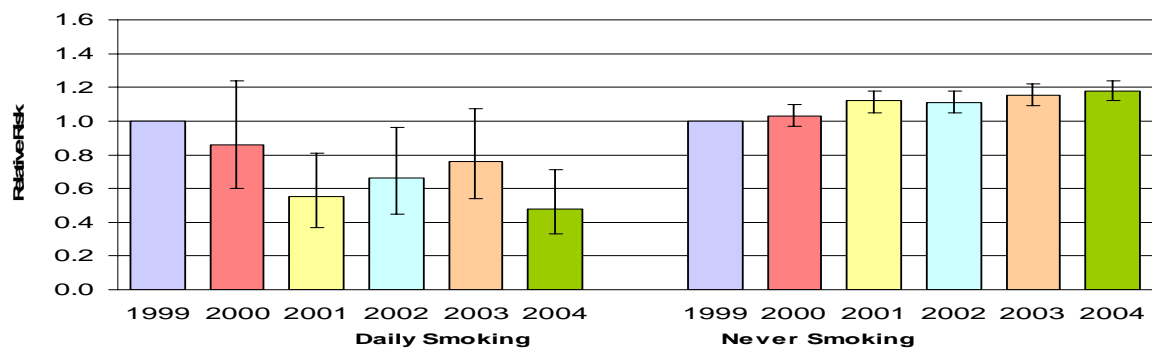


Fig 6: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **European girls**

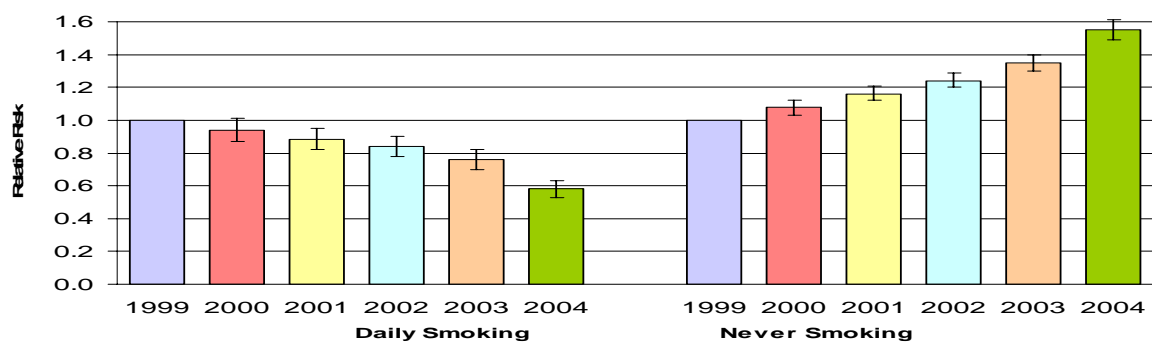


Fig 7: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Maori boys**

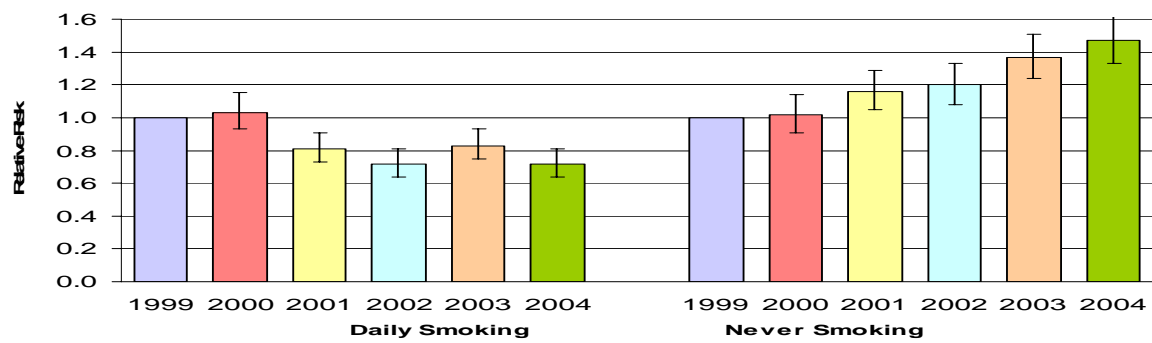


Fig 8: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Pacific boys**

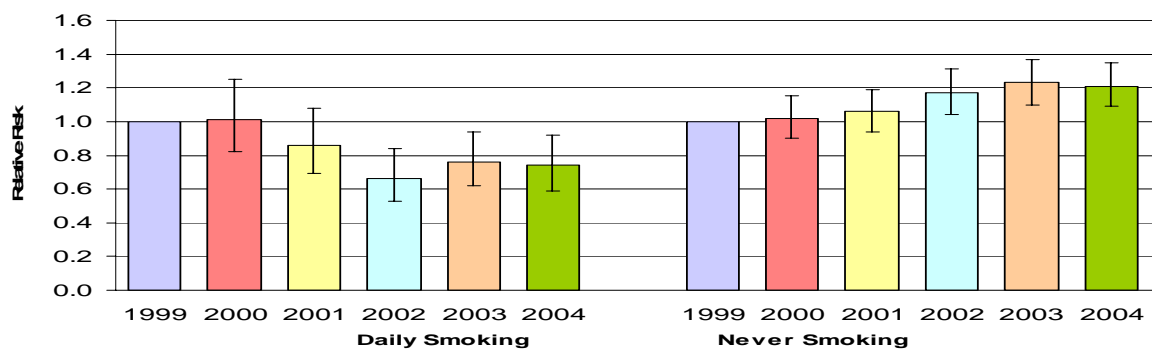


Fig 9: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **Asian boys**

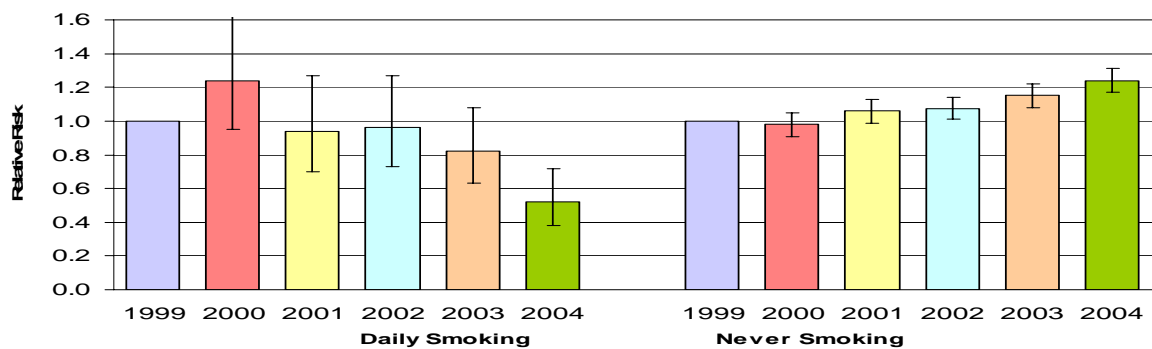


Fig 10: Relative Risk (95% CI) of daily & never smoking, compared with 1999, adjusted for age - **European boys**

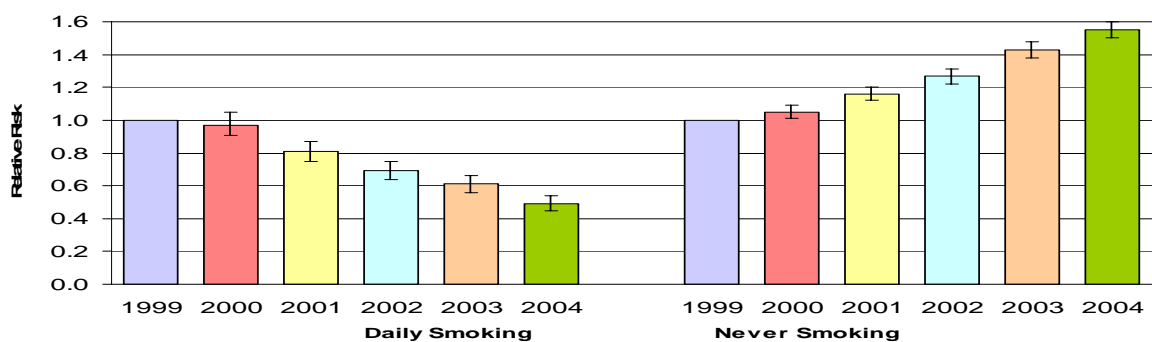


Table 6: Age adjusted relative risks of daily smoking associated with ethnicity, compared with European/Other students, by *sex and year of survey*.

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)
2004	4.04 (3.70, 4.41)	1.83 (1.55, 2.16)	0.40 (0.30, 0.53)
<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)
2004	2.73 (2.44, 3.06)	1.98 (1.66, 2.35)	0.63 (0.49, 0.83)

Table 7a: Trends in proportion of *Female* Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by *school SES decile*.

SES	Smoking Category	1999	2000	2001	2002	2003	2004
		%	%	%	%	%	%
1-2 (low)	Daily	28.1	26.7	27.5	29.7	29.4	26.7
	Total \geq monthly	36.8	39.6	39.0	41.5*	38.5	38.8
	Never smoked	23.5	23.4	23.8	22.1	25.0	25.3*
	(n)	(1225)	(1153)	(1245)	(1368)	(1375)	(1391)
3-4	Daily	23.4	22.3	21.6*	20.0**	20.5***	16.2***
	Total \geq monthly	37.9	36.1	33.0***	31.2***	31.1***	25.8***
	Never smoked	25.3	26.1	29.9***	29.6**	30.0***	37.6***
	(n)	(2363)	(2418)	(2432)	(2347)	(2906)	(3806)
5-6	Daily	17.9	19.3	17.0	16.1*	15.0***	12.4***
	Total \geq monthly	34.4	33.9	30.3***	28.2***	26.4***	23.0***
	Never smoked	26.6	28.4*	31.0***	32.3***	35.4***	40.2***
	(n)	(3850)	(3689)	(3708)	(3742)	(4131)	(3724)
7-8	Daily	14.9	14.9	12.2**	12.8**	12.3**	8.3***
	Total \geq monthly	30.0	32.2	27.1**	25.2***	22.8***	18.0***
	Never smoked	32.4	30.9	34.1	37.7***	39.9***	47.0***
	(n)	(3640)	(3621)	(3404)	(3585)	(3529)	(3949)
9-10	Daily	10.3	8.0**	8.9	7.1***	6.5***	4.6***
	Total \geq monthly	27.4	22.9***	22.1***	18.4***	17.0***	13.3***
	Never smoked	36.5	40.7**	42.8***	45.9***	51.6***	57.0***
	(n)	(3415)	(3821)	(4080)	(3807)	(4519)	(4019)

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

Table 7b: Trends in proportion of *Male* Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by *school SES decile*.

SES	Smoking Category	1999	2000	2001	2002	2003	2004
		%	%	%	%	%	%
1-2 (low)	Daily	19.0	17.6	16.9	15.0**	16.9	15.3*
	Total \geq monthly	27.4	24.6	25.0	20.3***	23.5*	21.8**
	Never smoked	34.0	32.0	35.8	38.5*	39.7**	40.0**
	(n)	(1204)	(1066)	(1379)	(1361)	(1535)	(1612)
3-4	Daily	15.4	16.1	12.9**	11.8***	13.3*	10.4***
	Total \geq monthly	24.0	24.8	20.7**	18.5***	19.0***	16.1***
	Never smoked	32.4	33.3	38.9***	40.5***	43.0***	46.6***
	(n)	(2324)	(2814)	(2600)	(2581)	(2226)	(2555)
5-6	Daily	15.5	14.9	13.3*	10.7***	9.9***	7.8***
	Total \geq monthly	26.0	25.7	22.5**	19.2***	17.2***	13.4***
	Never smoked	30.7	32.1	34.1**	37.8***	43.4***	45.7***
	(n)	(3562)	(3234)	(3289)	(2898)	(4086)	(3641)
7-8	Daily	13.6	12.6	10.1***	9.6***	9.2***	7.0***
	Total \geq monthly	25.0	23.3	20.0***	17.3***	16.2***	12.1***
	Never smoked	32.3	35.2*	37.9***	41.3***	44.5***	52.0***
	(n)	(3735)	(4123)	(3625)	(4299)	(4290)	(4124)
9-10	Daily	10.9	12.3*	8.4***	6.1***	5.6***	4.7***
	Total \geq monthly	22.9	24.2	19.3***	13.8***	11.3***	10.7***
	Never smoked	37.3	38.7	40.6**	45.4***	54.5***	58.5***
	(n)	(3568)	(3259)	(3447)	(3194)	(3908)	(3528)

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

Table 8a: Percentage change in proportion of *Female* Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2004, compared with 1999, adjusted for age and ethnicity, by *school SES decile*.

SES	Smoking Category	1999	2000	2001	2002	2003	2004
		%	%	%	%	%	%
1-2 (low)	Daily	0	-7 (-18, 6)	-4 (-15, 9)	3 (-8, 16)	3 (-8, 16)	-8 (-19, 4)
	Total \geq monthly	0	6 (-4, 17)	5 (-5, 16)	10 (0, 21)	4 (-6, 14)	3 (-7, 13)
	Never smoked	0	3 (-10, 19)	1 (-12, 16)	-1 (-14, 13)	7 (-6, 22)	14 (0, 30)
3-4	Daily	0	-7 (-16, 3)	-12 (-20, -2)	-14 (-23, -5)	-16 (-24, -7)	-31 (-38,-24)
	Total \geq monthly	0	-6 (-13, 1)	-15 (-21, -8)	-17 (-23,-10)	-20 (-25,-14)	-32 (-37,-27)
	Never smoked	0	7 (-3, 17)	23 (12, 34)	15 (5, 26)	22 (12, 32)	51 (39, 63)
5-6	Daily	0	7 (-2, 18)	-5 (-14, 5)	-12 (-20, -3)	-16 (-23, -7)	-30 (-37,-22)
	Total \geq monthly	0	-3 (-8, 4)	-12 (-17, -6)	-19 (-24,-13)	-22 (-27,-17)	-32 (-37,-27)
	Never smoked	0	9 (1, 17)	16 (9, 25)	23 (15, 32)	31 (22, 39)	47 (38, 57)
7-8	Daily	0	0 (10, 11)	-16 (-26, -6)	-14 (-23, -4)	-17 (-26, -6)	-43 (-50,-35)
	Total \geq monthly	0	7 (0, 14)	-9 (-16, -2)	-16 (-22,-10)	-23 (-29,-17)	-39 (-44,-34)
	Never smoked	0	-4 (-11, 2)	5 (-2, 12)	16 (9, 23)	22 (14, 29)	42 (34, 50)
9-10	Daily	0	-20 (-31, -8)	-11 (-22, 2)	-29 (-39, -8)	-37 (-45,-27)	-53 (-60,-44)
	Total \geq monthly	0	-15 (-22, -8)	-17 (-23,-10)	-31 (-37,-25)	-36 (-41,-30)	-49 (-53,-43)
	Never smoked	0	10 (4, 16)	13 (7, 20)	23 (16, 29)	36 (30, 43)	49 (42, 57)

Table 8b: Percentage change in proportion of *Male* Year 10 students smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2000-2004, compared with 1999, adjusted for age and ethnicity, by *school SES decile*.

SES	Smoking Category	1999	2000	2001	2002	2003	2004
		%	%	%	%	%	%
1-2 (low)	Daily	0	-8 (-22, 10)	-12 (-25, 4)	-21 (-33, -6)	-11 (-24, 4)	-17 (-30, -2)
	Total \geq monthly	0	-11 (-23, 2)	-9 (-20, 3)	-26 (-36, -15)	-14 (-25, -3)	-19 (-29, -8)
	Never smoked	0	-4 (-14, 8)	6 (-4, 18)	14 (3, 26)	18 (7, 30)	18 (7, 30)
3-4	Daily	0	5 (-8, 19)	-19 (-29, 7)	-23 (-33, -11)	-16 (-27, -3)	-33 (-42, -22)
	Total \geq monthly	0	3 (-6, 14)	-16 (-24, -6)	-22 (-30, -13)	-22 (-30, -13)	-33 (-40, -24)
	Never smoked	0	3 (-5, 11)	24 (15, 33)	24 (15, 33)	34 (25, 45)	45 (35, 56)
5-6	Daily	0	3 (-13, 9)	-13 (-23, -3)	-31 (-39, -21)	-37 (-44, -29)	-50 (-56, -42)
	Total \geq monthly	0	0 (-8, 8)	-13 (-20, -5)	-26 (-32, -19)	-34 (-39, -28)	-47 (-52, -42)
	Never smoked	0	3 (-4, 11)	11 (4, 19)	22 (14, 31)	40 (32, 49)	46 (38, 55)
7-8	Daily	0	-6 (-16, 6)	-25 (-34, -15)	-29 (-37, -20)	-33 (-41, -24)	-47 (-54, -39)
	Total \geq monthly	0	-6 (-13, 2)	-20 (-26, -12)	-30 (-36, -23)	-35 (-41, -30)	-51 (-56, -46)
	Never smoked	0	8 (1, 15)	17 (10, 25)	27 (20, 35)	37 (30, 45)	59 (51, 68)
9-10	Daily	0	15 (1, 31)	-22 (-32, -10)	-42 (-50, -31)	-47 (-55, -38)	-54 (-62, -45)
	Total \geq monthly	0	7 (-2, 17)	-15 (-23, -7)	-38 (-44, -31)	-48 (-54, -43)	-50 (-55, -44)
	Never smoked	0	3 (-3, 9)	9 (3, 15)	19 (12, 26)	39 (32, 46)	46 (39, 54)

Table 9: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2001-2004, by *parental smoking*.

Parental Smoking	Student Smoking	2001	2002	2003	2004
		%	%	%	%
Both	Daily	31.6	31.4	29.7	24.8
	Total \geq monthly	44.1	42.1	41.0	36.2
	Never smoked	18.2	18.9	20.1	23.7
	(n)	(3977)	(3971)	(4656)	(4764)
One	Daily	18.3	16.5	15.7	12.8
	Total \geq monthly	31.2	28.2	25.9	22.2
	Never smoked	26.1	28.8	33.2	37.0
	(n)	(7807)	(7331)	(8526)	(8185)
Neither	Daily	7.2	6.5	6.2	4.6
	Total \geq monthly	17.5	15.1	13.4	10.7
	Never smoked	44.3	46.5	52.0	57.4
	(n)	(17487)	(17387)	(19300)	(18627)
<i>Absolute change from 2001</i>					
Both	Daily	0	-0.2	-1.9*	-6.8***
	Total \geq monthly	0	-2.0*	-3.1**	-7.9***
	Never smoked	0	0.7	1.9	5.5***
One	Daily	0	-1.8**	-2.6***	-5.5***
	Total \geq monthly	0	-3.0***	-5.3***	-9.0***
	Never smoked	0	2.7***	7.1***	10.9***
Neither	Daily	0	-0.7*	-1.0***	-2.6***
	Total \geq monthly	0	-2.4***	-4.1***	-6.8***
	Never smoked	0	2.2***	7.7***	13.1***
<i>Percent change from 2001#</i>					
Both	Daily	0	-1 (-8, 5)	-7 (-13, -1)	-21 (-26, -15)
	Total \geq monthly	0	-5 (-10, -1)	-8 (-12, -3)	-17 (-21, -13)
	Never smoked	0	5 (-4, 15)	5 (-4, 15)	28 (18, 40)
One	Daily	0	-10 (-16, 3)	-12 (-18, -6)	-28 (-33, -23)
	Total \geq monthly	0	-10 (-14, -5)	-15 (-19, -11)	-27 (-31, -23)
	Never smoked	0	10 (4, 15)	23 (17, 29)	37 (30, 43)
Neither	Daily	0	-9 (-16, -2)	-15 (-21, -8)	-36 (-42, -31)
	Total \geq monthly	0	-14 (-18, -10)	-23 (-27, -19)	-38 (-41, -35)
	Never smoked	0	5 (3, 7)	16 (14, 19)	28 (25, 30)

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

adjusted for age, sex and ethnicity

Table 10: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 2001-2004, by whether *people smoke in the house*.

People Smoke in House	Student Smoking	2001	2002	2003	2004
		%	%	%	%
Yes	Daily	24.2	24.2	24.4	18.2
	Total \geq monthly	37.5	35.7	36.1	28.9
	Never smoked	22.1	24.1	24.8	31.0
	(n)	(8848)	(7656)	(9619)	(8651)
No	Daily	8.8	7.7	6.7	6.6
	Total \geq monthly	19.3	16.6	14.0	13.3
	Never smoked	41.9	44.3	50.2	53.0
	(n)	(20127)	(20549)	(22556)	(23270)
<i>Absolute change from 2001</i>					
Yes	Daily	0	0	0.2	-6.0***
	Total \geq monthly	0	-1.8*	-1.4*	-8.6***
	Never smoked	0	2.0**	2.7***	8.9***
No	Daily	0	-1.1***	-2.1***	-2.2***
	Total \geq monthly	0	-2.7***	-5.3***	-6.0***
	Never smoked	0	2.4***	8.3***	11.1***
<i>Percent change from 2001#</i>					
Yes	Daily	0	0 (-6, 5)	0 (-5, 5)	-23 (-28,-19)
	Total \geq monthly	0	-5 (-8, -1)	-4 (-8, -1)	-21 (-24,-18)
	Never smoked	0	8 (2, 14)	11 (5, 17)	35 (28, 42)
No	Daily	0	-12 (-18, -6)	-23 (-28,-18)	-26 (-31,-21)
	Total \geq monthly	0	-14 (-17,-10)	-26 (-30,-23)	-31 (-34,-28)
	Never smoked	0	5 (3, 8)	18 (16, 20)	26 (23, 28)

* 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 11a: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by 2004 district health board (DHB).

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
Northland DHB						
Daily	17.0	18.4	16.8	14.5	15.9	14.2*
Total \geq monthly	29.2	31.1	28.0	24.7*	25.9	23.2***
Never smoked	26.7	28.1	28.4	30.3	32.1**	35.9***
(n)	(1147)	(1326)	(1288)	(1044)	(1200)	(1241)
Waitemata DHB						
Daily	14.5	12.8*	11.9**	9.5***	8.7***	7.0***
Total \geq monthly	28.3	26.1*	22.2***	17.7***	17.2***	13.7***
Never smoked	35.9	38.6**	41.6***	45.2***	49.3***	54.1***
(n)	(3066)	(2978)	(2804)	(2875)	(3496)	(3114)
Auckland DHB						
Daily	12.6	10.6	11.1	7.7***	8.3***	4.3***
Total \geq monthly	24.0	23.3	24.4	16.6***	16.1***	11.0***
Never smoked	40.2	39.3	40.8	47.0***	51.1***	55.8***
(n)	(3028)	(2231)	(2327)	(2337)	(3301)	(2312)
Counties-Manukau DHB						
Daily	17.2	13.2***	12.2***	14.3***	12.3***	9.5***
Total \geq monthly	27.2	24.5	21.5***	24.0**	19.2***	16.2***
Never smoked	37.7	38.7	42.3**	41.6***	51.5***	52.4***
(n)	(2311)	(2567)	(2784)	(2618)	(3100)	(3487)

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

Table 11b: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by 2004 district health board (DHB).

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
Waikato DHB						
Daily	13.9	15.6*	15.3	14.2	13.2	10.3***
Total \geq monthly	27.0	29.8*	28.1	25.6	23.0***	18.2***
Never smoked	28.7	30.6	33.0***	35.5***	39.5***	45.7***
(n)	(2786)	(2784)	(2613)	(2982)	(3432)	(3181)
Lakes District DHB						
Daily	21.1	26.2*	20.0	21.0	18.5	12.1***
Total \geq monthly	31.9	35.9	29.3	30.8	31.3	20.8***
Never smoked	22.7	21.9	27.8**	27.9**	31.0***	41.1***
(n)	(797)	(657)	(782)	(756)	(693)	(679)
Bay of Plenty DHB						
Daily	16.5	19.7	12.6***	12.9***	16.8	12.8***
Total \geq monthly	30.1	30.5	23.1***	23.2***	24.9***	21.3***
Never smoked	29.6	26.9	36.2***	34.7***	35.5***	41.1***
(n)	(1282)	(1186)	(1608)	(1683)	(1170)	(1960)
Tairāwhiti DHB						
Daily	25.7	20.1	20.3	21.2	19.6	19.2*
Total \geq monthly	39.7	28.7	29.7	30.5	28.6*	24.4***
Never smoked	22.3	21.2	30.3	22.6	35.5*	37.0**
(n)	(292)	(279)	(360)	(358)	(276)	(308)

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

Table 11c: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by 2004 district health board (DHB).

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
Taranaki DHB						
Daily	12.3	13.8	15.0*	7.4*	10.6	7.2***
Total \geq monthly	22.4	25.7*	25.2*	12.6***	18.0*	15.0***
Never smoked	34.4	31.4	34.7	50.2***	43.8***	49.1***
(n)	(796)	(1047)	(727)	(707)	(1170)	(1147)
Hawkes Bay DHB						
Daily	16.4	16.5	18.5	15.1	12.3***	13.1*
Total \geq monthly	33.1	31.0	29.9	28.0***	22.8***	21.9***
Never smoked	23.5	28.0*	29.0***	30.6***	35.9***	39.7***
(n)	(1376)	(1288)	(1209)	(1180)	(1154)	(1272)
Wanganui DHB						
Daily	18.8	19.5	10.9***	13.1*	14.7**	14.9**
Total \geq monthly	30.2	31.8	20.5**	19.7**	23.2***	24.4**
Never smoked	28.4	28.6	36.4*	35.5	38.4***	37.1***
(n)	(602)	(441)	(341)	(259)	(756)	(377)
Mid-Central DHB						
Daily	15.3	13.6	12.8	10.7***	13.2	9.9***
Total \geq monthly	27.7	23.6	24.1*	19.8***	22.4***	20.0***
Never smoked	32.0	35.5	33.9	38.2***	37.8***	43.7***
(n)	(1323)	(1313)	(1076)	(1220)	(1315)	(1301)

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

Table 11d: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by 2004 district health board (DHB).

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
Hutt Valley DHB						
Daily	16.7	15.2	13.9	13.9	15.6	10.7***
Total \geq monthly	29.0	26.4	24.0**	20.7***	22.4***	18.0***
Never smoked	31.8	35.3	38.0**	37.9**	39.3***	51.4***
(n)	(1057)	(1178)	(1336)	(1047)	(1074)	(1425)
Capital-Coast DHB						
Daily	14.8	13.4	13.0	9.8***	11.8**	9.0***
Total \geq monthly	24.5	25.0	23.6	18.2***	19.6***	17.4***
Never smoked	33.8	37.8	38.2**	43.4***	43.0***	50.3***
(n)	(1273)	(1926)	(1821)	(2026)	(1972)	(1967)
Wairarapa DHB						
Daily	18.8	16.7	16.3	16.5	13.3**	13.4*
Total \geq monthly	33.3	31.6	31.6	27.3	19.8***	22.5***
Never smoked	27.2	30.2	28.8	33.0	36.7**	35.5**
(n)	(393)	(490)	(393)	(370)	(483)	(521)
Nelson-Marlborough DHB						
Daily	13.9	15.1	10.5*	9.7**	8.9***	8.1***
Total \geq monthly	25.9	28.3	24.0	19.8***	17.7***	14.5***
Never smoked	33.4	32.7	37.3	39.8**	42.3***	52.0***
(n)	(1244)	(1137)	(1145)	(1355)	(1552)	(1082)

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

Table 11e: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by 2004 district health board (DHB).

Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
West Coast DHB						
Daily	22.1	16.1	17.7	11.9**	13.4**	12.0**
Total \geq monthly	35.4	32.9	27.4*	18.1***	23.0***	19.4***
Never smoked	26.2	18.7	25.1	35.0*	32.9	39.1**
(n)	(263)	(155)	(299)	(243)	(292)	(299)
Canterbury DHB						
Daily	16.3	14.4*	12.3***	12.8**	11.1***	9.7***
Total \geq monthly	32.3	27.8***	25.3***	22.9***	20.4***	18.4***
Never smoked	29.1	31.9*	34.3***	35.5***	42.2***	44.9***
(n)	(3055)	(3331)	(3660)	(3293)	(3741)	(3520)
South Canterbury DHB						
Daily	13.7	16.2	12.0	13.6	12.8	10.4
Total \geq monthly	27.1	27.4	25.0	23.5	20.4**	17.4***
Never smoked	27.6	30.5	38.7**	35.2*	39.3***	44.1***
(n)	(424)	(555)	(517)	(514)	(603)	(565)
Otago DHB						
Daily	15.8	18.1	12.5*	12.9*	12.5*	9.2***
Total \geq monthly	30.5	33.6	23.8***	24.5***	21.5***	16.5***
Never smoked	29.6	29.2	33.3	36.1***	39.3***	43.0***
(n)	(1621)	(1731)	(1686)	(1607)	(1473)	(1472)

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

Table 11f: Trends in proportion of Year 10 students (male & female) smoking cigarettes daily, total smoking monthly or more often, or never smoked, during 1999-2004, by 2004 district health board (DHB).

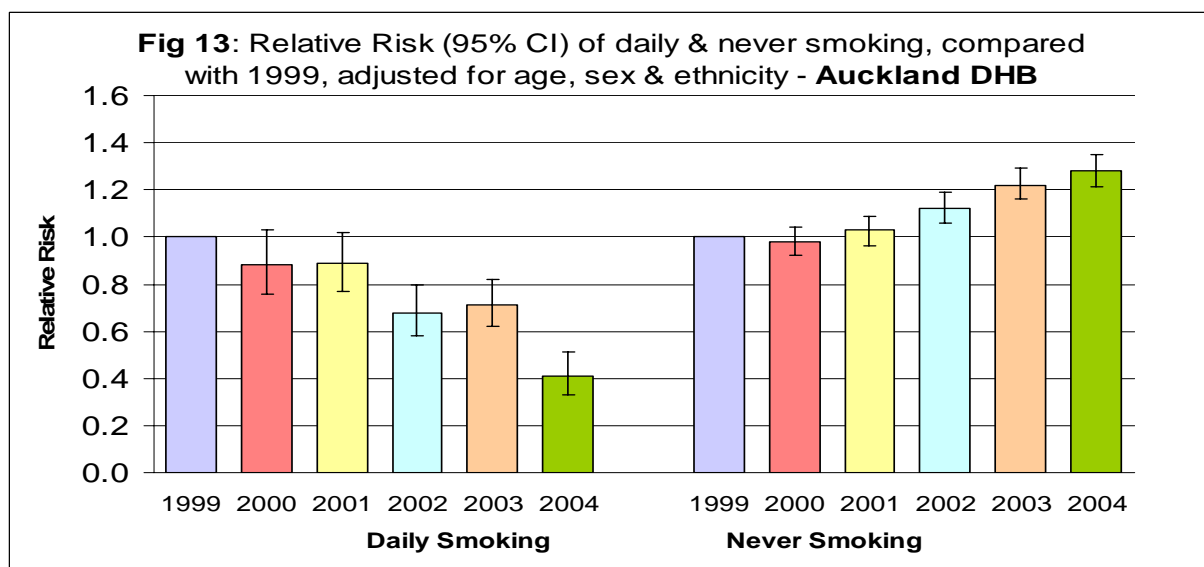
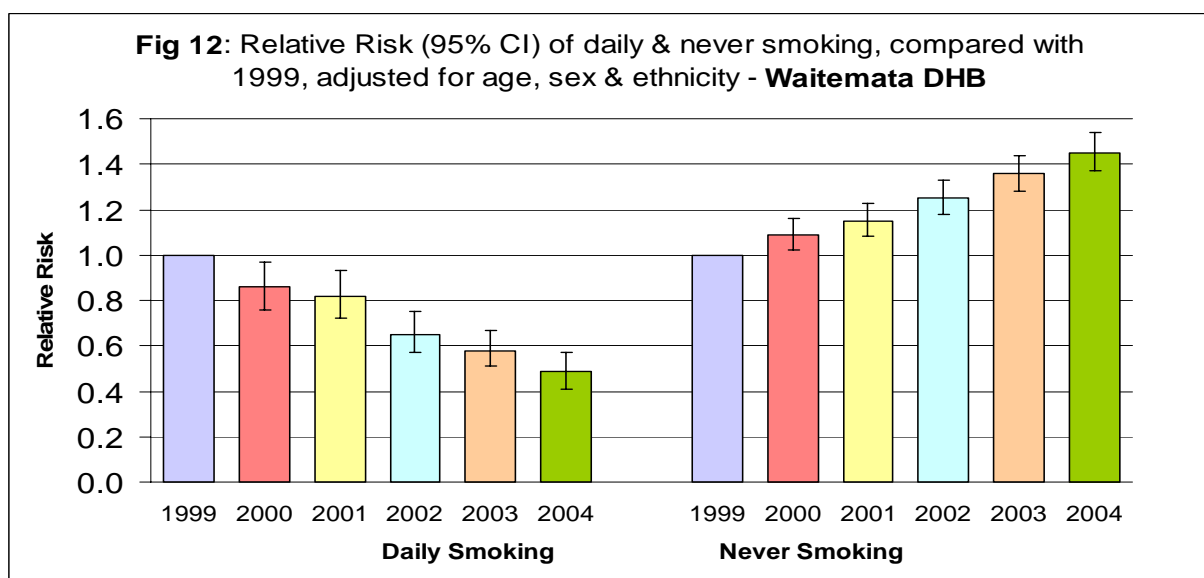
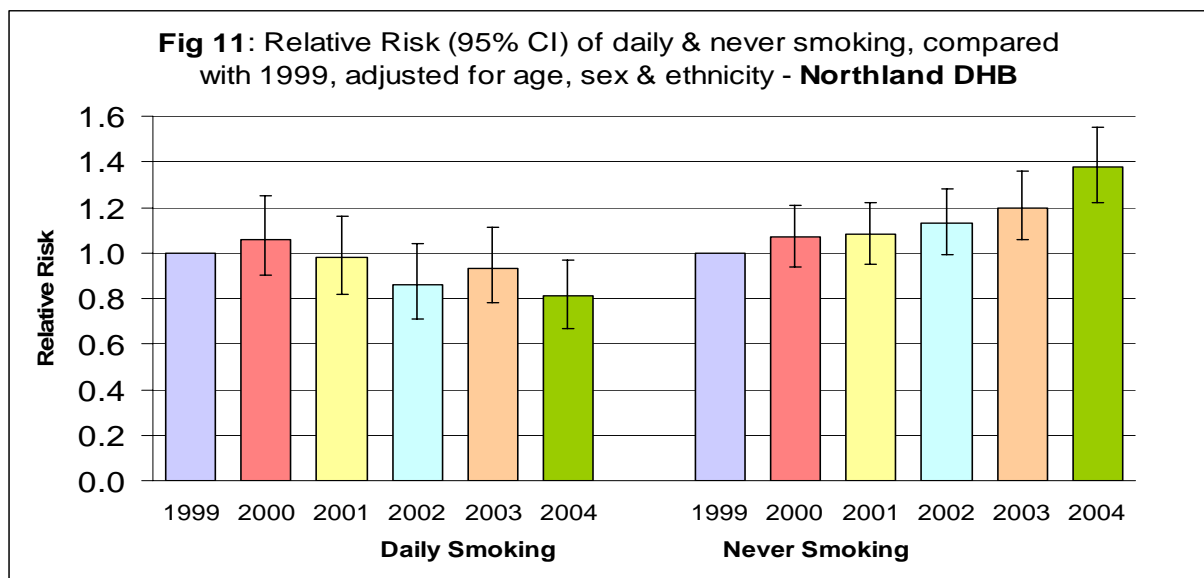
Smoking Category	1999	2000	2001	2002	2003	2004
	%	%	%	%	%	%
Southland DHB						
Daily	16.4	18.2	14.5	16.2	18.0	11.6**
Total \geq monthly	31.5	32.1	23.2***	26.8**	26.4*	19.8***
Never smoked	24.7	29.6*	32.0**	34.4***	32.5***	40.2***
(n)	(896)	(730)	(622)	(811)	(674)	(691)

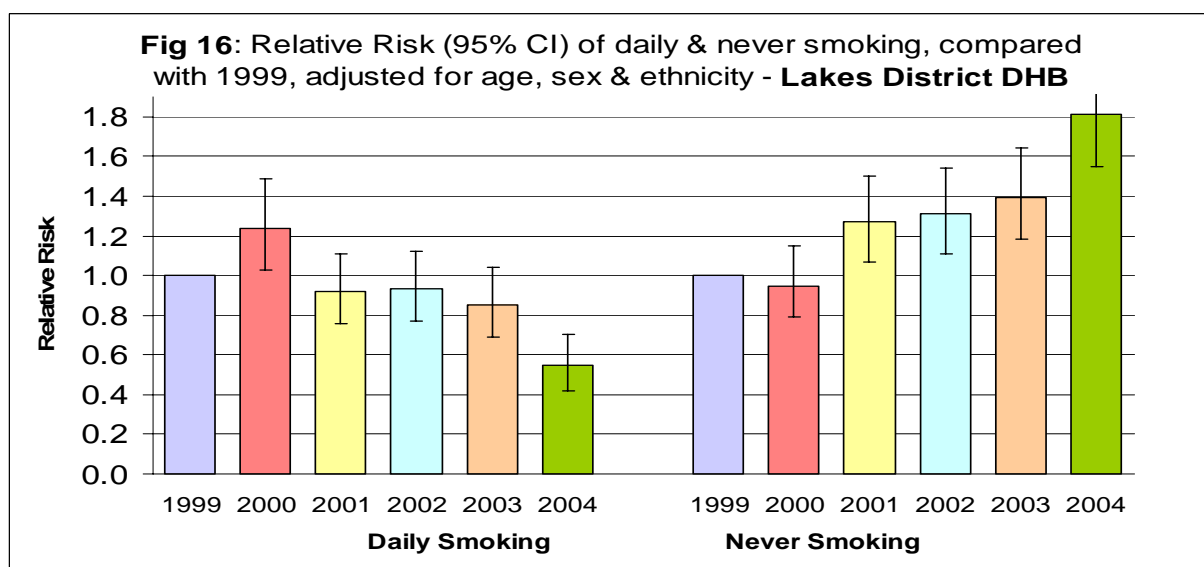
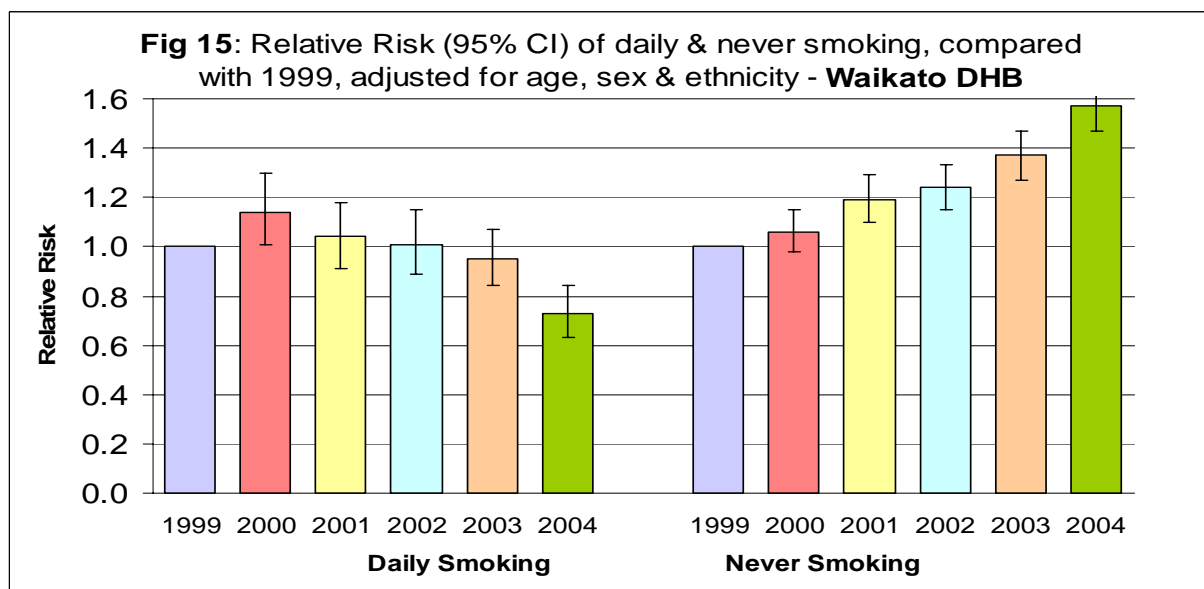
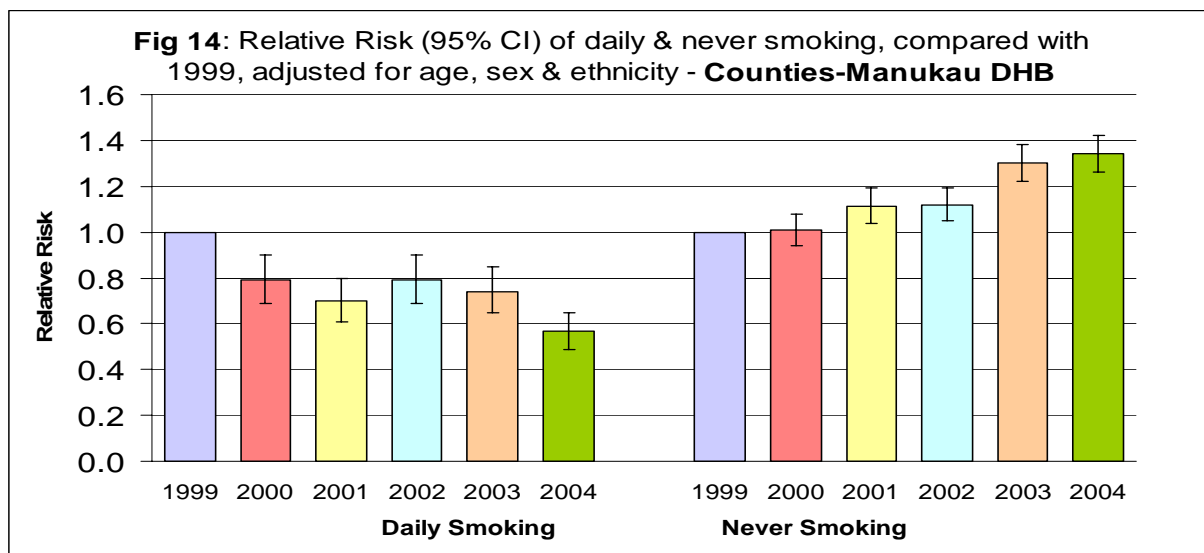
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, compared with 1999, adjusted for age, sex and ethnicity

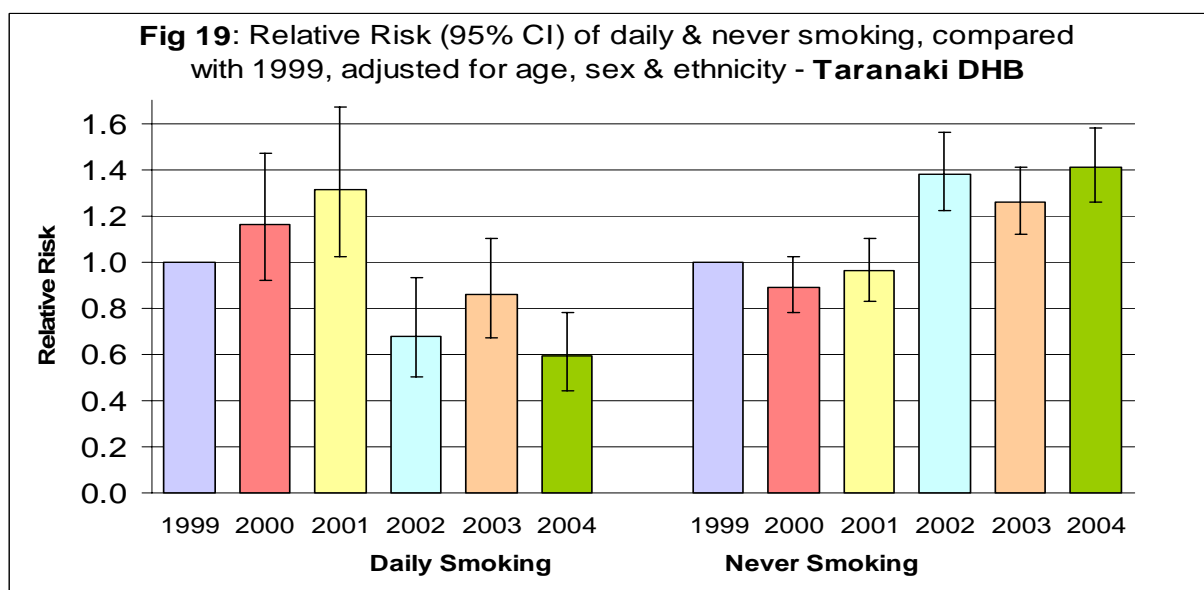
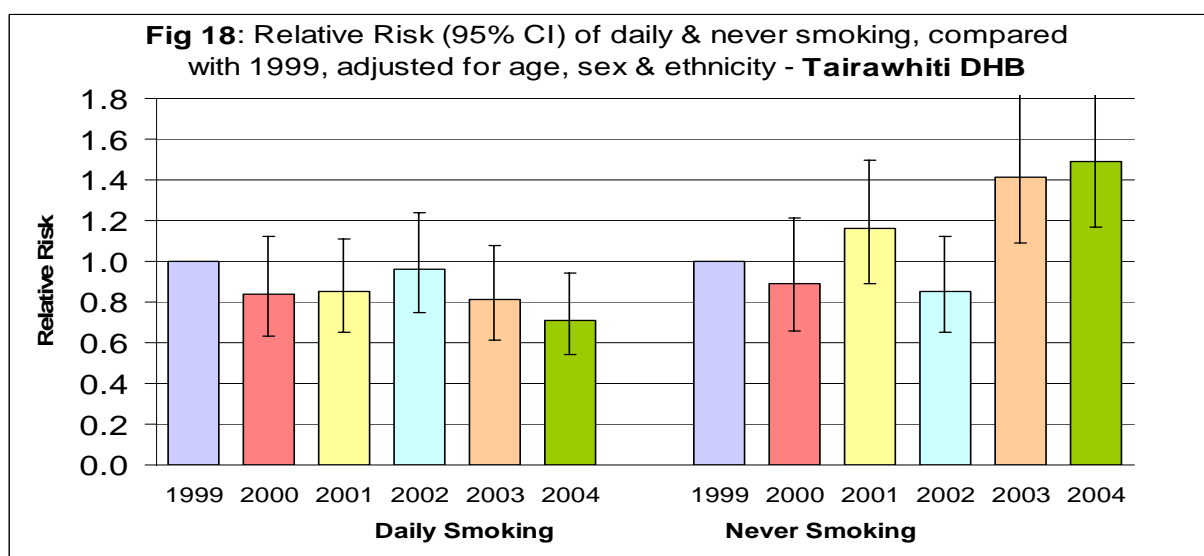
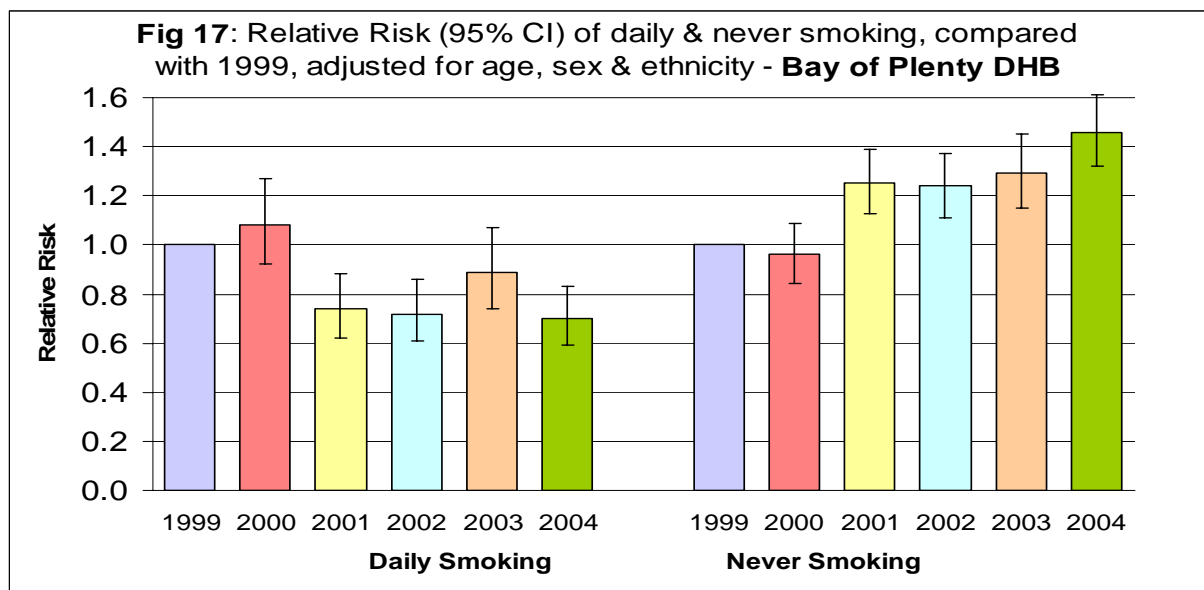
Table 12: Summary of trends in smoking prevalence, by District Health Board (1999-2004).

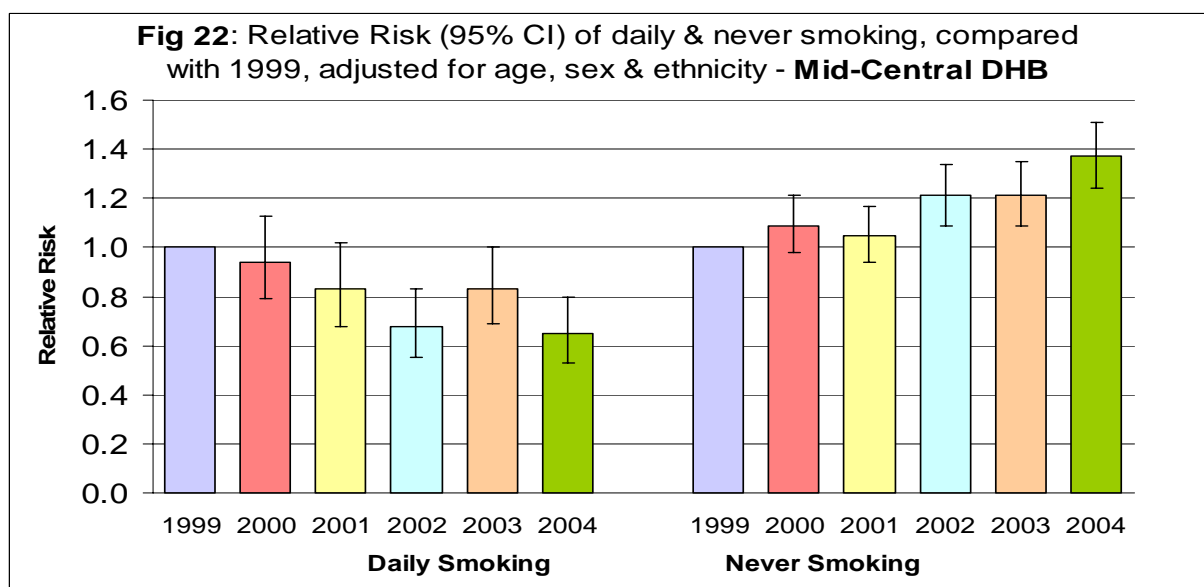
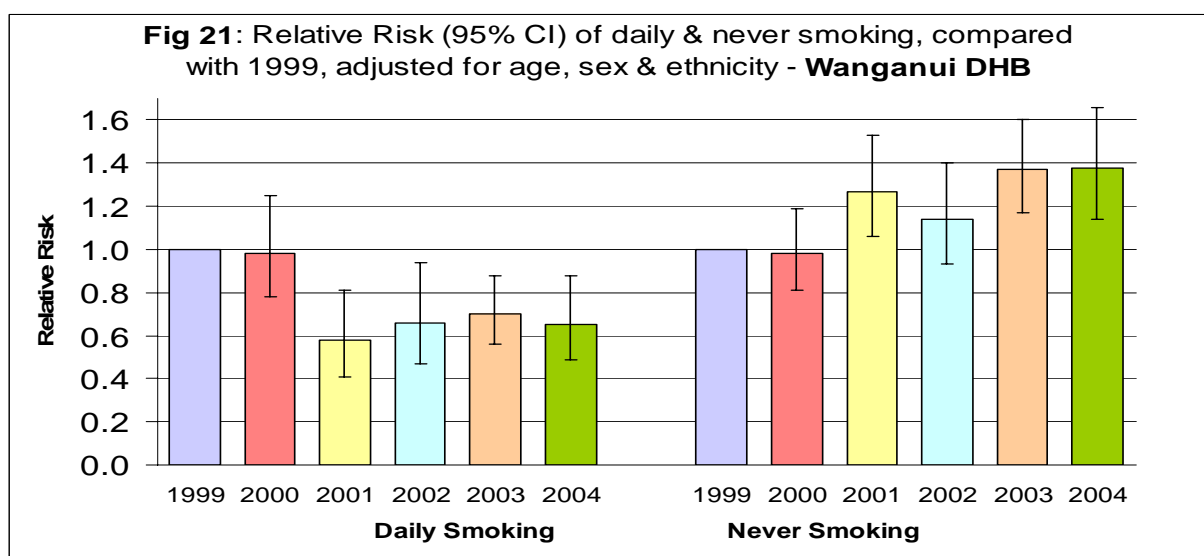
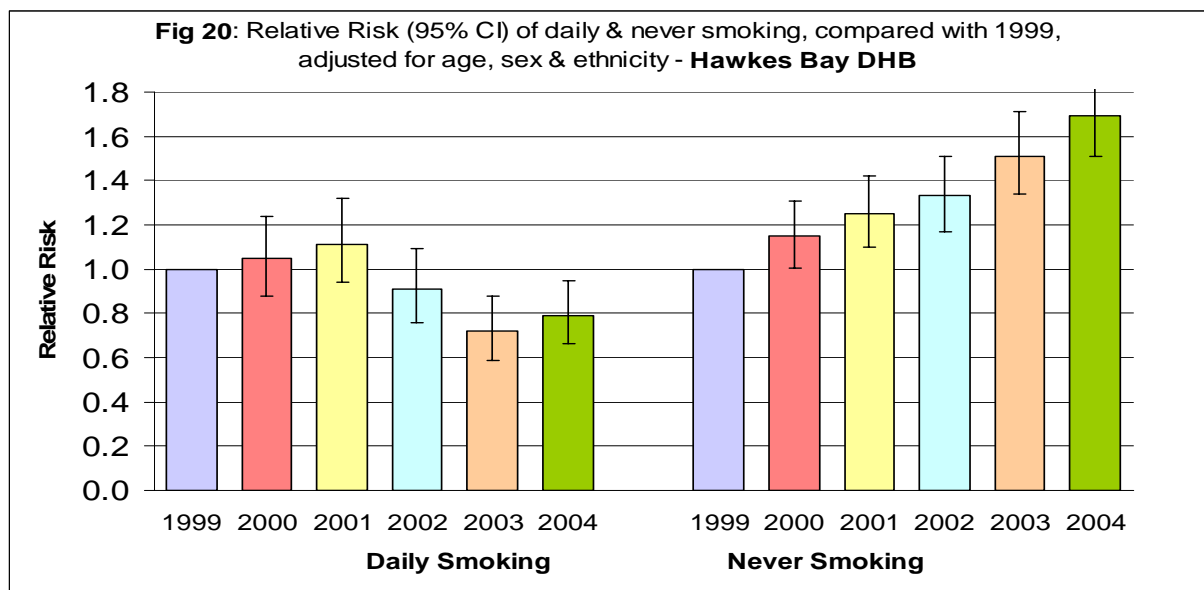
District Health Board	N 1999-2004	Daily	Total ≥Monthly	Never smokers
Northland	7246	↓	↓	↑
Waitemata	18,333	↓	↓	↑
Auckland	15,536	↓	↓	↑
Counties-Manukau	16,867	↓	↓	↑
Waikato	17,778	↓	↓	↑
Lakes District	4364	↓	↓	↑
Bay of Plenty	8889	↓	↓	↑
Tairāwhiti	1873	↓	↓	↑
Taranaki	5594	↓	↓	↑
Hawkes Bay	7479	↓	↓	↑
Wanganui	2776	↓	↓	↑
Mid-Central	7548	↓	↓	↑
Hutt Valley	7117	↓	↓	↑
Capital-Coast	10,985	↓	↓	↑
Wairarapa	2650	↓	↓	↑
Nelson-Marlborough	7515	↓	↓	↑
West Coast	1551	↓	↓	↑
Canterbury	20,600	↓	↓	↑
South Canterbury	3178	↔	↓	↑
Otago	9590	↓	↓	↑
Southland	4424	↓	↓	↑

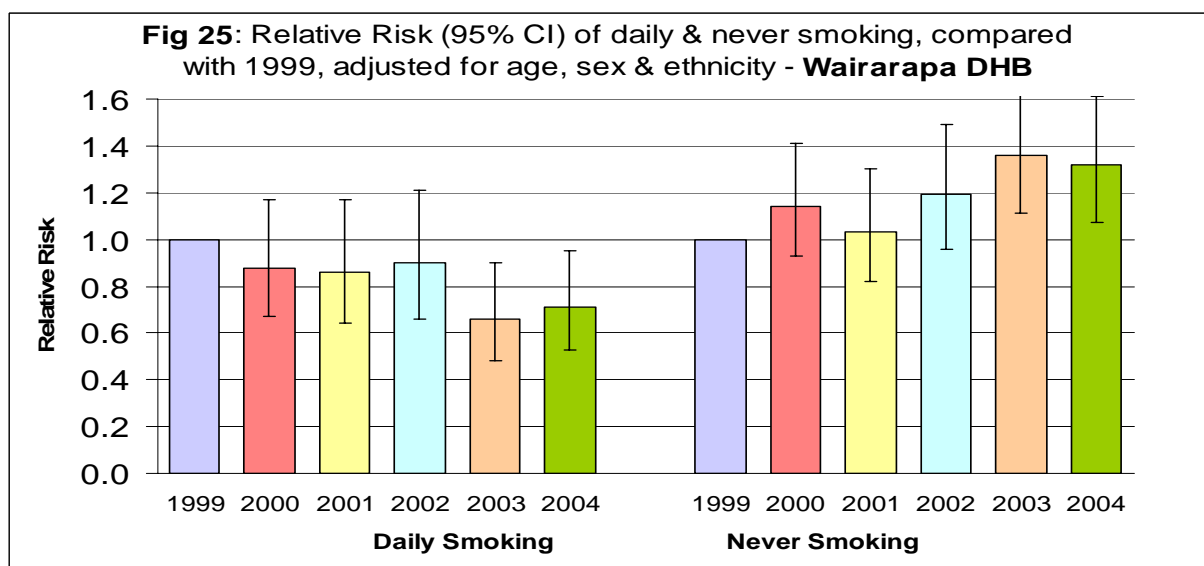
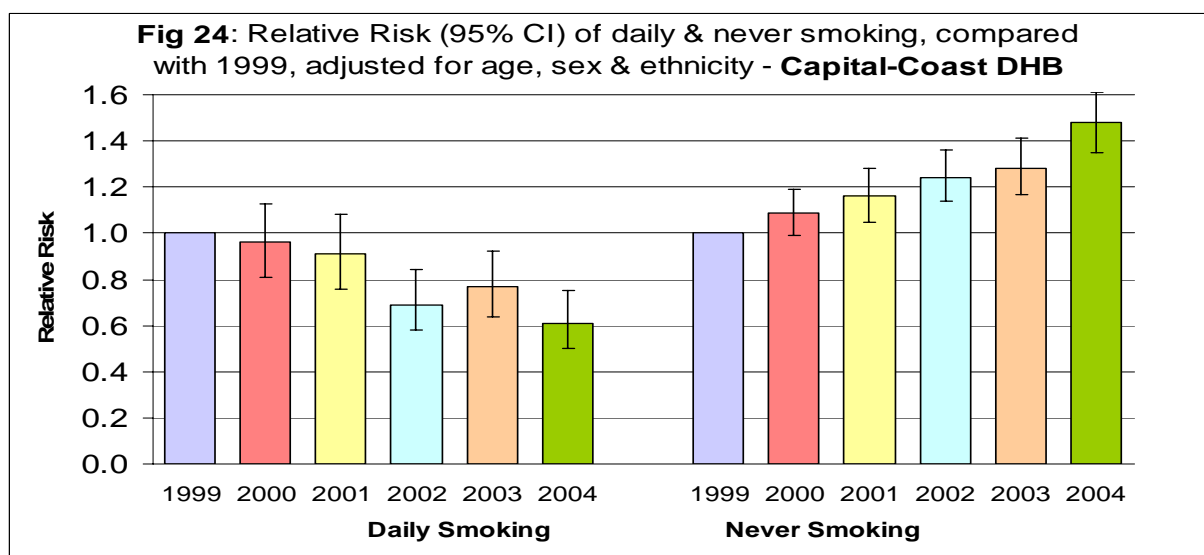
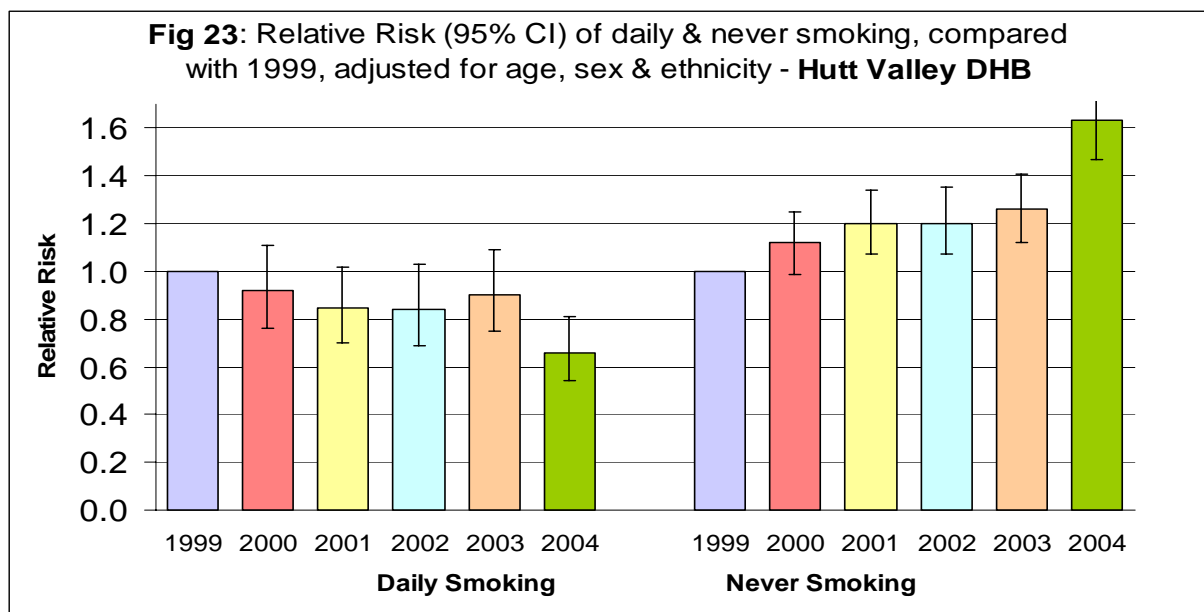
From 1999 to 2004: ↔ = no change; ↓ = decrease; ↑ = increase.

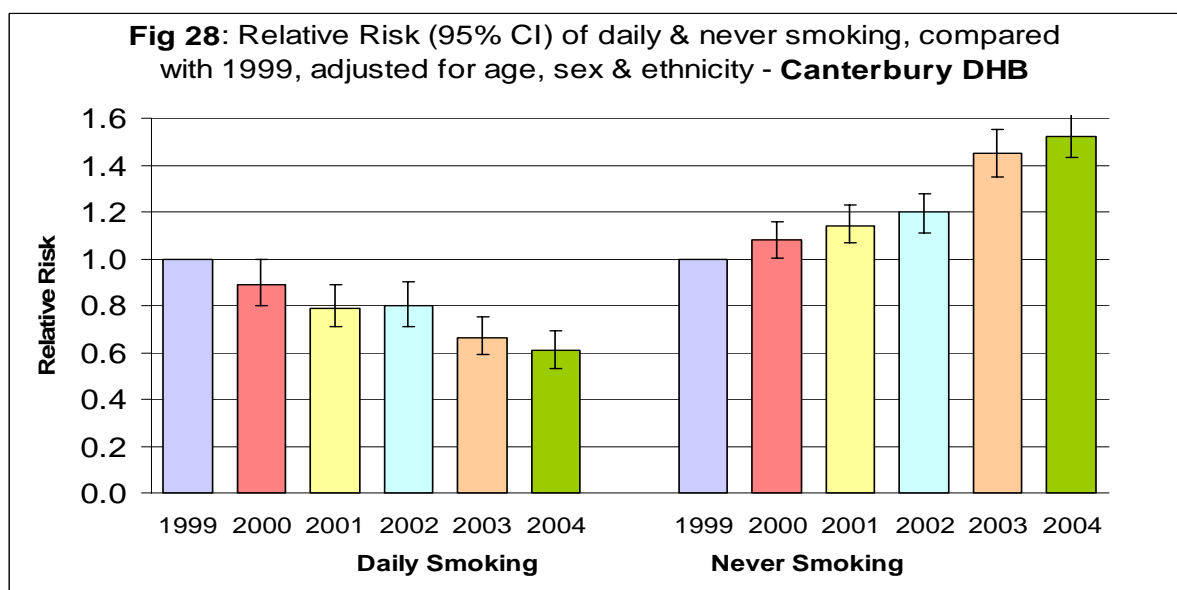
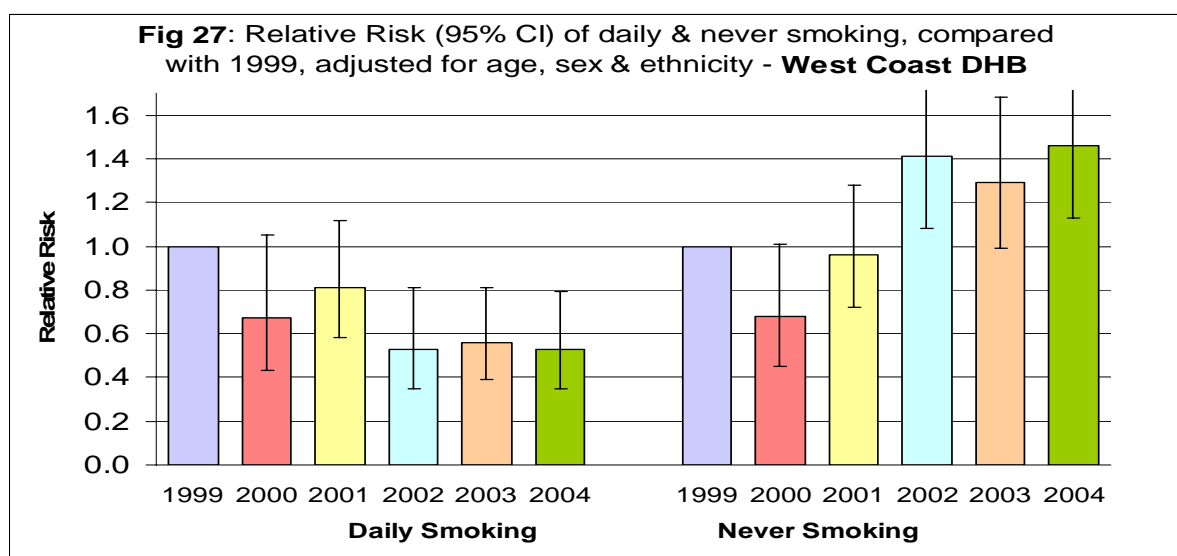
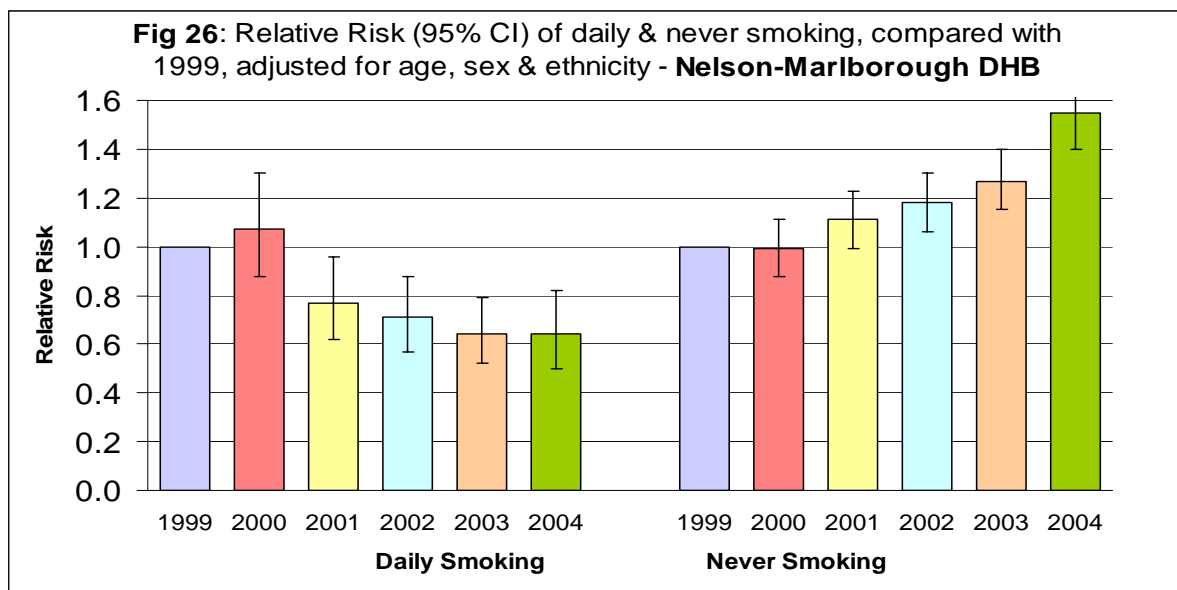












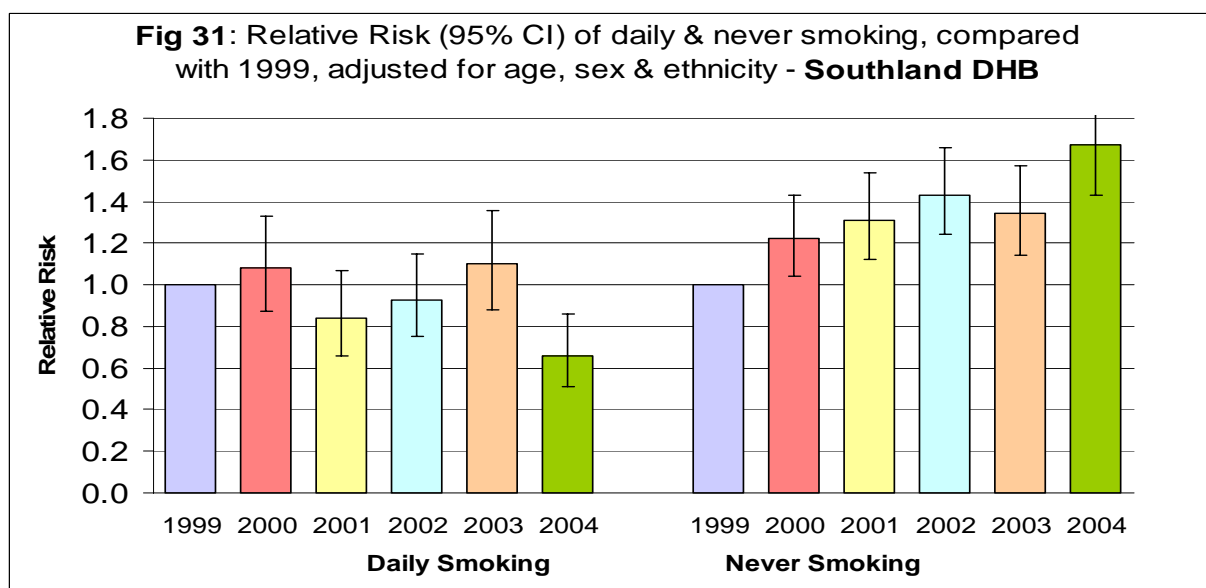
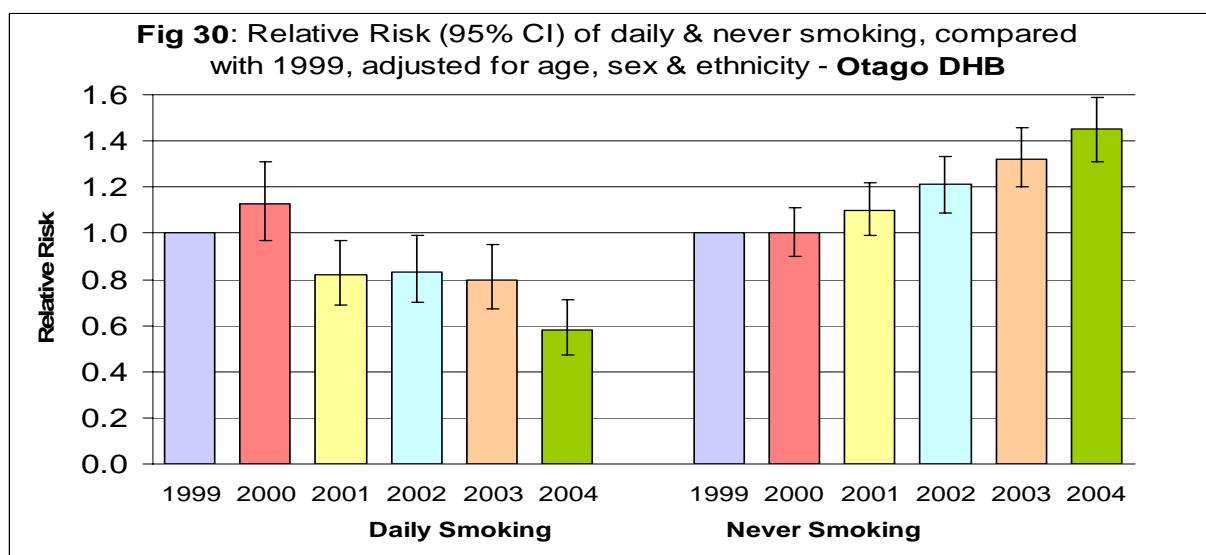
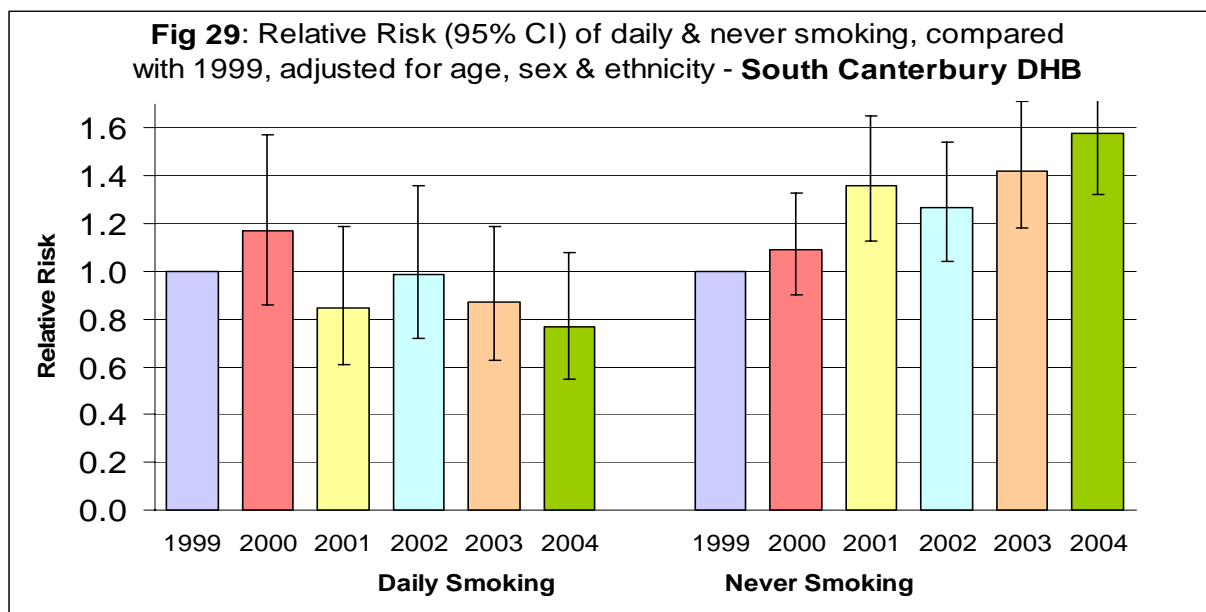


Table 13: Trends in proportion of Year 10 students (male & female) with parents who smoke and who live in a home with smoking inside, during 2001-2004, by ethnicity.

Smoking Variable	2001	2002	2003	2004
	%	%	%	%
<i>All ethnicities</i> [#]				
Parental smoker	40.3	39.4*	40.6	41.0
Smoking in home	30.5	27.1***	29.9	27.1***
<i>Maori</i>				
Parental smoker	66.0	64.8	64.3	64.1
Smoking in home	47.4	44.2**	47.9	39.6***
<i>Pacific</i>				
Parental smoker	50.0	45.6**	47.0	49.5
Smoking in home	34.6	27.5***	34.3	25.4***
<i>Asian</i>				
Parental smoker	29.9	29.2	31.8	30.2
Smoking in home	20.0	19.8	20.2	20.2
<i>European/Other</i>				
Parental smoker	34.1	33.8	34.9	34.9
Smoking in home	27.1	23.9***	26.1*	24.6***

* p<0.05, ** p<0.01, *** p<0.001, compared with 2001, adjusted for age & sex

p-value also adjusted for ethnicity

Table 14: Trends in proportion of Year 10 students (male & female) with parents who smoke and who live in a home with smoking inside, during 2001-2004, by school SES decile.

Smoking Variable	2001	2002	2003	2004
	%	%	%	%
<i>SES 1-2 (low)</i>				
Parental smoker	59.4	58.5	57.4	60.1
Smoking in home	42.1	41.4	43.8	34.4***
<i>SES 3-4</i>				
Parental smoker	50.8	47.7	50.5	49.9
Smoking in home	37.8	33.2***	38.8	32.5***
<i>SES 5-6</i>				
Parental smoker	43.7	43.3	44.2	44.8
Smoking in home	34.7	31.8***	33.3	29.9***
<i>SES 7-8</i>				
Parental smoker	36.3	35.4	38.6*	38.2
Smoking in home	27.8	24.2***	27.9	26.5
<i>SES 9-10</i>				
Parental smoker	27.4	26.7	27.0	26.2
Smoking in home	20.6	16.6***	18.4***	18.4***

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

Table 15a: Trends in proportion of Year 10 students (male & female) with parents who smoke and who live in a home with smoking inside, during 2001-2004, by 2004 district health board (DHB).

Smoking Variable	2001	2002	2003	2004
	%	%	%	%
Northland DHB				
Parental smoker	47.5	45.0	49.2	53.0
Smoking in home	36.5	33.7	37.6	33.9
Waitemata DHB				
Parental smoker	36.8	37.8	36.2	38.1
Smoking in home	27.4	24.8*	26.6	25.1
Auckland DHB				
Parental smoker	37.0	33.3*	33.2*	31.2***
Smoking in home	28.1	20.7***	23.7***	19.4***
Counties-Manukau DHB				
Parental smoker	41.7	42.0	38.4	40.7
Smoking in home	29.8	28.6	27.6	24.9***
Waikato DHB				
Parental smoker	43.2	42.3	41.4	42.3
Smoking in home	33.2	28.9**	30.8	27.8***
Lakes District DHB				
Parental smoker	51.9	50.2	50.7	46.7**
Smoking in home	37.3	35.7	33.6	30.6**
Bay of Plenty DHB				
Parental smoker	42.7	45.6	45.8	44.9
Smoking in home	29.2	29.8	31.8	32.1

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

Table 15b: Trends in proportion of Year 10 students (male & female) with parents who smoke and who live in a home with smoking inside, during 2001-2004, by 2004 *district health board (DHB)*.

Smoking Variable	2001	2002	2003	2004
	%	%	%	%
Tairāwhiti DHB				
Parental smoker	57.7	53.7	56.3	54.3
Smoking in home	40.3	41.4	39.9	30.2**
Taranaki DHB				
Parental smoker	43.7	37.2*	44.2	43.6
Smoking in home	39.0	29.4***	34.7*	32.0***
Hawkes Bay DHB				
Parental smoker	50.5	45.6	50.0	47.3
Smoking in home	36.0	31.7	38.8	32.3*
Wanganui DHB				
Parental smoker	37.5	47.1*	46.1*	51.5*
Smoking in home	30.2	36.4	38.2*	34.0
Mid-Central DHB				
Parental smoker	45.7	41.7*	44.7	41.8
Smoking in home	33.7	27.6**	33.4	28.0**
Hutt Valley DHB				
Parental smoker	38.6	41.8	45.3**	39.9
Smoking in home	27.4	27.4	32.6*	26.1
Capital-Coast DHB				
Parental smoker	36.0	33.5	39.6	37.0
Smoking in home	28.5	22.9***	28.2	25.2**

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

Table 15c: Trends in proportion of Year 10 students (male & female) with parents who smoke and who live in a home with smoking inside, during 1999-2004, by 2004 district health board (DHB).

Smoking Variable	2001	2002	2003	2004
	%	%	%	%
Wairarapa DHB				
Parental smoker	48.6	37.4**	46.1	46.9
Smoking in home	41.7	30.5**	36.6	31.9**
Nelson-Marlborough DHB				
Parental smoker	35.0	35.4	37.4	35.4
Smoking in home	26.2	22.9	26.0	20.8**
West Coast DHB				
Parental smoker	50.3	40.3*	51.2	48.7
Smoking in home	41.9	36.7	43.1	31.1**
Canterbury DHB				
Parental smoker	33.4	33.6	36.7	28.3**
Smoking in home	24.4	22.6*	25.9	25.3
South Canterbury DHB				
Parental smoker	38.0	37.4	39.6	42.4
Smoking in home	33.4	26.6*	31.3	29.0
Otago DHB				
Parental smoker	34.6	35.6	39.7**	40.2**
Smoking in home	29.0	25.9*	29.9	27.1
Southland DHB				
Parental smoker	44.3	42.8	46.5	45.2
Smoking in home	42.8	37.5*	39.7	34.6**

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