

**SOCIAL RESEARCH REPORT**

**HEART HEALTH BEHAVIOUR**  
**OF ADULT NEW ZEALANDERS**

**PREPARED FOR:**

**HEALTH DEPARTMENT**

**NOVEMBER 1989**



AUCKLAND      PHONE 600-655      FAX 687 849  
WELLINGTON    PHONE 712-370      FAX 733 276

## CONTENTS

	<u>Page No.</u>
A. OBJECTIVES .....	1.....
B. METHODOLOGY .....	2.....
C. FINDINGS .....	5.....
1. Eating Habits.....	5.....
2. Alcohol Consumption.....	27
3. Health Checks.....	29
4. Exercise Patterns.....	32
5. Smoking Attitudes.....	35
6. Smoking Behaviour.....	41
7. Passive Smoking Exposure.....	47
8. Height For Weight.....	54
D. QUESTIONNAIRE	
E. COMPUTER TABLES (UNDER SEPARATE COVER)	

\* \* \* \* \*

## A. OBJECTIVES

The general objective of this survey was to measure a range of heart health attitudes and behaviours amongst adult New Zealanders aged 15 years and upwards. The intended use of the survey is to assist with interventional education and communications and then to re-measure in the future to see whether an improving or deteriorating trend of heart health indicators is emerging.

Specific information objectives sought fell into the following main topic areas ...

- eating habits covering the consumption of milk, salt, solid fats, cheese, meat, chicken, bread, fruit and vegetables,
- awareness of the healthy food pyramid,
- alcohol consumption, its incidence, type and amount consumed,
- the incidence and frequency of health checks such as cholesterol and blood pressure,
- smoking attitudes,
- physical exercise, its incidence and frequency,
- smoking behaviour, current and past,
- passive smoking exposure, both at home and in the workplace.

\* \* \* \* \*

## B. METHODOLOGY

### a. Definition of Population

- All New Zealand residents aged 15+ in dwellings listed within the White Pages of the 18 Regional Telephone Directories.
- All listed numbers for dwellings were included regardless of location and toll step.

### b. Sample Size

- A total sample size of 2,300 respondents.

### c. Sample Frames

- The 18 Regional Telephone Directories (latest available editions) were used as the sample frames.

### d. Sampling Unit

- Dwellings listed within the Directories.

### e. Stratification

- The sample was stratified according to the proportion of the population aged 15+ years living in each of the districts represented by the 18 telephone directories. The sample to be taken from each of the districts was in proportion to the population of 15+ year olds within each.
- As Maori and Pacific Island families are known to have a lower incidence of telephone ownership than Europeans, the sample was augmented to ensure the inclusion of these two ethnic groups in their proper proportions.

f. Sampling Plan

- Telephone numbers were randomly selected from the Directories and then called. The names of all people aged 15+ within the dwelling were recorded.

Every third name recorded was eligible for interview.

Up to two callbacks were made to numbers where no contact could be made on the enumeration call.

Up to three callbacks were made to the selected respondent if the interview could not be completed on the first call.

- The acceptance rate of people approached to take part (ie whose names fell at the selection interval) was

<u>Outcome</u>	<u>Percentage</u>
Interview	78%
Refused interview	16%
No reply (after 3 calls)	1%
Not available, engaged, phone not working (after 3 calls)	5%

g. Field Controls

- Validation was carried out by Area Supervisors on 10% of each of their interviewers' completed questionnaires. Respondents were recontacted by telephone to establish:
  - that an interview was in fact carried out
  - that re-questioning on key questions confirmed the original recorded response.

In any instances where validation procedures had thrown doubt on whether the original interview had been faithfully executed, 100% of the interviewers' work would have been checked. Any questionnaires in doubt would have been discarded.

h. Data Processing

- Appendices were drawn up for the coding of open-ended questions.

Codes were 'punched' into dedicated data capture units. Hard copies of all 'punched' data were taken and 10% checked against the original questionnaires. This validation extended to 100% of a coder's work where errors in interpretation were detected.

Data was loaded into the processing computer and range checks carried out on all question fields.

Computer tabulations on the total sample, plus any relevant sub-group were made.

i. Weighting

- Weights were applied to individual age within sex within ethnic subgroups so that the bases in the tables reflect those people in their census proportions.

j. Statement of Accuracy

- At a level of 95% the maximum error margins due to sampling variation are as follows.

<u>Error Margin</u> <u>(Plus or Minus)</u>	<u>Sample Size</u>
2.0%	2,300
2.5%	1,500
3.1%	1,000
4.4%	500

The maximum error margin applies to estimated results at or close to the 50% mark.

For a given sample size the error margins decrease as the estimate result moves further away from the 50% mark.

k. Timing

- Interviewing took place between 28th September and 22nd October 1989.

\* \* \* \* \*

## 5. Smoking Attitudes

### a. Overview

	<u>Strongly agree</u> %	<u>Agree</u> %	<u>Neither/ nor</u> %	<u>Disagree</u> %	<u>Strongly disagree</u> %	<u>Don't know</u> %
"Smoking should not be allowed in enclosed public places"	38	42	8	9	2	1
	80					
"Restaurants should be required by law to provide separate smoking and non-smoking sections"	38	46	6	8	1	1
	84					
"The health of non-smokers can be damaged by other people's tobacco smoke."	36	48	6	5	1	4
	84					
"The law should require any place of employment to ensure non-smokers can have their tea break in a smoke-free area."	35	50	6	7	1	1
	85					

Each of the four statements gained at least 80% agreement and only around 10% or less disagreement. It seems that moves to separate areas into smoking and non-smoking, whether in restaurants or workplaces would meet with strong public support. There is also a widespread belief in the potential health dangers of passive smoking. The idea of the banning of smoking completely in enclosed public places also meets with strong approval.

b. "Smoking should not be allowed in enclosed public places."

<u>Summary Table - Percent Agreeing With Statement</u>	
<b>Sex</b>	
Males	78
Females	81
<b>Age</b>	
15-19 years	83
20-24 years	73
25-34 years	81
35-44 years	82
45-54 years	78
55+ years	80
<b>Ethnic</b>	
European	82
Maori	65
Pacific Island	69
<b>Smoking</b>	
Non-smoker	89
Former smoker	78
Current smoker	60

Support for this statement dips a little amongst 20-24 year olds, but is still the majority view.

Smokers agree with the idea in only 60% of cases, compared with 89% of non-smokers.

Maori and Pacific Island people are much less likely than their European counterparts to agree with the banning of smoking in enclosed public places.

Those agreeing with the statement seem much more confident that they have majority public support on their side than those disagreeing are.

	<u>Summary Table - Perception of Public Support for Personal Views</u>			
	<u>Strongly agree</u> %	<u>Agree</u> %	<u>Disagree</u> %	<u>Strongly Disagree</u> %
Amongst public ...				
Think more than half would agree	50	45	17	22
Think about half would agree	32	37	44	28
Think less than half would agree	13	13	28	33
Don't know	5	5	11	17

- c. "Restaurants should be required by law to provide separate smoking and non-smoking sections."

<u>Summary Table - Percent Agreeing With Statement</u>	
<b>Sex</b>	
Males	83
Females	88
<b>Age</b>	
15-19 years	87
20-24 years	85
25-34 years	86
35-44 years	85
45-54 years	85
55+ years	85
<b>Ethnic</b>	
European	86
Maori	80
Pacific Island	79
<b>Smoking</b>	
Non-smoker	89
Former smoker	85
Current smoker	79

Agreement with this statement reaches at least 80% almost right across the board. Even amongst smokers there is 79% agreement with the proposal.

d. "The health of non-smokers can be damaged by other people's tobacco smoke."

Summary Table - <u>Percent Agreeing With Statement</u>	
<b>Sex</b>	
Males	83
Females	84
<b>Age</b>	
15-19 years	95
20-24 years	90
25-34 years	88
35-44 years	84
45-54 years	78
55+ years	74
<b>Ethnic</b>	
European	85
Maori	77
Pacific Island	76
<b>Smoking</b>	
Non-smoker	91
Former smoker	84
Current smoker	66

Older people (over 45 years) and those of non-European descent are a little less likely than others to accept the dangers of passive smoking exposure, although agreement with the statement still reaches around 75%.

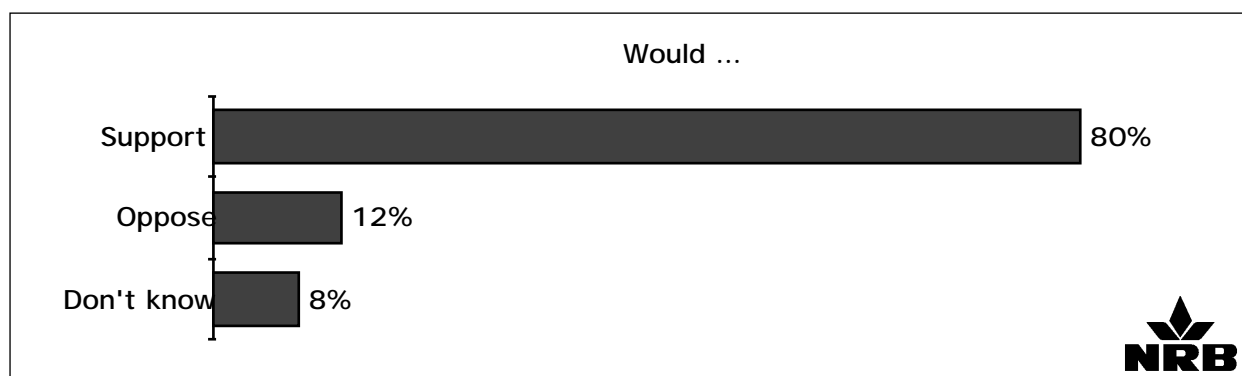
Two-thirds of smokers agree that tobacco smoke can be damaging to the health of non-smokers.

- e. "The law should require any place of employment to ensure non-smokers can have their tea break in a smoke-free area."

Summary Table - <u>Percent Agreeing With Statement</u>	
<b>Sex</b>	
Males	82
Females	88
<b>Age</b>	
15-19 years	87
20-24 years	85
25-34 years	87
35-44 years	83
45-54 years	82
55+ years	84
<b>Ethnic</b>	
European	86
Maori	83
Pacific Island	75
<b>Smoking</b>	
Non-smoker	89
Former smoker	85
Current smoker	74

Support for the idea of a smoke-free area for non-smokers receives 74% support from smokers and 89% from non-smokers. Pacific Island people are a little less supportive of this idea than the other main ethnic groups.

- f. "A new law is proposed which would require places of employment to provide smoke-free working conditions for non-smokers. That is, any smoking which took place would have to be in specially designated areas away from non-smokers. Would you support or oppose such a law?"



Summary Table -  
Percent Who Support Such a Law

<b>Sex</b>	
Males	75
Females	84
<b>Age</b>	
15-19 years	89
20-24 years	82
25-34 years	80
35-44 years	80
45-54 years	72
55+ years	76
<b>Ethnic</b>	
European	80
Maori	74
Pacific Island	73
<b>Smoking</b>	
Non-smoker	87
Former smoker	78
Current smoker	63

Support for smoke-free working conditions for non-smokers received 80% support and 12% opposition.

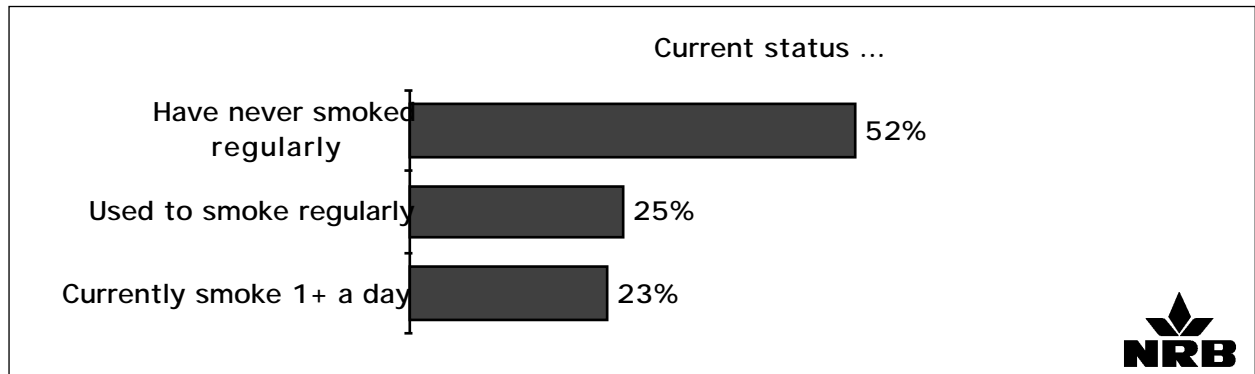
Support peaked amongst ...

- women,
- 15-19 year olds,
- Europeans,
- non-smokers.

Almost two-thirds of smokers (63%) would support such a law.

## 6. Smoking Behaviour

### a. Current Status



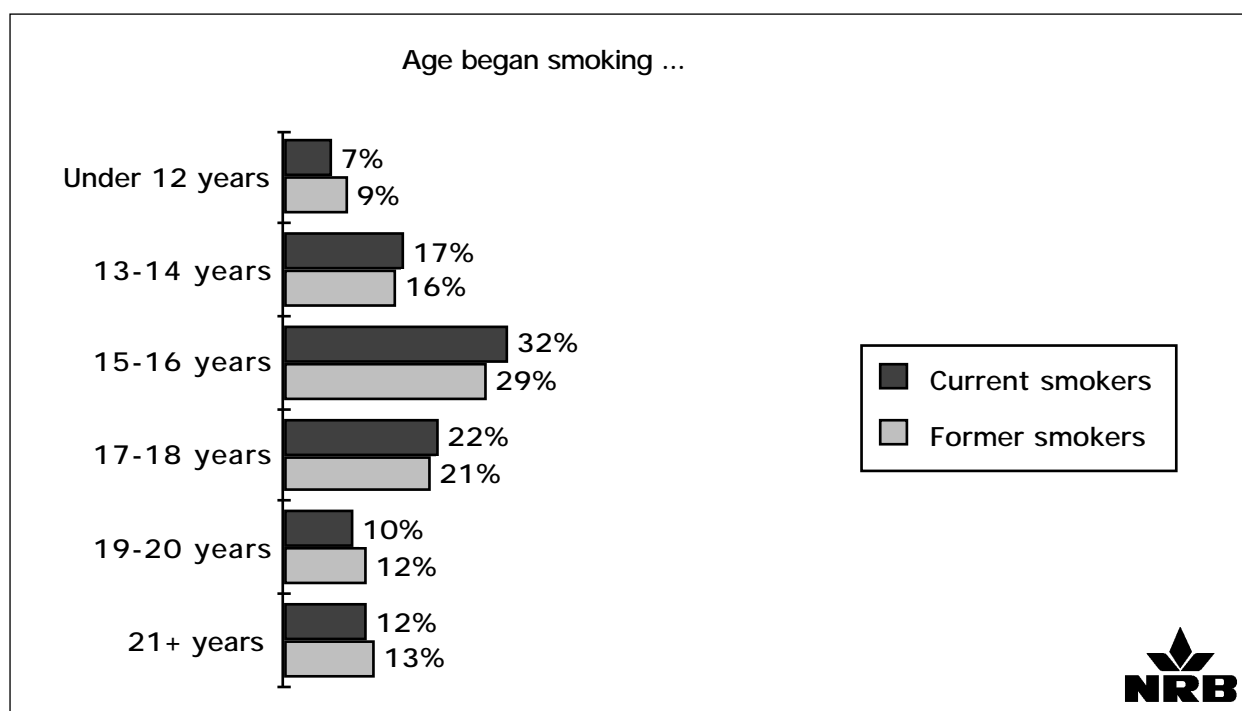
Summary Table -  
Percent Who Currently Smoke

<b>Sex</b>	
Males	24
Females	22
<b>Age</b>	
15-19 years	19
20-24 years	27
25-34 years	28
35-44 years	24
45-54 years	24
55+ years	17
<b>Ethnic</b>	
European	21
Maori	39
Pacific Island	24
<b>Occupation</b>	
White collar	20
Blue collar	29
Not in paid employment	12

Currently 23% of adults classify themselves as smoking one or more cigarettes a day.

Smoking incidence is highest amongst ...

- 20-34 year olds (27-28%),
- Maoris (39%),
- blue collar workers (29%).

b. Age Began Smoking

Regardless of whether people are current smokers or smokers who have given up, the peak age for them beginning smoking was 15-16 years of age. Amongst current smokers, 24% began smoking some time before they were 15, 32% at 15-16, 22% at ages 17-18 and a further 22% were older than 18 when they began.

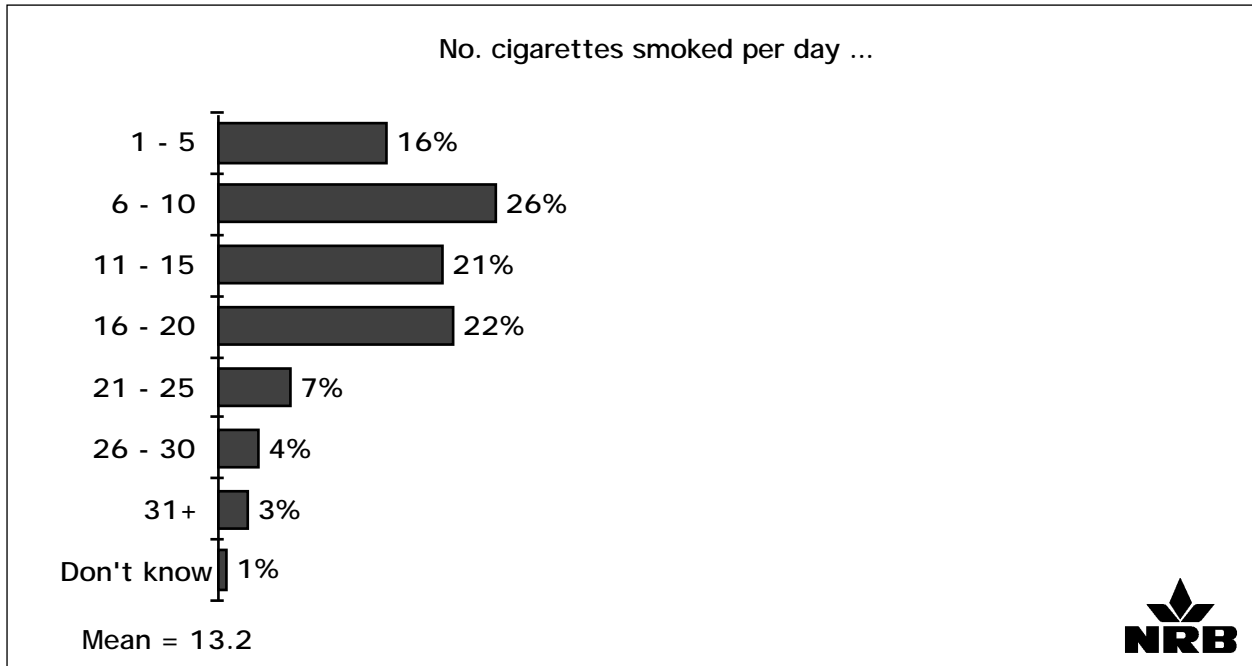
The mean ages were 16.7 years (former smokers) and 16.6 years (current smokers).

The length of time which has elapsed since former smokers gave up is detailed in the table below. Amongst 20-24 year old former smokers, one of the groups to show highest smoking incidence, 29% have given up in the last 3 months.

Length of Time Since Stopping Smoking (Former Smokers)

	Age					
	<u>15-19</u> %	<u>20-24</u> %	<u>25-34</u> %	<u>35-44</u> %	<u>45-54</u> %	<u>55+</u> %
Less than 3 months	12	29	6	3	5	2
4-11 months	36	10	11	6	3	3
1-6 years	48	58	48	29	30	19
7-20 years	4	3	33	59	52	42
21+ years	-	-	1	3	10	34
Don't know	-	-	1	-	-	-

c. Number Smoked Per Day

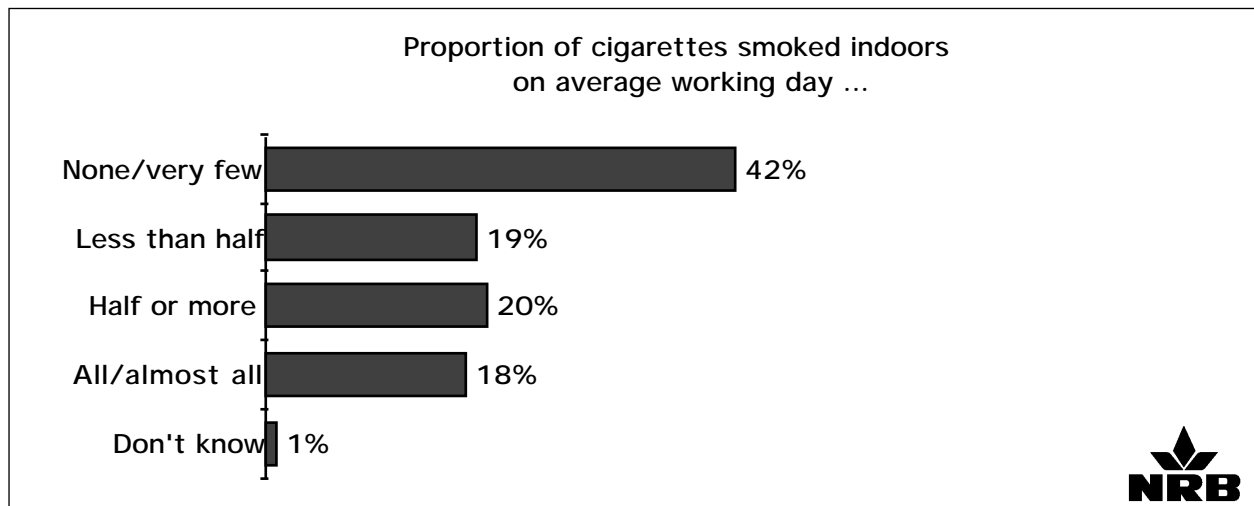


Summary Table - Mean No. of Cigarettes  
Smoked Per Day

<b>Sex</b>	
Males	14.2
Females	12.2
<b>Age</b>	
15-19 years	9.5
20-24 years	11.5
25-34 years	13.4
35-44 years	15.5
45-54 years	15.6
55+ years	12.3
<b>Ethnic</b>	
European	13.5
Maori	12.1
Pacific Island	11.8
<b>Occupation</b>	
White collar	13.2
Blue collar	13.7
Not in paid employment	9.0

The average number of cigarettes smoked by current regular smokers is 13.2. The spread goes from 42% who smoke 10 or fewer a day, to 43% who smoke 11-20 a day, to 14% who smoke more than 20 a day.

A peak in terms of the average daily number smoked occurs amongst 35-54 year old smokers. Smokers who work in paid employment smoke more on average than smokers who are not in the paid workforce.

d. Proportion Smoked Indoors (workers only)

Summary Table - Percent Smoking Half or More of Their Cigarettes Indoors on Working Days

<b>Sex</b>	
Males	40
Females	33
<b>Age</b>	
15-19 years	40
20-24 years	43
25-34 years	32
35-44 years	38
45-54 years	37
55+ years	45
<b>Ethnic</b>	
European	37
Maori	36
Pacific Island	27
<b>Occupation</b>	
White collar	42
Blue collar	33

Amongst smokers in the paid workforce, 42% indicated that they smoke none or only very few of their cigarettes indoors at work. However, towards the other end of the scale 38% estimated that they smoke half or more than half of their cigarettes indoors.

Those workers most likely to smoke the greatest proportion of their cigarettes indoors are ...

- men,
- the under 25's and the over 55's,
- Europeans and Maoris,
- white collar workers.

e. Current BrandBrand They Currently Smoke

	<u>Total</u>
	%
<u>Rothmans</u>	
King Size	9
Other	1
<u>Pall Mall</u>	
Plain	2
Filter	9
Extra Mild	3
Menthol	2
Other	1
<u>Benson and Hedges</u>	
Gold	7
Golden Mild	5
Other	1
<u>Winfield</u>	
Filter	14
Low Tar	2
Menthol Green	3
Other	2
<u>Sportsman</u>	
Red	2
Menthol Green	1
<u>John Brandon</u>	
Special	2
Mild	1
Menthol	1
Other	1
<u>Peter Stuyvesant</u>	
King Size	1
Extra Mild	2
<u>Peter Jackson</u>	
Virginia	1
Medium	1
Menthol	1
Other	2
<u>Sterling</u>	
Menthol Green	1
Other	1
<u>Dunhill</u>	
Superior Mild	1
Other	1
<u>North Pole</u>	1
<u>Pacific No. 1</u>	1
<u>Cameo</u>	1
All other brands	2
Roll your owns	14
<b>TOTAL</b>	<b>100</b>
<b>BASE</b>	<b>524</b>

f. Brand Switching

Amongst current smokers, 22% have switched brands in the last 12 months. Those most likely to have switched brands are ...

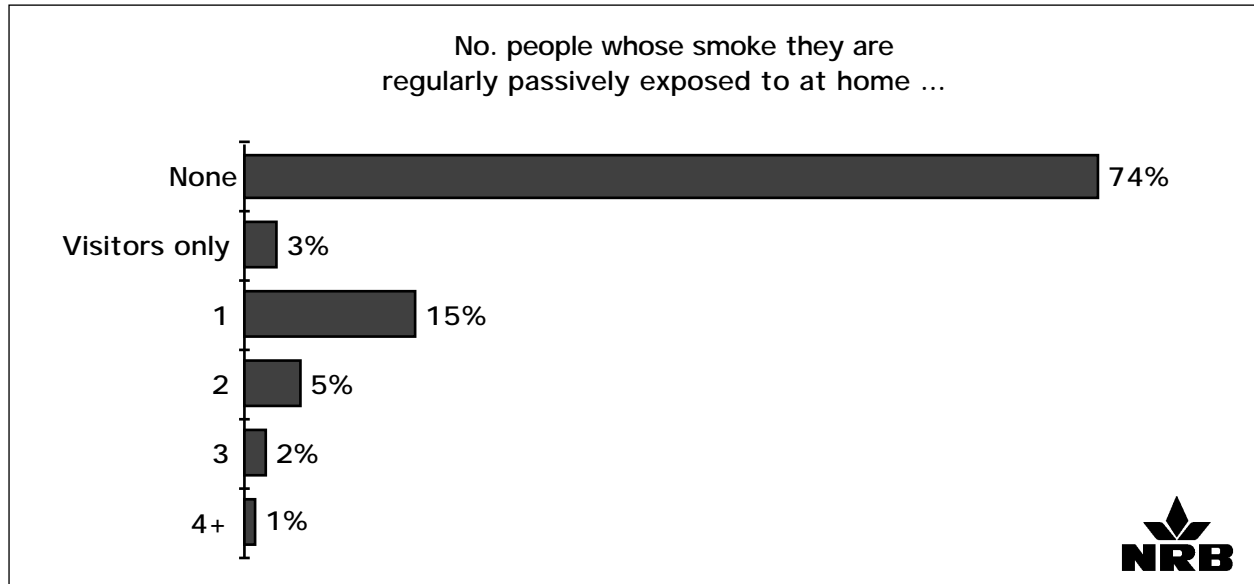
- women (25%),
- 15-19 year olds (34%),
- Pacific Islanders (38%),
- those not in paid employment (28%).

Below are the main brands currently smoked by those switchers, and the brands they were smoking 12 months ago.

	Current Brand ...						
	Rothmans King Size %	Pall Mall Filter %	Pall Mall Menthol %	B&H Golden Mild %	Winfield Filter %	Winfield Menthol Green %	Roll your owns %
Switched from ...							
Rothmans King Size	-	15	20	-	17	-	-
Rothmans International	-	-	-	-	14	-	-
Other Rothmans	13	-	-	-	-	-	7
Pall Mall Filter	15	15	23	5	14	-	-
Pall Mall Extra Mild	-	-	-	16	-	-	-
Pall Mall Extra Mild Menthol	-	-	-	-	9	-	-
Pall Mall Plain	-	-	-	-	-	-	10
Winfield Filter	50	70	-	10	-	43	48
Winfield Low Tar	-	-	-	-	-	-	5
Winfield Menthol Green	-	-	17	-	14	-	-
Other Winfield	-	-	-	-	-	15	-
B& H Gold	-	-	40	19	6	21	6
B&H Golden Mild	-	-	-	-	-	21	-
John Brandon Special	-	-	-	9	-	-	-
John Brandon de Luxe	-	-	-	8	-	-	-
Dunhill International	-	-	-	8	8	-	-
Cameo	-	-	-	9	-	-	-
Sportsman Red	-	-	-	-	6	-	-
Sportsman Low Tar Blue	-	-	-	-	-	-	4
Peter Stuyvesant Gold	-	-	-	-	6	-	-
Peter Stuyvesant King Size	-	-	-	-	-	-	4
Other brand	22	-	-	16	-	-	16
Don't know	-	-	-	-	6	-	-

## 7. Passive Smoking Exposure

### a. In the Home (non-smokers only)



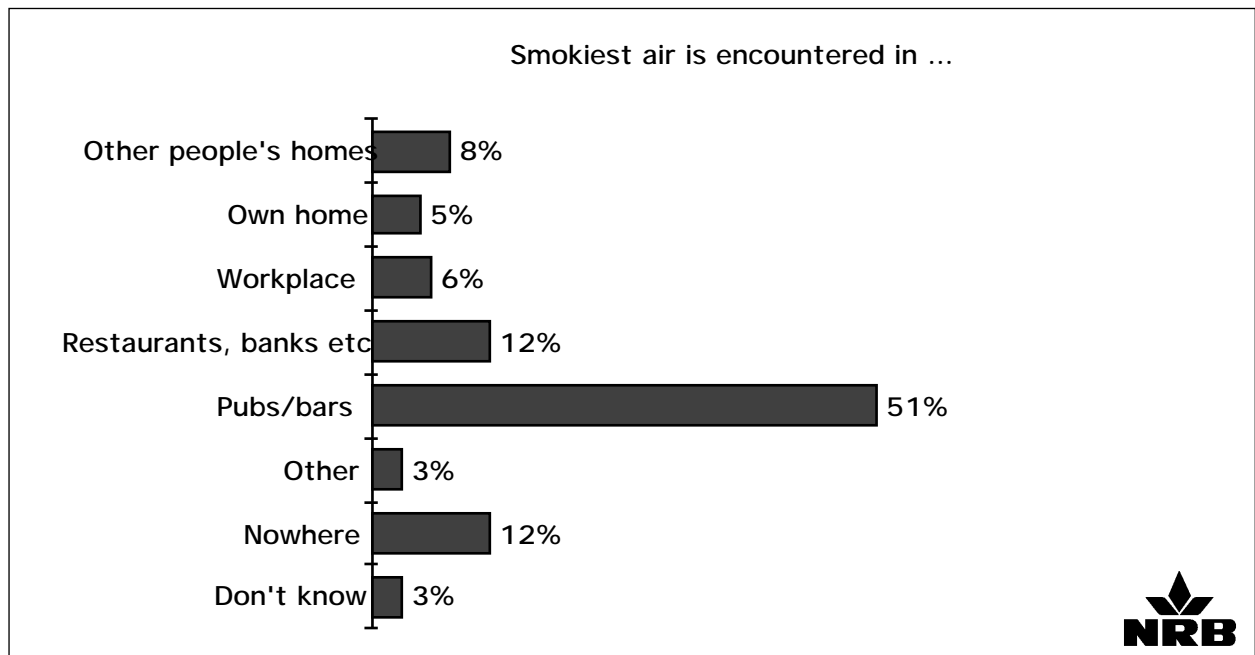
Summary Table - Percent Regularly Exposed  
to Cigarette Smoke at Home

<b>Sex</b>	
Males	26
Females	25
<b>Age</b>	
15-19 years	38
20-24 years	38
25-34 years	22
35-44 years	19
45-54 years	22
55+ years	24
<b>Ethnic</b>	
European	23
Maori	54
Pacific Island	35
<b>Occupation</b>	
White collar	22
Blue collar	29
Not in paid employment	34

In total, 26% of non-smokers say they are exposed to cigarette smoke at home on a fairly regular basis. In most cases it is one person's smoke they are exposed to (15%), but in 8% of cases there are two or more smokers in the household.

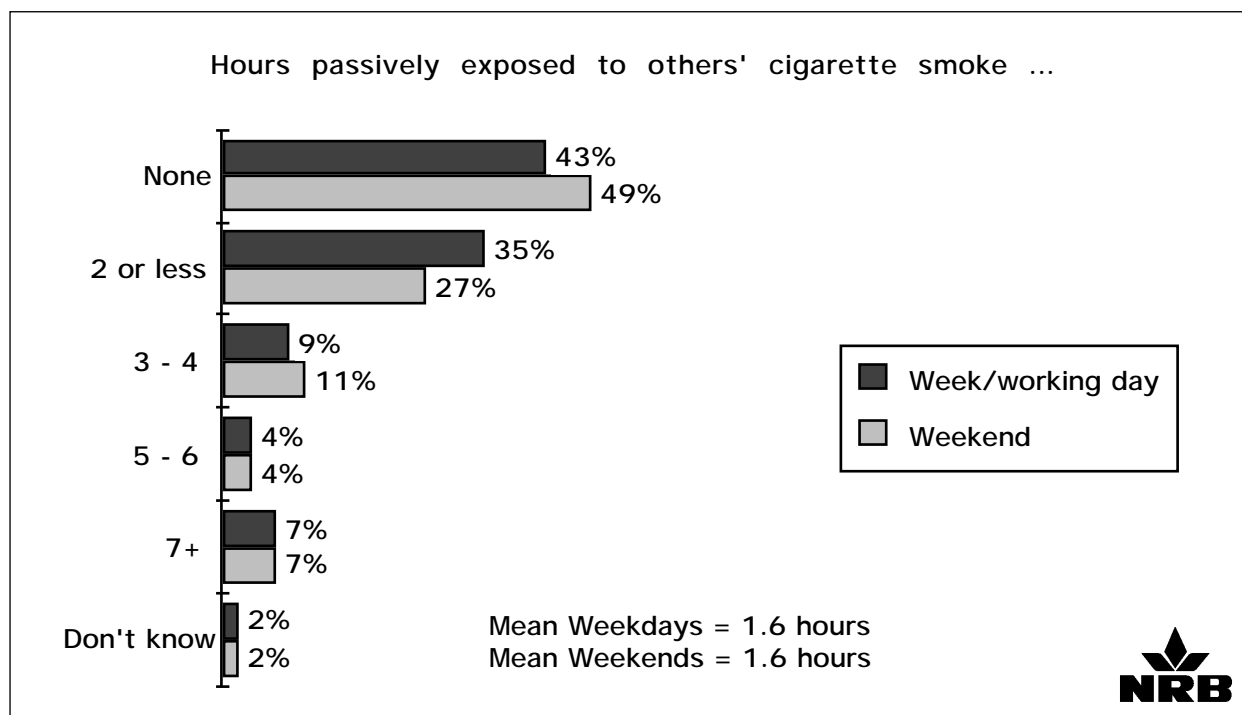
Rates of passive exposure are higher for the under 25's than for older people. Maori people are twice as likely as Europeans to be exposed in this way.

b. Smokiest Place Where Exposed



Pubs and bars stand out as being the single smokiest place people frequent.

Next, but well below pub/bar smoke are restaurants, banks, shops and other public places, followed by other people's homes and their place of work. Only 12% say there is nowhere they go indoors which is ever smoky.

c. Hours Exposedi. Weekdays vs Weekends

Summary Table - Mean No. Hours Exposed to Others' Cigarette Smoke

	<u>Weekday</u>	<u>Weekend</u>
<b>Sex</b>		
Males	1.8	1.7
Females	1.5	1.5
<b>Age</b>		
15-19 years	2.1	2.6
20-24 years	2.6	3.0
25-34 years	1.9	1.8
35-44 years	1.6	1.3
45-54 years	1.3	1.2
55+ years	1.0	0.8
<b>Ethnic</b>		
European	1.5	1.5
Maori	2.8	2.9
Pacific Island	1.8	2.5
<b>Occupation</b>		
White collar	1.5	1.5
Blue collar	1.9	1.8
Not in paid employment	1.3	2.0
<b>Smoker</b>		
Non-smoker	1.2	1.2
Former smoker	1.6	1.2
Current smoker	2.7	3.2

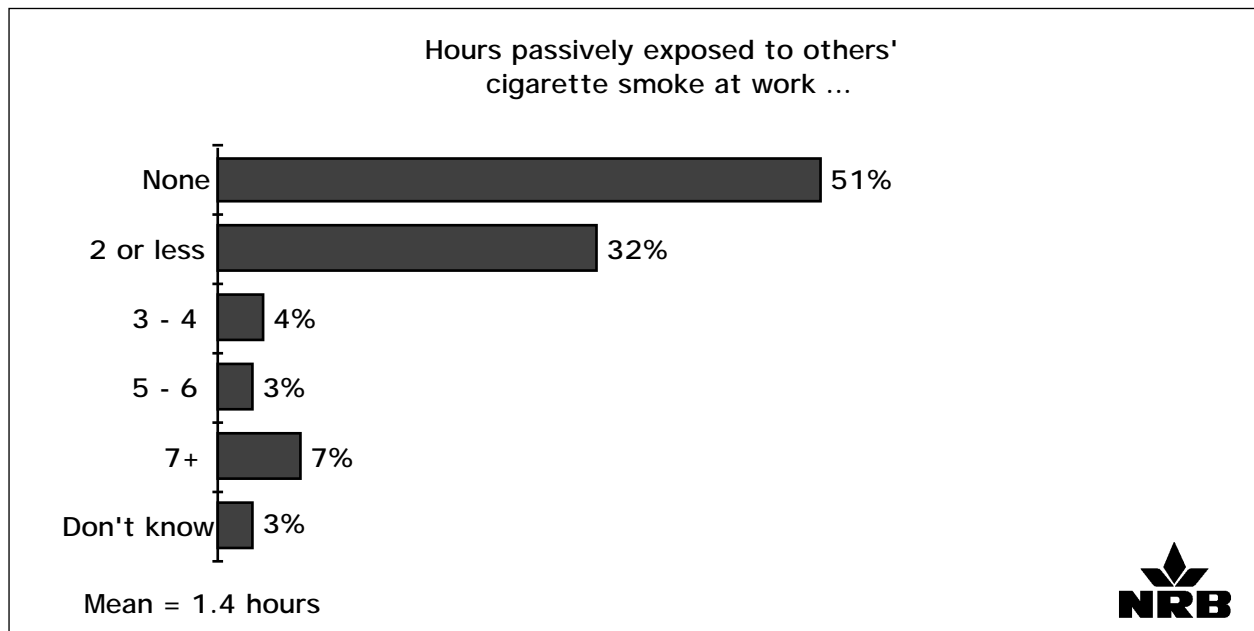
During the average weekday or working day 57% of people estimate that they are exposed to someone else's cigarette smoke. The average number of hours' exposure is 1.6.

In the weekends, 51% are exposed, with the average number of hours an identical 1.6.

Those exposed for the greatest number of weekday hours are the under 25's, Maori and those who themselves are smokers.

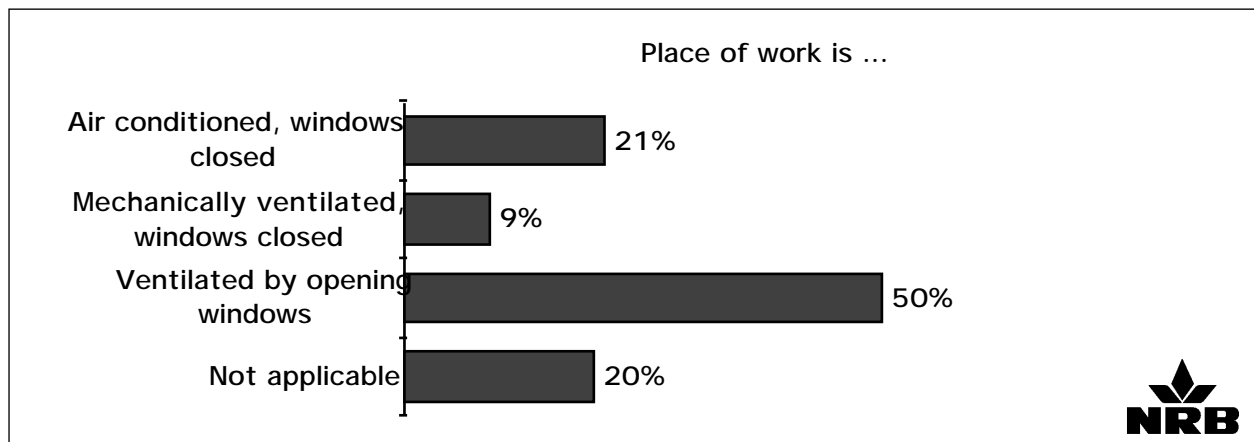
A similar pattern occurs in the weekends, with those not in paid employment more exposed (presumably to family members' smoke) than during the week.

## ii. At Work



Of those who are exposed to someone else's smoke either on weekdays or weekends, 49% are exposed for some length of time in the workplace. Most of these people are exposed to smoke for less than 2 hours, suggesting that it may be tea-breaks and lunch times when they are exposed rather than during actual working time. However, 14% are exposed to someone else's smoke at work for more than 3 hours a day.

d. Means of Ventilation at Work (workers only)

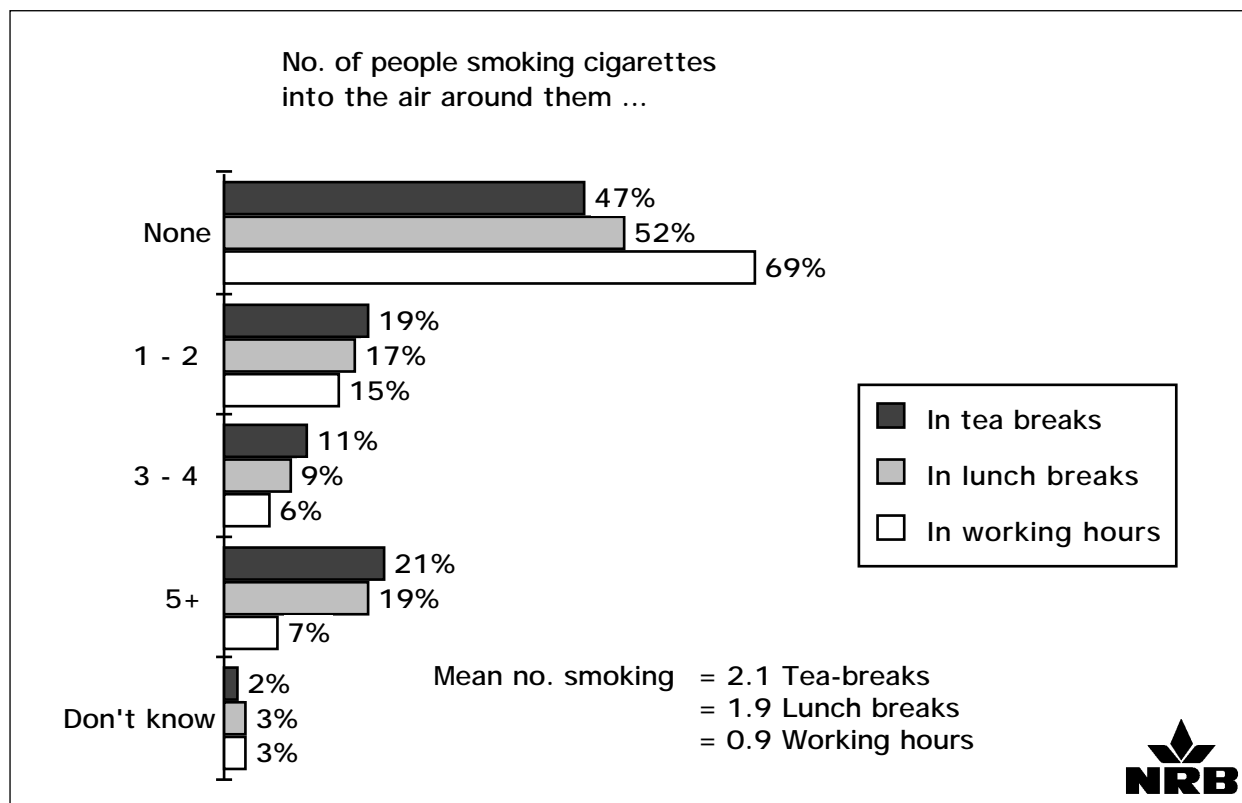


Summary Table - Smoke Environment by Ventilation Method

	<u>Air conditioned/ windows closed</u> %	<u>Mechanical ventilation windows closed</u> %	<u>Opening windows</u> %
Work is ...			
Officially smoke-free	32	12	53
Unofficially smoke-free	31	13	53
Smoking allowed	23	8	60
Smoking			
Non-smoker	22	9	51
Current smoker	20	11	47

In 50% of cases workplaces are ventilated by opening windows as required, 21% have air conditioning and 9% some sort of mechanical ventilation.

In 60% of workplaces where smoking is allowed, windows are the main form of ventilation.

e. No. of People Smoking Around Them at Work

**Summary Table - Mean No. People  
Smoking Around Them At Work**

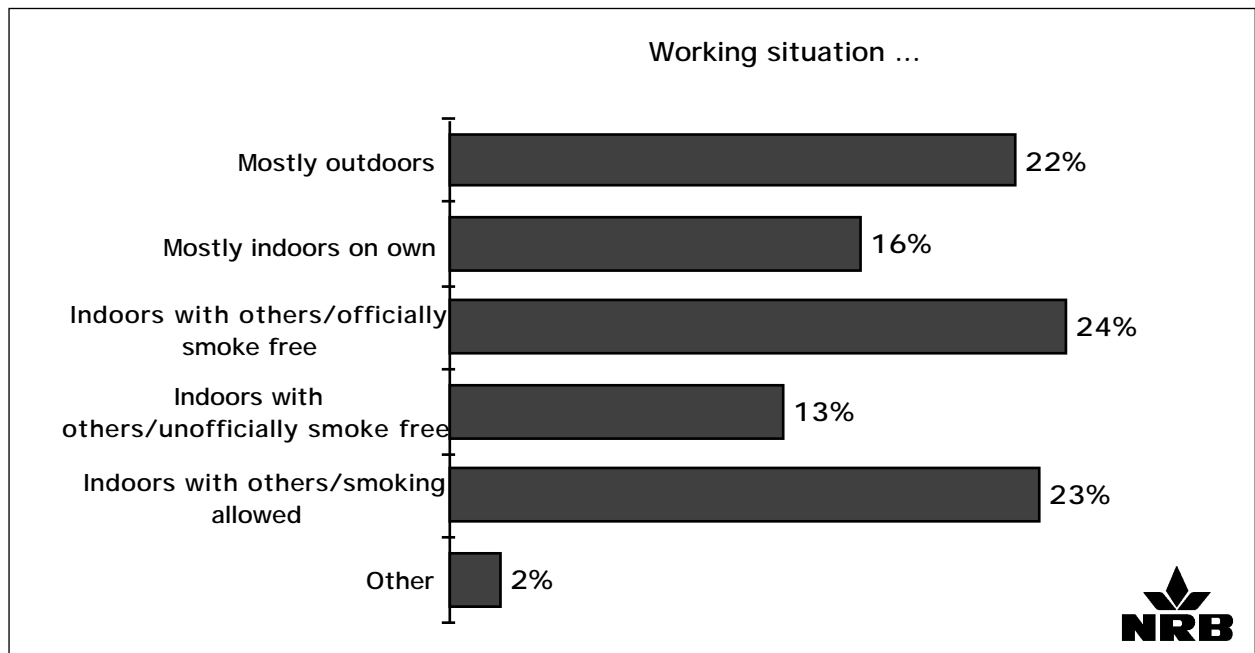
	<u>Tea- breaks</u>	<u>Lunch breaks</u>	<u>During working hours</u>
<b>Sex</b>			
Males	2.2	2.0	1.0
Females	1.9	1.6	0.7
<b>Age</b>			
15-19 years	2.0	1.9	0.9
20-24 years	2.8	2.7	0.9
25-34 years	2.3	2.1	1.0
35-44 years	2.0	1.7	0.9
45-54 years	1.8	1.5	0.8
55+ years	1.4	1.1	0.8
<b>Ethnic</b>			
European	1.9	1.6	0.8
Maori	3.1	2.9	1.4
Pacific Island	4.0	3.9	1.0
<b>Occupation</b>			
White collar	1.7	1.5	0.7
Blue collar	2.6	2.4	1.2

Around half of workers are exposed to at least one other person's smoke during tea and lunch breaks. Around 3 out of 10 are exposed during working hours.

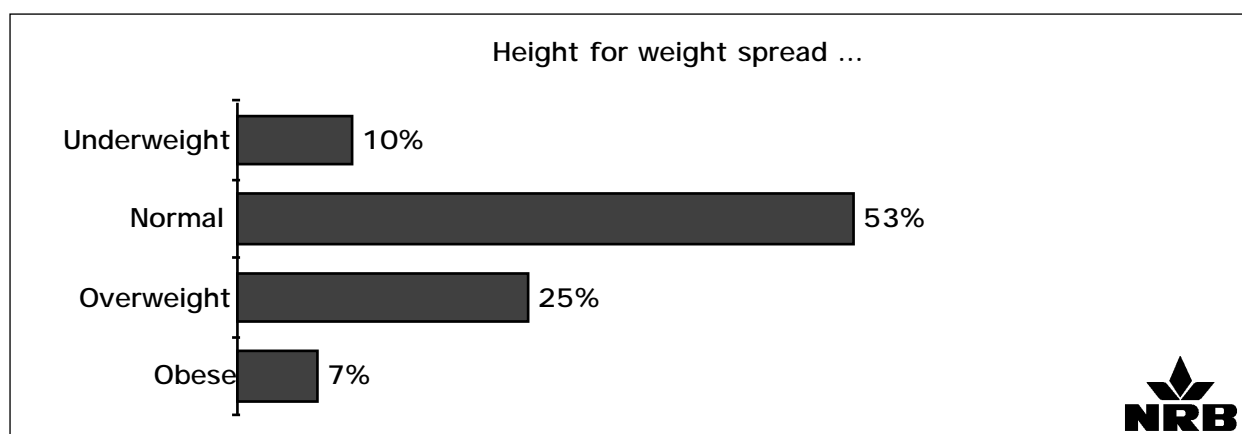
On average, workers are exposed to the smoke of two other people during tea and lunch breaks, and to one during working hours. However during tea-breaks, for instance, 21% of workers are exposed to the smoke of five or more people. The figure for lunch breaks was similar (19%), while during actual working hours only 7% are exposed to five or more smokers. It seems from the table on the left that non-Europeans and those in blue collar jobs are exposed to passive smoking to a greater extent than their European or white collar counterparts.

Of non-smoking workers ...

- 46% are exposed to at least one person's smoke at tea-breaks.
- 40% are exposed to at least one person's smoke at lunch times.
- 24% are exposed to at least one person's smoke during working hours.

f. Working Conditions

Of all those indicating that they are currently in some form of employment 23% are working indoors with others in a workplace where smoking is allowed. Around the same proportion work in an officially smoke-free environment, while for a further 13% their indoor workplace is unofficially smoke free.

8. Height For Weight

Summary Table -  
Percent Who Are Overweight/Obese

	<u>Overweight</u>	<u>Obese</u>
<b>Sex</b>		
Males	33	7
Females	18	8
<b>Age</b>		
15-19 years	9	2
20-24 years	16	4
25-34 years	22	6
35-44 years	29	11
45-54 years	35	12
55+ years	32	6
<b>Ethnic</b>		
European	25	6
Maori	30	17
Pacific Island	32	20
<b>Smoking Frequency</b>		
Non-smoker	22	6
Former smoker	33	10
Up to 10 a day	18	5
11-20 a day	25	9
21+ a day	34	7
<b>Alcohol Consumption</b>		
Non-drinker	22	9
Light	23	7
Medium	27	5
Heavy	30	9

Respondents were categorised according to their height/weight combination into four groupings - underweight, normal, overweight and obese. The formula used was height (metric) ÷ weight ÷ weight. Just over half the population falls into the 'normal' range, with 10% 'underweight'. The third who are heavier than desirable comprise 25% of people who could be regarded as 'overweight' and 7% 'obese'.

When looking at those classified as 'overweight', the tendency to become overweight increases sharply with age - while only one in ten 15-19 year olds are overweight, around one in three of those aged 45 years and over fall into this category. Men are twice as likely as women to be 'overweight'.

Maori and Pacific Island people are a little more likely than Europeans to be 'overweight' and considerably more likely to be 'obese'.

Heavy smokers and drinkers are more likely than their non- or light-smoking and drinking counterparts to be 'overweight'.