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Behavioural Risk Factor Survey (Summer Module 2004)

Main Report

Commissioned by

Surveillance and Epidemiology Branch
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Executive Summary

Introduction

The Social Sciences Research Centre of the University of Hong Kong was commissioned by the Department of Health to conduct a survey on behavioural risk factors. This survey aimed to detect changes in health risk and behaviour as well as to collect further information on the health related behavioural issues among the Hong Kong population. This will provide information to facilitate the planning, implementation and evaluation of health promotion programmes on the prevention of health disorders related to lifestyle and behaviour.

Thirteen areas shown below were covered in this survey:

A. Body weight control
B. Physical exercise/activities
C. Dietary habits
D. Consumption behaviour of certain selected high-risk food items
E. Food handling practices
F. Pattern of alcohol consumption
G. Smoking habits
H. Pedestrian and driver road safety behaviour
I. Traditional Chinese Medicine consultation behaviour
J. Stress management
K. Oral health practices
L. Cervical screening (for female respondents only)
M. Demographic information: gender, age, education, marital status, occupation, monthly personal income and monthly household income.

Research Methodology

This survey was conducted by using Computer Assisted Telephone Interview (CATI). The samples were drawn randomly from a list of telephone numbers which covers unlisted and new numbers. The target respondents were residents in Hong Kong (excluding domestic helpers) and aged 18-64. They were Cantonese, Putonghua or English speakers. A bilingual (Chinese and English) questionnaire with 61 questions was used to collect data. Fieldwork took place between the 4th and 18th October 2004. A total of 2 088 successful interviews were achieved. The contact rate was 51.3% and the response rate was 61.1%. The width of a 95% confidence interval was at most +/- 2.1%. Weighting was applied to age and gender in order to make our findings more representative of the population. Statistical tests were applied to investigate if there is any significant association between sub-group. Only the significant findings at the 5% level (2-tailed) were presented.

Key Findings of the Survey

A Body weight control

According to the WHO classification of weight status (European standard), approximately two-thirds of respondents (68.1%) were classified as 'normal', 17.9% were 'overweight', 10.2% were 'underweight' and 3.8% were 'obese'. However, many respondents did not view their own weight status in the same way that the WHO classification suggested. Respondents' perception about their current weight showed that half of respondents (50.0%) perceived their current weight as 'just right', 40.6% felt they were 'overweight' and only 9.4% found themselves 'underweight'. More specifically, only 35.1% of the respondents who perceived themselves as 'overweight' were classified as 'overweight' by the WHO. Furthermore, only 38.3% of those who felt being 'underweight' were correctly matched by the WHO classification.

Females, the middle aged respondents (35-54), the married, the divorced/separated/widowed, the less educated and the service workers were more likely to view themselves as being 'overweight'.

Only 15.8% of all respondents found a weight difference by more than 10 pounds when compared with one year ago and more than half of them (58.8%) found an increase in weight. Less than one third of all respondents (27.7%) had done something to control their weight in the past year prior to the survey and 62.5% of these respondents aimed to lose weight. Doing physical exercise (80.7%) and changing dietary habit (74.7%) were most frequently adopted by the respondents to control weight and over half of the respondents (57%) have adopted these methods for above 9 months.

B Physical exercise/activities

Walking was the most popular form of physical activity with three-quarters of all respondents (76.6%) walked every day for at least 10 minutes of the past week prior to the survey. In contrast, over half of all respondents did not spend even one day during the week involved in moderate exercise (56.4%) or vigorous exercise (66.1%) for at least 10 minutes. On a weekly basis, respondents spent 6.1 days on walking, 1.7 days on moderate exercise and 1.1 days on vigorous exercise. The daily average time that respondents spent on each type of exercise was 60.8 minutes on walking, 15.6 minutes on moderate exercise and vigorous exercise. On the other hand, all respondents spend an average of 6.2 hours on sitting per day based on their habits during weekdays (Monday to Friday) in the past week prior to the survey.

Based on the categories of physical activity level defined by the International Physical Activity Questionnaire (hereafter called IPAQ) analysis guidelines, slightly over half of respondents (56.5%) were found to be 'minimally active', one-fifth (20.5%) was classified as 'inactive' and the rest (23.0%) was found being 'HEPA active'. Better educated respondents, clerks, managerial/professional workers and those with higher monthly household income were more likely to be 'inactive'. In terms of continuous scoring of the IPAQ analysis, the median scores for vigorous and moderate exercise were 0 MET-minute (METs are multiples of the resting metabolic rate) and the median score for walking was

693 MET-minutes per week.

C Dietary habits

In general, vegetables appear to be more frequently consumed than fruit. Most respondents (84.0%) eat vegetables everyday while only 55.7% of respondents eat fruit everyday. In terms of portion eaten, respondents eat one portion of fruit and 1.1 bowls of vegetables on a daily average. Only slightly less than one fifth of respondents (17.7%) consumed the optimal portion of fruit and vegetables as WHO recommended, i.e. 5 or more servings of fruit and vegetables per day for adults. Respondents aged 18-24, the never married, clerks, service workers and blue collar workers were less likely to do so.

D Consumption behaviour of certain selected high-risk food items

Siu mei (86.6%) was far more prevalently consumed by respondents in the past 3 months prior to the survey than the other high-risk food items, followed by sashimi/raw fish (44.3%) and salad (43.9%). Furthermore, respondents who were more likely to consume the high risk food items including sashimi/raw fish, salad, undercooked eggs and raw oysters tended to be better educated respondents, those with higher monthly household income and younger.

E Food handling practices

Most respondents comply well with the food handling practices questioned. 'Washing all food thoroughly before cooking, especially seafood' (82.5% mentioned *'all of the time'*) was most frequently complied with while 'keeping raw and cooked food separately' (68.2% claimed *'all of the time'*) was less frequently conformed with.

F Pattern of alcohol consumption

Less than half of all respondents (42.7%) were drinkers who had drunk at least one alcoholic drink during the previous month prior to the survey. The average number of standard drinks consumed per day on those drinking days was 2.4. Approximately one-quarter (24.0%) of the drinkers drank at least 5 glasses/cans of alcohol on a single occasion in the past month prior to the survey. These heavy drinkers tended to be males, the youngest respondents aged 18-24, blue collar workers and service workers. According to the British Alcohol Guidelines, three-quarters of these drinkers (74.7%) had their drinking habit within a safe level. Males, less educated respondents and blue collar workers were more likely to have drinking habits exceeding safe levels than their counterparts.

G Smoking habits

Current smokers represented less than one-fifth of the sample (16.7%) and over half of them (52.5%) were heavy smokers who smoked eleven cigarettes or more each day. These heavy smokers were more likely to be male, those aged 45-54, the divorced/separated/widowed, the less educated, blue collar workers and those with monthly household income below $8,000.

H Pedestrian and driver road safety behaviour

Approximately one-fifth of all respondents (23.5%) were drivers in the past 12 months prior to the survey. Although nearly two-thirds of all drivers (63.9%) in our sample had broken the speed limit by more than 15km per hour in varying frequency, the majority of all drivers (92.7%) did not drive within two a hour period after their last drink. The results also revealed that males and younger drivers were more likely to break the speed limit. On the other hand, two-thirds of all respondents (69.0%) conformed *'all of the time'* to the use of a seat-belt as a passenger where it is mandatory or available. However, many pedestrians (69.8%) admitted to crossing the road whilst ignoring traffic instructions to the contrary *'some of the time'*.

I Traditional Chinese Medicine consultation behaviour

Approximately one third of all respondents (30.7%) consulted a Traditional Chinese Medicine Practitioner (TCMP) in the past 12 months prior to the survey. Over two-thirds of them (70.0%) had their last consultation within the past three months prior to the survey. The most frequently mentioned reason for consulting a TCMP during the last consultation was respiratory symptoms/fever/flu (33.1%). Slightly more than half of them (56.8%) did not consult a western doctor before their visit to the TCMP during last consultation. Respondents who were more likely to consult TCMP in the past 12 months prior to the survey tended to be female, aged 35-44, divorced/separated/widowed, managerial/professional workers and those with higher monthly household income.

J Stress management

Exercise (18.9%), listening to music (12.7%) and taking more rest/sleep (11.5%) were the most common methods used by respondents to cope with stress.

K Oral health practices

As for oral health practice, most respondents (83.2%) brush their teeth twice or more per day. However, the use of dental floss appears to be less popular as almost two-thirds of respondents (65.5%) never used it. These respondents not using it were more likely to be males, less educated, blue collar workers and those with lower monthly household income.

L Cervical screening

Nearly two-thirds of female respondents (63.9%) had been screened for cervical smear before. Less than half of these women (47.4%) had their last cervical smear taken within last year. About three-quarters of the women (77.2%) who had more than one cervical smear before have a habit of regular cervical screening. Approximately two-thirds of all female respondents (66.5%) were well aware of the cervical screening program organized by the Department of Health. Television (72.8%) is the most effective channel through which the female respondents heard of this program.

Recommendations

1. Many respondents perceived their weight status in a different way from the WHO classification. More education should be given to the general public on the correct concept of assessing body weight status. This includes promoting the methods of assessing weight status such as the Body Mass Index computation formula.

2. The intake of fruit and vegetables should be further encouraged. Only 17.7% of our respondents met the WHO recommendation of eating 5 or more servings of fruit and vegetables per day. Campaigns should be organized to promote the benefits of eating fruit and vegetables. The optimal portion of intake considered health beneficial should also be promoted. This should particularly target people aged 18-24, never married, clerks, service workers and blue collar workers who were less likely to consume the recommended portion of fruit and vegetables.

3. The road safety behaviour of drivers should be further enhanced. The findings revealed that nearly two thirds of all drivers (63.9%) in our sample break the speed limit by more than 15km per hour in varying frequency, especially male and younger drivers. More education about road safety should be given to these groups of drivers.

4. According to the analysis of the IPAQ short form guideline, 23.0% of respondents were classified as 'HEPA active', 56.5% were 'minimally active' and 20.5% were found 'inactive'. Therefore, the engagement of the general public in physical activities/exercise should be further sustained. Benefits of exercise and the optimal duration and mode of exercise should be promoted. Those who were found to be 'inactive' were more likely to be tertiary educated or above, managerial/professional workers, clerks and those with higher monthly household income. Their reasons of lacking exercise should be investigated in order to encourage them to do more physical activities.

5. About a quarter of drinkers (25.3%) had their drinking habit exceeding safe levels according to the British Alcohol Guidelines. Promotion of safe drinking habit should be particularly targeted at males, people with secondary education or below, service workers and blue collar workers since all of them were more likely to have a less safe drinking habit.

It is very important to understand why the sub-group of respondents behaves significantly different on some of the areas. There might be factors that constrain certain group of people from having a healthier behaviour. For example, some people were lacking exercise due to their long working hours. Therefore, the health promotion programs should take such underlying factors into account and formulate strategic plans to enhance the habits of certain groups of people on the relevant areas that need to be improved. For example, walking can be turning into a health-beneficial exercise for those busy people by advising them to walk for an optimal duration of time every day. On the other hand, the promotional materials such as educational guidelines, leaflets and pamphlets should also be easily accessible at the places where the target group of people will be visiting frequently.

Chapter 1 Introduction

The Social Sciences Research Centre of the University of Hong Kong (SSRC) was commissioned by the Department of Health in August 2004 to conduct a survey on behavioural risk factors. This survey aimed to detect changes in health risk and behaviour as well as to collect further information on the health related behavioural issues among the Hong Kong population. This will provide information to facilitate the planning, implementation and evaluation of health promotion programmes on the prevention of health disorders related to lifestyle and behaviour.

The scope of this survey encompasses the following:

- Distribution of body mass index and waist circumference
- Prevalence of obesity/overweight/underweight
- Pattern of physical activity
- Prevalence of adequate/inadequate fruit and vegetable consumption
- Consumption behaviour of certain selected high-risk food items
- Food handling practices
- Pattern of alcohol consumption
- Smoking habits
- Pedestrian and driver road safety behaviour
- Traditional Chinese Medicine consultation behaviour
- Stress management
- Oral health practices
- Cervical screening

Chapter 2 Research Methodology

2.1 Sampling method

Telephone interview by using CATI (Computer Assisted Telephone Interview) was adopted. A random sample was drawn from 40 000 residential telephone numbers. These numbers were generated from the 2003 English residential telephone directory[1] by dropping last digit, removing duplicates, adding all 10 possible final digits, randomizing order, and selecting as needed. This method provides an equal probability sample that covers unlisted and new numbers but excludes large businesses which use blocks of at least 10 numbers[2].

Where more than one eligible person resided in a household and all were present at the time of telephone contact, the 'next birthday' rule was applied to each successfully contacted residential unit, i.e., the household member who has his/her birthday the soonest will be selected. This reduces the over-representation of housewives in the sample.

2.2 Target respondents

Eligible respondents were residents in different districts of Hong Kong and were aged between 18 and 64. They were Cantonese, Putonghua or English speakers. Domestic helpers were excluded.

2.3 Questionnaire design

A bilingual (Chinese and English) questionnaire with 48 pre-coded questions and 13 open-ended questions was designed to cover the following 13 areas:

- Body weight control
- Physical exercise/activities
- Dietary habits
- Consumption behaviour of certain selected high-risk food items
- Food handling practices
- Pattern of alcohol consumption
- Smoking habits
- Pedestrian and driver road safety behaviour
- Traditional Chinese Medicine consultation behaviour
- Stress management
- Oral health practices

1 Chinese residential telephone directory is not used because the total number of telephone contacts is less than the English residential telephone directory. This process will have a lower response rate than pure directory sampling which does not cover unlisted and new numbers.

2 This selection process includes some business and fax numbers so that the contact rate is lower than a pure directory sample.

- Cervical screening (for female respondents only)
- Demographic information: gender, age, education, marital status, occupation, monthly personal income and monthly household income.

A copy of the questionnaire is enclosed in Appendix A.

2.4 Pilot study

A pilot study comprising 75 successfully completed interviews was conducted on 21st September 2004 to test the length, logic, wording and format of the questionnaire. The data collected from these pilot interviews was not counted as part of the survey proper.

2.5 Fieldwork

Fieldwork took place between the 4th and 18th October 2004. From the 4th - 6th, telephone calls were made between 6:30pm to 10:30pm. From the 7th - 18th, fieldwork started earlier at 4:00pm and finished at 10:30pm.

2.6 Response rate

A total of 14 097 telephone numbers were attempted. The number of successfully completed interviews was 2 088. Refusal and drop-out cases amounted to 1 329. The refusal and drop-out cases were contacted once more at a different time in order to try and convert them to successful cases. The cases which were 'not at home' (2 354), 'busy' (200) and 'no answer' (3 042) were attempted three times before classification as non-contact cases. The contact rate was 51.3%[3] and the overall response rate was 61.1%[4]. Table 2.6 details the breakdown of telephone contact status.

3 Contact rate = the number of answered telephone calls divided by the total number of calls attempted, i.e. from table 2.6, Sum of (type 1 to 8) / type 12 = (2088+405+924+17+465+772+2354+200)/14097=51.3%.

4 Response rate = the number of successfully completed interviews divided by the sum of the numbers of successfully completed interviews, drop-out cases and refusal cases, i.e. from table 2.6, (type 1) / (type 1 + type 2 + type 3) = 2088/(2088+405+924)=61.1%.

Table 2.6: Status of telephone attempted

Type	Status of telephone attempted[5]	Number of cases
1	Success	2 088
2	Drop-out	405
3	Refusal	924
4	Language problems	17
5	Not eligible	465
6	Business lines	772
7	Not at home	2 354
8	Busy	200
9	No answer	3 042
10	Fax/data lines	600
11	Invalid	3 230
12	TOTAL	14 097

2.7 Sample size and sample error

A sample size of 2 088 completed interviews were achieved (target sample size was 2 000). The width of a 95% confidence interval was at most ＋／－ 2.1%[6]. This means that we have 95% confidence that the true population proportion falls within the sample proportion plus or minus 2.1%. For example, 80% of the respondents in the sample claimed that their weights differ by more than 10 pounds in comparison with one year ago. Then the conservative 95% confidence interval for the true percentage of the population stating a weight difference for the above question falls between 77.9% and 82.1%, i.e., 80%± 2.1%.

2.8 Quality control

All SSRC interviewers were well trained in a standardized approach prior to the commencement of the survey. All interviews were conducted by experienced interviewers fluent in Cantonese, Putonghua and English.

5 'Drop-out': eligible respondents who initially accepted the interview but dropped-out due to some reasons. 'Refusal': eligible respondents who refused the interview. 'Language problems': eligible respondents who were not able to speak clearly in any of our 3 dialects. 'Not at home': eligible respondents were not in at the time of telephone contact. 'Busy': eligible respondents were busy. 'Invalid': not a valid telephone line (because we used a random method to generate telephone numbers, see section 2.1)

6 As the population proportion is unknown, 0.5 is put into the formula of the sampling error to produce the most conservative estimation of the sampling error. The confidence internal width is ＋／－ 1.96 $* \sqrt{\frac{0.5 * 0.5}{2088}} * 100\% = 2.1\%$.

The SSRC engages in quality checks for each stage of the survey to ensure satisfactory standards of performance. At least 15% of the questionnaires completed by each interviewer were checked by the SSRC independently.

2.9 Data processing and statistical analysis

Our survey revealed some proportional differences in gender and age when compared with the Hong Kong population data compiled by the Census and Statistics Department (hereafter called the CSD) in mid-2004. The proportion of respondents among age groups 18-24 and 40-44 are higher than the population while the proportion of respondents aged 25-29, 30-34 and 55-59 are lower. Our sample also comprised a higher percentage of females in comparison with the population. Table 2.9a shows the proportional differences in terms of age and gender.

Table 2.9a: Distribution differences of age and gender between our survey and the Hong Kong population data compiled by the CSD in Mid-2004*

Age Group	**This Survey**			**Hong Kong Population Data – from the CSD (Mid-2004)***		
	Male	**Female**	***Total***	**Male**	**Female**	***Total***
	% of Total	% of Total	*% of Total*	% of Total	% of Total	*% of Total*
18-24	**7.61**	**7.42**	*15.04*	**6.64**	**6.64**	*13.28*
25-29	**3.83**	**5.03**	*8.86*	**4.76**	**5.39**	*10.14*
30-34	**4.26**	**5.22**	*9.48*	**5.24**	**7.01**	*12.25*
35-39	**4.74**	**8.09**	*12.84*	**5.80**	**7.55**	*13.35*
40-44	**5.94**	**12.16**	*18.10*	**6.97**	**7.97**	*14.95*
45-49	**5.65**	**7.38**	*13.03*	**6.53**	**6.78**	*13.31*
50-54	**4.17**	**6.99**	*11.16*	**5.21**	**5.26**	*10.47*
55-59	**2.59**	**3.83**	*6.42*	**3.76**	**3.60**	*7.36*
60-64	**3.02**	**2.06**	*5.08*	**2.62**	**2.26**	*4.88*
Total	41.81	58.19	*100.00*	47.54	52.46	*100.00*

** Provisional figures obtained from the CSD*

In view of the demographic differences between our sample and the population, weighting was applied to gender and age in order to make our results more representative of the general population. The weights are the ratio of the age and gender distribution of the population to that of our sample (Table 2.9b).

Table 2.9b: Weights by age and gender applied in the analyses

Age	Male	Female
18-24	0.87253	0.89390
25-29	1.24112	1.07139
30-34	1.23025	1.34287
35-39	1.22377	0.93223
40-44	1.17437	0.65539
45-49	1.15623	0.91921
50-54	1.25092	0.75237
55-59	1.45427	0.94023
60-64	0.86724	1.09804

Statistical tests were applied to study the significant differences between sub-group. Associations between selected demographic information and responses of selected questions were examined. Significance testing was conducted at the 5% level (2-tailed).

The statistical software, SPSS for Windows version 12.0, was used to perform all statistical analyses.

Chapter 3 Findings of the Survey

This chapter presents the findings of this survey after weighting for gender and age. Some percentages in the figures might not add up to 100% because of rounding problems.

3.1 Demographic

This section briefly describes the characteristics of respondents in this survey (Table 3.1).

3.1.1 Gender and age

Weighting was applied to gender and age in our survey such that the distribution of gender and age reported in table 3.1 is identical to the Hong Kong population data compiled by the CSD in mid-2004 (Table 2.9a).

3.1.2 Marital status

Over half of all respondents (56.4%) were married with child/children. Approximately one-third (32.4%) were never married. 7.9% were married without child/children while 2.8% were divorced/separated respondents. Less than one per cent (0.6%) of the respondents was widowed.

3.1.3 Education attainment

A larger proportion of the respondents had an education level of secondary or above. 40.4% had either completed secondary (F5) or matriculation. 28.1% attained tertiary education or above while the rest (31.4%) had an education level of lower secondary or below.

3.1.4 Occupation

About one-third of the respondents were not working (34.8%). This included 7% students and 18.7% home-maker, 4.7% unemployed and 4.5% retired or other non-working persons. For the working respondents, clerks (15.1%) represented the largest proportion, followed by professional (8.1%) and service workers (8.0%).

3.1.5 Income

Respondents more commonly had a monthly personal income within $10,000 - $19,999 (37.2%) or below $10,000 (34.4%).

In terms of monthly household income, a larger proportion of the respondents were from the category of $10,000-$19,999 (29.3%), followed by $20,000-$29,999 (20.6%).

Table 3.1: Demographic information (Q35 – Q43)[7]

Gender	Base = 2 088	Occupation	Base = 2 047
Male	47.5%	Employers/ managers/ administrator	5.7%
Female	52.5%	Professional	8.1%
		Associate professional	7.1%
Age	Base = 2 088	Clerk	15.1%
18-24	13.3%	Service worker	8.0%
25-29	10.1%	Shop sales worker	3.1%
30-34	12.3%	Skilled agricultural/ fishery worker	2.7%
35-39	13.3%	Craft and related worker	3.8%
40-44	14.9%	Plant and machine operator and assembler	5.6%
45-49	13.3%	Unskilled worker	5.9%
50-54	10.5%	Student	7.0%
55-59	7.4%	Home-maker	18.7%
60-64	4.9%	Unemployed person	4.7%
		Retired person	4.0%
		Other non-working person	0.5%
Marital Status	Base = 2 084	Monthly Personal Income	Base = 1 250
Never married	32.4%	Below $10,000	34.4%
Married and with child	56.4%	$10,000-$19,999	37.2%
Married and without child	7.9%	$20,000-$29,999	14.7%
Divorced/ separated	2.8%	$30,000-$49,999	9.5%
Widowed	0.6%	$50,000 or above	4.2%
Educational Attainment	Base = 2 087	Monthly Household Income	Base = 1 634
Primary or below	13.8%	Below $10,000	17.2%
Had not completed secondary	17.6%	$10,000-$19,999	29.3%
Completed secondary (F5)	32.6%	$20,000-$29,999	20.6%
Matriculation	7.8%	$30,000-$49,999	18.9%
Tertiary or above	28.1%	$50,000 or above	13.9%

7 Refer to the question number in the survey questionnaire, see Appendix A.

3.2 Body weight control

Eight questions were asked in this section to ascertain the respondent's height, weight, waist circumference and their weight controlling habits. Furthermore, their Body Mass Index (BMI) scores were derived and classified to assess their weight status according to the WHO classifications.

Responses out of the suggested range were labelled as outliers and were excluded from analyses. Some responses for body weight were found to be out of the suggested range 37-120kg and for waist were found to be out of 50-120cm. Where there were cases treated as outliers for weight, the responses of these cases for height and waist circumference were also treated as outliers. Twelve cases were treated as outliers for height, weight and waist circumference and for the BMI analyses. Besides, nine inconsistent responses were recorded for the question asked respondents' perception about their current weight status and their aim of controlling weight (e.g. some felt underweight but still aimed to lose weight). These nine cases were treated as outliers in the analyses from section 3.2.7 to 3.2.10.

3.2.1 Height (without wearing shoes)

The height of the respondents without wearing shoes ranged from 115 to 190cm. In particular, 38.8% were within the range 160 to 169cm, followed by 32.5% in the range of 150 to 159cm. The mean, median and mode heights were 163.3cm, 163.0cm and 160.0cm respectively (Table 3.2.1).

Table 3.2.1: Height distribution of respondents (percentage, mean, median and mode) (Q1a)

Height (cm)	Number	% of Total
Less than 150	42	2.0%
150 - 159	674	32.5%
160 - 169	805	38.8%
170 - 179	472	22.7%
180 or above	84	4.0%
Total	*2 076**	*100.0%*
Other statistics	Total	cm
Mean	2 076*	163.3
Median	2 076*	163.0
Mode	2 076*	160.0

**All respondents excluding outliers*

3.2.2 Weight (wearing simple clothes)

The weight of the respondents when wearing simple clothes ranged from 37 to 120kg. Slight more than one-third of the respondents (36.7%) fell into the weight range 50 to 59kg,

followed by 27.2% of respondents in the range of 60 to 69kg. The mean, median and mode weights were 60.4kg, 59.0kg and 55.0kg respectively (Table 3.2.2).

Table 3.2.2: Weight distribution of respondents (percentage, mean, median and mode) (Q1b)

Weight (kg)	Number	% of Total
Less than 40	4	0.2%
40 - 49	340	16.4%
50 - 59	763	36.7%
60 - 69	565	27.2%
70 - 79	264	12.7%
80 or above	140	6.8%
Total	*2 076**	*100.0%*
Other statistics	Total	kg
Mean	2 076*	60.4
Median	2 076*	59.0
Mode	2 076*	55.0

**All respondents excluding outliers*

3.2.3 Waist circumference

The waist circumference of the respondents ranged from 50 to 120cm. More respondents had their waist circumference fell into the range of 70 to 79cm (39.7%). The mean, median and mode waist circumferences were 74.1cm, 73.0cm and 80.0cm respectively (Table 3.2.3).

Table 3.2.3: Waist circumference distribution of respondents (percentage, mean, median and mode)(Q1c)

Waist circumference (cm)	Number	% of Total
Less than 60	28	1.3%
60 - 69	595	28.7%
70 - 79	823	39.7%
80 - 89	517	24.9%
90 or above	113	5.4%
Total	*2 076**	*100.0%*
Other statistics	Total	cm
Mean	2 076*	74.1
Median	2 076*	73.0
Mode	2 076*	80.0

**All respondents excluding outliers*

3.2.4 Body Mass Index (BMI)

BMI scores were derived from weight and height by the following formula:

BMI = body weight (kg) / [height (m)]^2

3.2.5 Weight status by WHO classification

Respondents were classified into four categories of weight status according to the WHO classification criteria (European standard) in table 3.2.5. Under these criteria, approximately two-thirds of respondents (68.1%) were classified as 'normal'. 'Overweight' and 'underweight' respondents represented 17.9% and 10.2% of the sample respectively. The rest (3.8%) was regarded as 'obese' (Table 3.2.5).

Table 3.2.5: WHO classification for weight status (European standard)

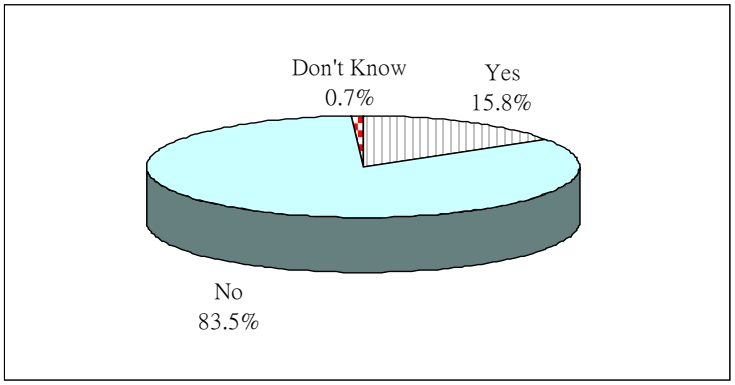
Weight status by WHO classifications	**BMI score**	Number	% of Total
Underweight	BMI < 18.5	212	10.2%
Normal	BMI 18.5 – 24.9	1 413	68.1%
Overweight	BMI 25.0 – 29.9	371	17.9%
Obese	BMI≥ 30.0	80	3.8%
Total		*2 076**	*100.0%*

**All respondents excluding outliers*

3.2.6 Weight difference from one year ago

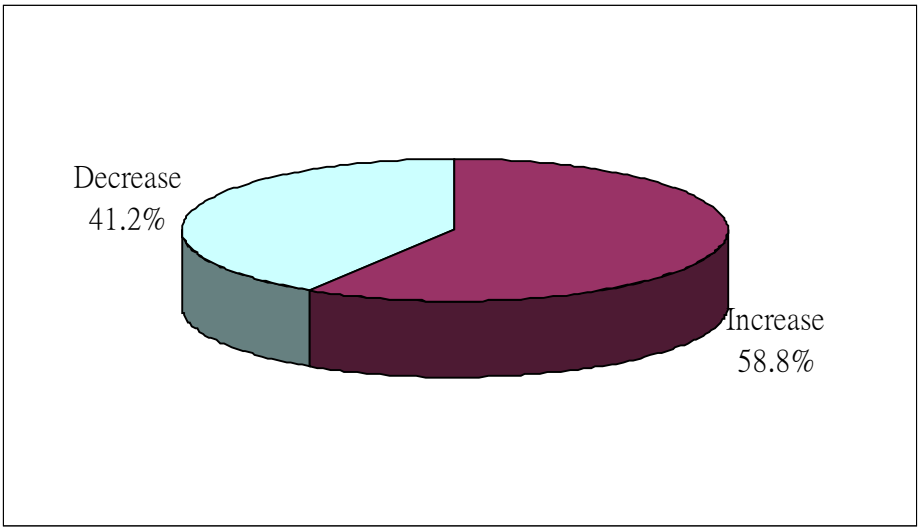
Respondents were asked whether they had a weight difference by more than 10 pounds when compared with one year ago, 83.5% of them did not find such a difference and 15.8% did have a difference (Fig. 3.2.6a). Of the respondents who had a weight difference, 58.8% claimed to have a weight increase while the rest had a weight reduction by more than 10 pounds (Fig. 3.2.6b).

Fig. 3.2.6a: Weight differed by more than 10 pounds when compared with one year ago (Q2a)



Base: All respondents = 2 088

Fig. 3.2.6b: Weight increased or decreased by more than 10 pounds when compared with last year (Q2b)



Base: Respondents who had a weight difference by more than 10 pounds when compared with one year ago = 330

3.2.7 Perception about current weight status

Half of the respondents perceived their current weight status as 'just right'. 40.6% felt being 'overweight' and only 9.4% found themselves 'underweight' (Table 3.2.7a).

Table 3.2.7a: Perception about current weight status (Q3)

Perception about current weight	Number	% of Total
Underweight	195	9.4%
Just Right	1 038	50.0%
Overweight	844	40.6%
Total	*2 077**	*100.0%*

**All respondents excluding refusal and outliers*

Table 3.2.7b shows differences of weight status between the classification of the WHO and the respondents' perception. About half of respondents (49.9%) viewed their weight status as 'just right' but 68.1% of respondents were actually 'normal' under the WHO classification. More respondents perceived themselves being 'overweight', this can be reflected by 40.7% of respondents felt being 'overweight' compared to only 21.8% were classified as 'overweight' & 'obese' according to the WHO criteria (Table 3.2.7b).

Table 3.2.7b: Comparison of weight status between WHO classification and respondents' perception about their current weight (Q3)

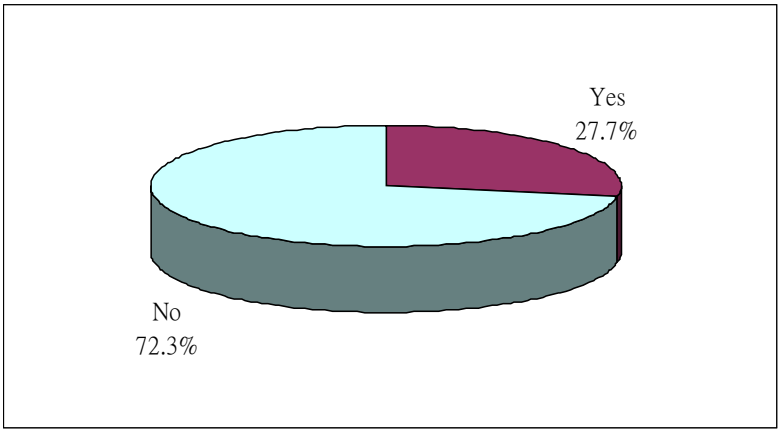
Cross-tabulation		Weight status by WHO classification				
		Underweight	Normal	Overweight	Obese	*Total*
Respondents' perception about current weight	Overweight	9	482	295	55	*841*
	% of Total	0.4%	23.4%	14.3%	2.7%	*40.7%*
	Just right	126	808	74	22	*1 030*
	% of Total	6.1%	39.1%	3.6%	1.1%	*49.9%*
	Underweight	74	115	1	3	*193*
	% of Total	3.6%	5.6%	0.0%	0.1%	*9.4%*
	Total	*209*	*1 405*	*370*	*80*	*2 064**
	% of Total	*10.1%*	*68.1%*	*17.9%*	*3.9%*	*100.0%*

** All respondents excluding refusal, outliers and missing responses either in the question of perception about current weight or the weight status by WHO classification. The percentages of respondents' perception about current weight and their weight status by WHO classification are slightly different from Table 3.2.5 and 3.2.7a since the bases are different.*

3.2.8 Weight control

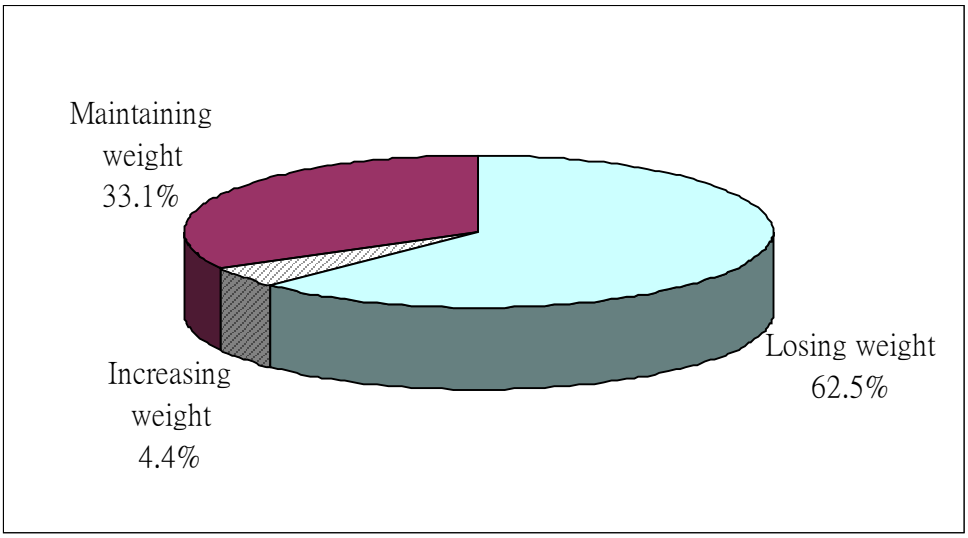
During the past 12 months prior to the survey, more than a quarter of the respondents (27.7%) have done something deliberately to control their weight (Fig. 3.2.8a). Among these respondents, 62.5% of them aimed to lose weight, 33.1% were to maintain weight and only 4.4% reported trying to increase weight (Fig. 3.2.8b).

Fig. 3.2.8a: Controlling weight deliberately in previous 12 months prior to the survey (Q4a)



Base: All respondents excluding outliers = 2 079

Fig. 3.2.8b: Purpose of controlling weight (Q4b)

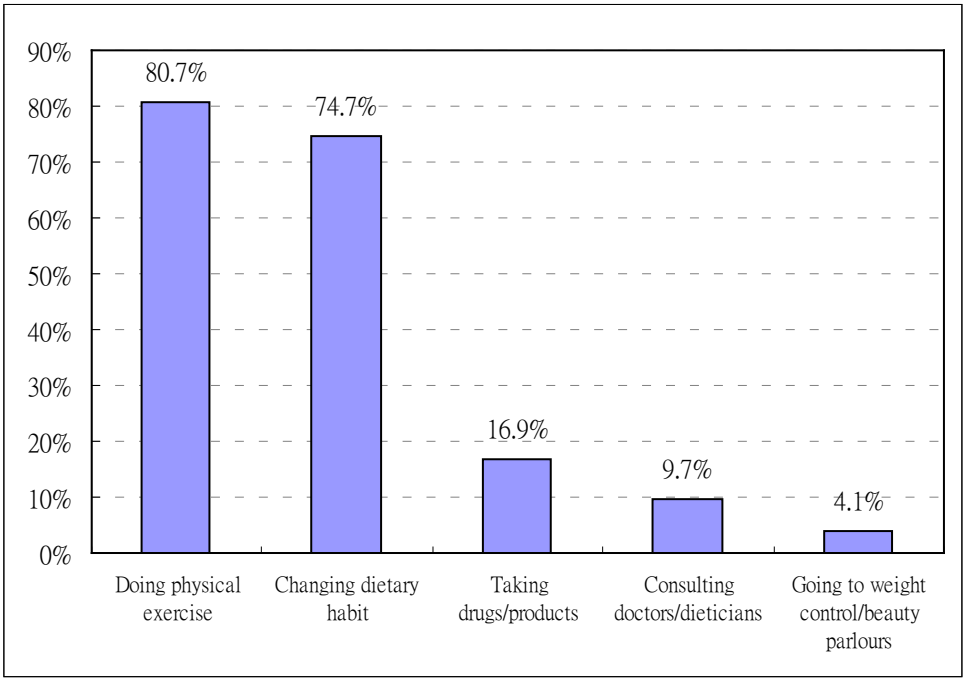


Base: Respondents who intended to control their weight, excluding refusal and outliers = 574

3.2.9 Methods adopted to control weight

The most commonly used methods reported by respondents who intended to control weight were 'physical exercise' (80.7%) and 'changing dietary habits' (74.7%). The other less frequently mentioned methods included 'taking drugs/products' (16.9%), 'consulting doctors/dieticians' (9.7%) and 'going to weight control/beauty parlours' (4.1%) (Fig. 3.2.9).

Fig. 3.2.9: Methods used to control weight (Q5a)

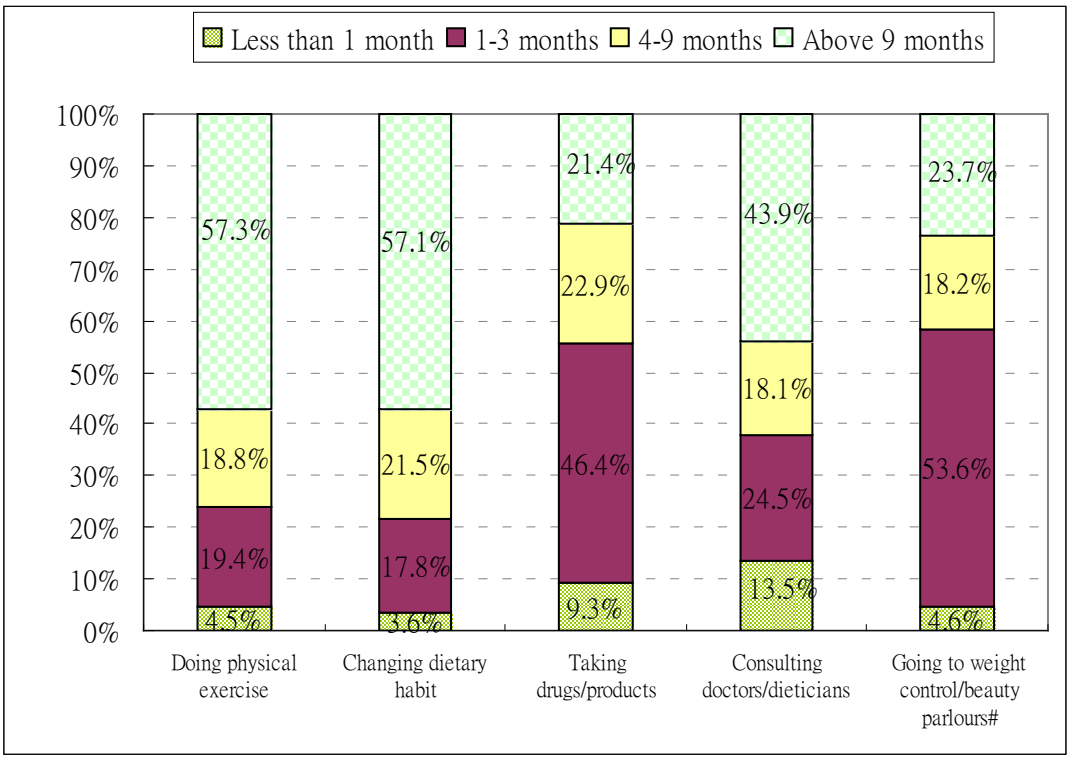


Base: Respondents who intended to control their weight excluding outliers = 575 (multiple responses)

3.2.10 Length of time engaged in weight controlling activities

Most respondents have used the aforementioned methods for at least one month. Respondents who used physical exercise and dietary habits to control their weight appear to be more determined and persistent. Over half of them (57%) have adopted these methods for above 9 months. The pattern of length of time in taking drugs/products and going to weight control/beauty parlours is quite similar. Of the respondents who have used these methods, about one fifth of them have used it for more than 9 months while approximately half have adopted for 1-3 months. As for the respondents who controlled their weight by consulting doctors/dieticians, 43.9% of them have maintained this method for more than 9 months while 24.5% engaged in it for about 1-3 months (Fig. 3.2.10).

Fig. 3.2.10: Length of time in using different methods to control weight (Q5b)



Base: Respondents who used the method excluding outliers (Doing physical exercise = 464; Changing dietary habits = 430; Taking drugs/products = 97; Consulting doctors/dieticians = 56; Going to weight control/beauty parlours = 23)
 # small base: <30

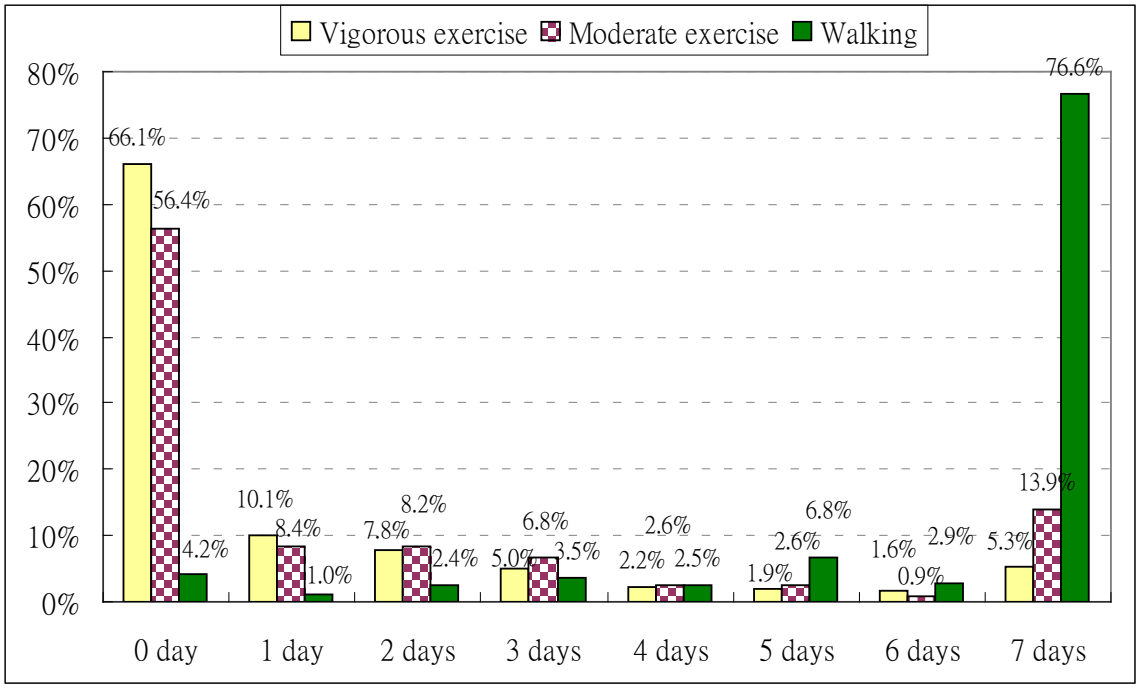
3.3 Physical exercise/activities

Seven questions were asked in this section to understand the frequency and duration of the respondents engaged in physical exercise/activities[8]. All the physical exercise/activities were referring to those lasted for at least 10 minutes and based on their experiences during the past 7 days prior to the survey. These questions were also used for analysing respondents' physical activity levels based on the International Physical Activity Questionnaire (IPAQ) analysis guidelines.

3.3.1 Frequency of physical activities per week

On a weekly basis walking appears to be far more prevalent than vigorous and moderate exercise. Over three-quarters of respondents (76.6%) spent at least 10 minutes walking every day of the past week prior to the survey. In contrast, only 33.9% of respondents reported spending at least one day in the past week prior to the survey engaged in vigorous exercise and 43.6% in moderate exercise (Fig. 3.3.1a).

Fig. 3.3.1a: Number of days per week spent on doing each type of exercise in the past week prior to the survey (Q6, 8, 10)



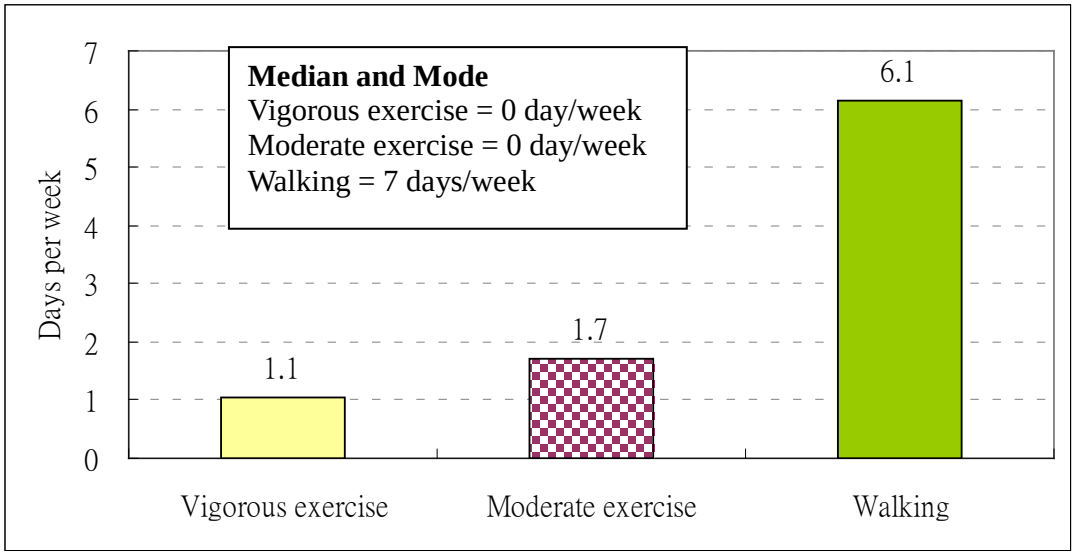
Base: All respondents = 2 088

8 Respondents were informed of the definitions of vigorous physical activities, moderate physical activities, walking and sitting. Vigorous physical activities are defined as those that make people breathe much harder than normal, for example aerobics, football, swimming, heavy physical work and jogging. Moderate physical activities are defined as those that make people breathe somewhat harder than normal, for example bicycling, washing cars/polishing, fast walking and cleaning windows. Walking includes walking to work or school, walking to travel from place to place and walking for leisure. All the questions about vigorous exercise, moderate exercise and walking only referred to those activities on which the respondents have spent at least 10 minutes at a time.

Fig. 3.3.1b shows the weekly averages, i.e., the average number of days during the past 7 days prior to the survey engaged in vigorous exercise, moderate exercise or walking for at least 10 minutes.

Walking appears to be the most frequent physical activity with respondents, on average, spending
6.1 days per week. Vigorous and moderate exercise was less frequent. The average number of days per week spent on these two exercise being 1.1 and 1.7 respectively. The median and mode values were 0 day for moderate and vigorous exercise while 7 days for walking.

Fig. 3.3.1b: Weekly average number of days spent on different types of exercise and median and mode (Q6, 8, 10)



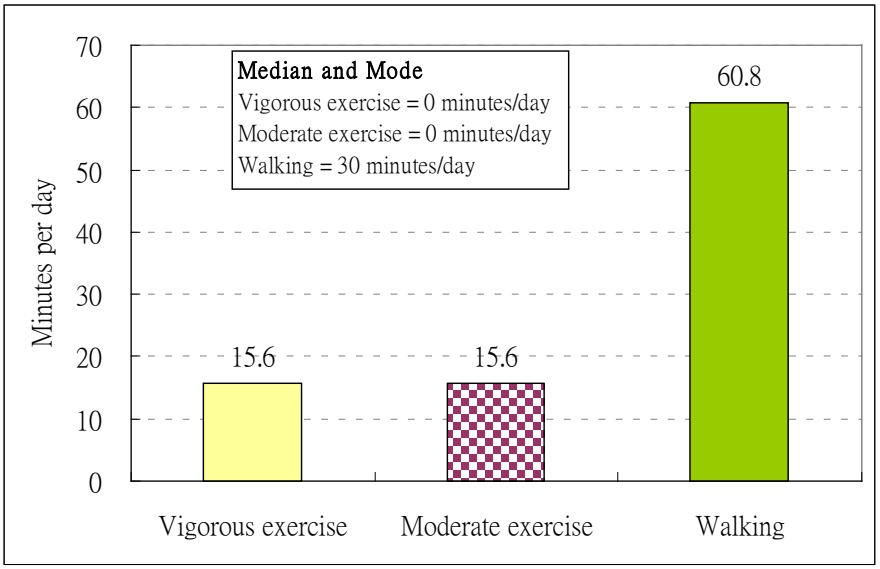
Base: All respondents = 2 088

3.3.2 Daily average time spent on physical activities/exercise[9]

The average length of time per day spent on each type of exercise was 15.6 minutes for vigorous exercise and moderate exercise, and 60.8 minutes for walking. The median and mode average time spent per day were 0 minute for vigorous and moderate exercise and 30 minutes for walking (Fig. 3.3.2a).

9 The daily average minutes spent on each type of exercise was computed by multiplying the average number of days engaged in each type of exercise on a weekly basis and the average minutes of time spent on each type of exercise on those days they have done exercise and then divided by 7 days. Vigorous exercise: (Q6xQ7)/7; Moderate exercise: (Q8xQ9)/7; Walking: (Q10xQ11)/7.

Fig. 3.3.2a: Daily average minutes spent on different types of exercise and median and mode (Q6,7,8, 9,10, 11)



Base: All respondents excluding 'don't know' (Vigorous exercise = 2 088; Moderate exercise = 2 085; Walking = 2 083)

The proportions of all respondents who spent more than 30 minutes on a daily average were 9.7% for vigorous physical activities, 9.9% for moderate physical activities and 37.7% for walking (Table 3.3.2b).

Table 3.3.2b: Daily average time spent on doing different types of exercise (Q6,7,8,9,10, 11)

Minutes	Vigorous exercise		Moderate exercise		Walking	
	Number	% of Total	Number	% of Total	Number	% of Total
Below 10	1 629	78.0%	1 518	72.8%	214	10.3%
10 - 15	77	3.7%	132	6.3%	271	13.0%
16 - 30	181	8.7%	228	10.9%	812	39.0%
31 - 60	112	5.4%	116	5.6%	402	19.3%
Above 60	89	4.3%	91	4.4%	384	18.4%
Total	*2 088*	*100.0%*	*2 085**	*100.0%*	*2 083**	*100.0%*

** All respondents excluding 'don't know'*

3.3.3 Sitting[10]

Respondents were asked how much time on average they spent on sitting during weekdays (Monday to Friday) in the past week prior to the survey. Table 3.3.3 indicates that 40.7% of all respondents sat for more than 6 hours per day. Based on weekdays (Monday to Friday), respondents spent an average of 6.2 hours on sitting per day. The median and mode were 6 hours and 8 hours respectively (Table 3.3.3).

10 Sitting includes time spent sitting at work, at home, visiting friends, reading, travelling on public transport and lying down to watch television.

Table 3.3.3: Average time spent on sitting per day during weekdays in the past week prior to the survey (percentage, mean, median and mode) (Q12)

Hours	Sitting	
	Number	% of Total
Below 2	82	3.9%
2 - 4	659	31.5%
4.1 - 6	499	23.9%
6.1 - 8	365	17.5%
8.1 - 10	307	14.7%
Above 10	177	8.5%
Total	*2 088*	*100.0%*
Other statistics	Total	Hours
Mean	2 088	6.2
Median	2 088	6.0
Mode	2 088	8.0

**All respondents*

3.3.4 Analysis of the International Physical Activity Questionnaire

The analysis in this section is based on the guidelines for data processing and analysis of the International Physical Activity Questionnaire (IPAQ) – short form, version 2.0, April 2004 revised version[11]. A copy of the guidelines is enclosed in Appendix B.

The questions about physical activities covered in our survey (see Appendix A, part B, Q6 to Q12) align with the IPAQ short form which includes vigorous physical activities, moderate physical activities and walking. The age range of our respondents (18-64) also matches the age criteria of the IPAQ analysis, i.e., 15-69.

The IPAQ short form guideline provides standard methods for the cleaning and treatment of dataset. In this section, our analyses follow the data processing rules (see Appendix B for details) specified by the IPAQ short form guideline. Thirteen cases were excluded from this part of analyses due to the classification of outliers according to the data cleaning rules of the guideline or the responses of 'don't know'.

The analysis of the IPAQ short form provides two indicators of physical activity, namely categorical and continuous indicators.

11 This document for data processing and analysis of the IPAQ is available on the website www.ipaq.ki.se.

3.3.4.1 Categorical scoring

The categorical score comprises three levels of physical activity, namely inactive, minimally active and HEPA active. Table 3.3.4.1 details the criteria of classification.

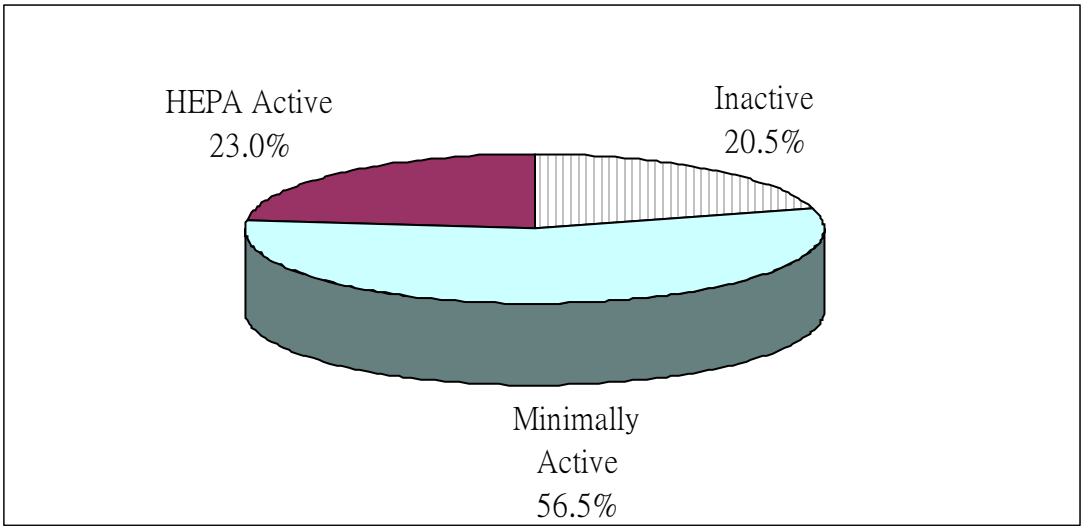
Table 3.3.4.1: Categorical scoring classification of physical activity

Level of physical activity	Categorical scoring classification criteria
Inactive	• No activity is reported OR • Some activity is reported but not enough to meet Categories "Minimally active" or "HEPA active"
Minimally active	Any one of the following 3 criteria • 3 or more days of vigorous activity of at least 20 minutes per day OR • 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR • 5 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 600 MET-min/week
HEPA active	Any of the following 2 criteria • Vigorous-intensity activity on at least 3 days and accumulating at least 1500 MET-minutes/week OR • 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 3000 MET-minutes/week

Source: guidelines for data processing and analysis of the IPAQ – short form

According to the classification criteria in table 3.3.4.1, slightly more than half of the respondents (56.5%) in our survey were classified as 'minimally active', 23.0% were 'HEPA active' while about one-fifth (20.5%) were found 'inactive' (Fig. 3.3.4.1).

Fig. 3.3.4.1: Classification of respondent's physical activity level



Base: All respondents excluding 'don't know', outliers according to the data processing rules of the IPAQ analysis guideline = 2 074

3.3.4.2 Continuous Scoring

Continuous scoring is another measurement of physical activity suggested in the IPAQ short form guideline. This is achieved by weighting each type of activity by its energy requirements defined in METS (METs are multiples of the resting metabolic rate) to yield a score in MET-minutes. A MET-minute[12] is computed by multiplying the MET score by the minutes performed. MET-minute scores are equivalent to kilocalories for a 60 kilogram person. Kilocalories can be computed from MET-minutes using the following equation: MET-minute x (weight in kilograms/60 kilograms). The selected MET values were derived from work undertaken during the IPAQ Reliability Study conducted in 2000-2001. This study yielded three MET values for each type of activity, namely walking = 3.3 METs, moderate physical activity = 4.0 METs and vigorous physical activity = 8.0 METs. These MET values are used for the continuous scoring analysis of IPAQ data and were followed in the analyses in this part.

More specifically, the continuous score for each type of physical activity was computed according to the formula and examples in table 3.3.4.2a.

Table 3.3.4.2a: Continuous score computation

MET-min per week for each activity	= (MET level) x (min of activity) x (events per week)
Total MET-min per week	= (Walk METs x min x days) + (Mod METs x min x days) + (Vig METs x min x days)
Example:	***Given:*** *MET-min/week for 30 min episodes, 5 times/week,* *MET levels for walking =3.3METs, Moderate PA= 4.0 METs and Vigorous PA= 8.0 METs*
MET-min/week for Walking	= 3.3 x 30 x 5 = 495 MET-min/week
MET-min/week for Moderate PA	= 4.0 x 30 x 5 = 600 MET-min/week
MET-min/week for Vigorous PA	= 8.0 x 30 x 5 = 1,200 MET-min/week
Total MET-min/week	Total = 2,295MET-min/week

Source: guideline for data processing and analysis of the IPAQ – short form

As suggested by the IPAQ short form guideline, the continuous indicator is presented as median minutes or median MET-minutes rather than mean minutes or mean MET-minutes given the non-normal distribution of energy expenditure in many populations.

12 Source of information: guideline for data processing and analysis of the IPAQ

Table 3.3.4.2b shows the median of the continuous scores for each type of physical activities. The medians for vigorous physical activity and moderate activity were both 0 while the median for walking was 693 MET-minutes per week. The median score of these three activities was 1386 MET-min/week.

Table 3.3.4.2b: Medians of the IPAQ continuous score for each type of physical activity

Statistics	Continuous Score (MET-minutes/week)			
	Vigorous exercise	Moderate exercise	Walking	Total
Median	0	0	693	1 386

Base: All respondents excluding 'don't know', outliers according to the data processing rules of the IPAQ analysis guideline = 2 074

3.4 Dietary habits

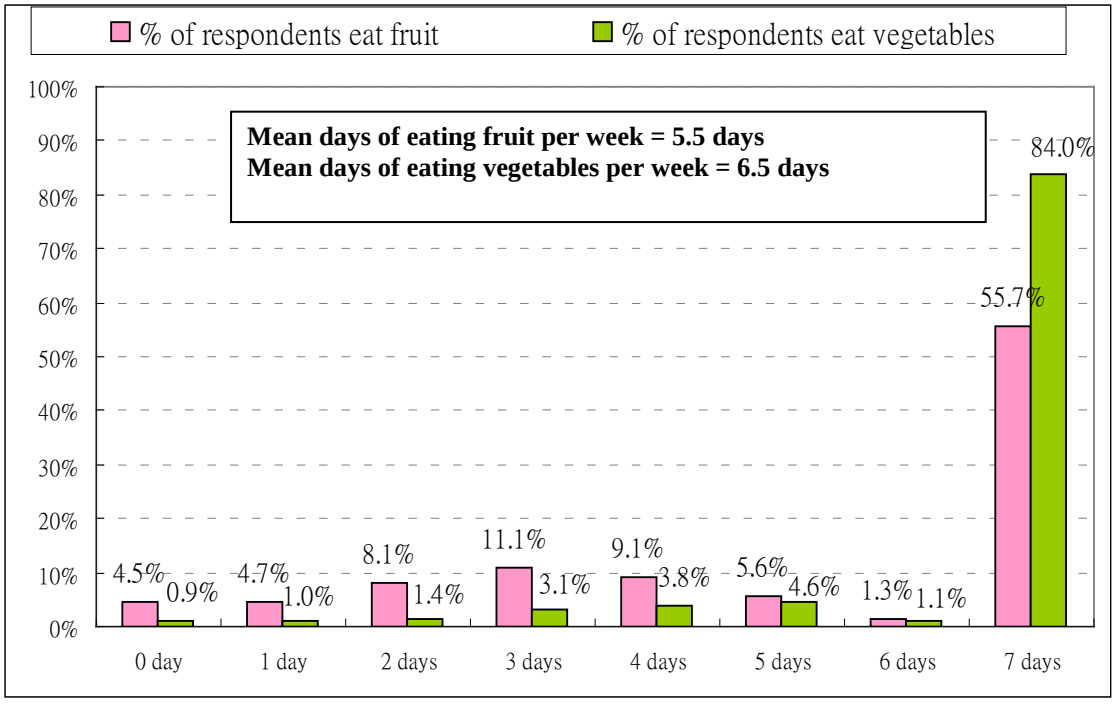
Four questions were asked in this section to gauge respondents' dietary habits with particular reference to the consumption of fruit and vegetables.

3.4.1 Frequency of consuming fruit and vegetables per week

Vegetables appear to be more frequently consumed than fruit. Fig. 3.4.1 shows that 84% of all respondents eat vegetables on a daily basis. However, only slightly over half of all respondents (55.7%) eat fruit on a daily basis (excluding consumption of fruit juice). Further, the proportion of respondents eating no fruit at all during the week (4.5%) was much higher than for vegetables (0.9%).

The overall average of days in the week in which respondents consume vegetables was 6.5 days, which is more than that of consuming fruit (5.5 days).

Fig. 3.4.1: Week average days in which respondents eat fruit and vegetables (Q13a, 14a)



Base: All respondents = 2 088

3.4.2 Amount of fruit and vegetables eaten per day[13]

On a daily basis, 43.1% of all respondents consume less than one portion of fruit and 31.0% eat less than one bowl of vegetables on average. Overall, 1.0 fruit and 1.1 bowls of vegetables are consumed on a daily average (Table 3.4.2).

Table 3.4.2: Daily average amount of fruit/vegetables eaten (Q13a, Q13b, Q14a, Q14b)

No. of fruit/bowl of vegetables	No. of fruit taken a day on average		No. of bowl of vegetables taken a day on average	
	Number	% of Total	Number	% of Total
Less than 1	900	43.1%	647	31.0%
1 - 2	1 097	52.6%	1 358	65.0%
More than 2	90	4.3%	83	4.0%
Total	*2 088**	*100.0%*	*2 088**	*100.0%*
Mean	1.0 fruit		1.1 bowls of vegetables	

**All respondents*

3.4.3 The number of servings of fruit and vegetables eaten per day

The number of servings of fruit and vegetables consumed per day was defined as the sum of the average number of fruit eaten per day and twice the average number of bowl of vegetables eaten per day (i.e. one bowl of vegetables equals to two servings).

The WHO recommends that adults eat at least 5 servings of fruit and vegetables per day. Slightly less than one fifth of respondents (17.7%) eat 5 or more servings of fruit and vegetables per day. The mean and median number of servings was 3.3 and 3.0 respectively (Table 3.4.3).

13 Respondents were informed that a portion of fruit was defined as one fruit equal in size to a medium sized apple or orange, one banana, two apricots or plums, or one bowl of small fruit like grapes or strawberries. A portion of vegetables was defined in terms of a bowl where one bowl refers to the size of a rice bowl. The average number of fruit eaten per day is calculated by: (the average number of days eating fruit per week x the average portion of fruit eaten on those days with fruit intake) / 7. Similarly, the average number of bowls of vegetables eaten per day is calculated by: (the average number of days eating vegetables per week x the average number of bowls of vegetables eaten on those days with vegetables intake) / 7.

Table 3.4.3: Number of servings of fruit and vegetables consumed per day (percentage, mean and median) (Q13a, Q13b, Q14a & Q14b)

No. of servings	No. of servings of fruit and vegetables eaten per day	
	Number	% of Total
Less than 3	938	44.9%
3 - 4.9	779	37.3%
5 or above	370	17.7%
Total	*2 088**	*100.0%*
Mean	3.3 servings	
Median	3.0 servings	

**All respondents*

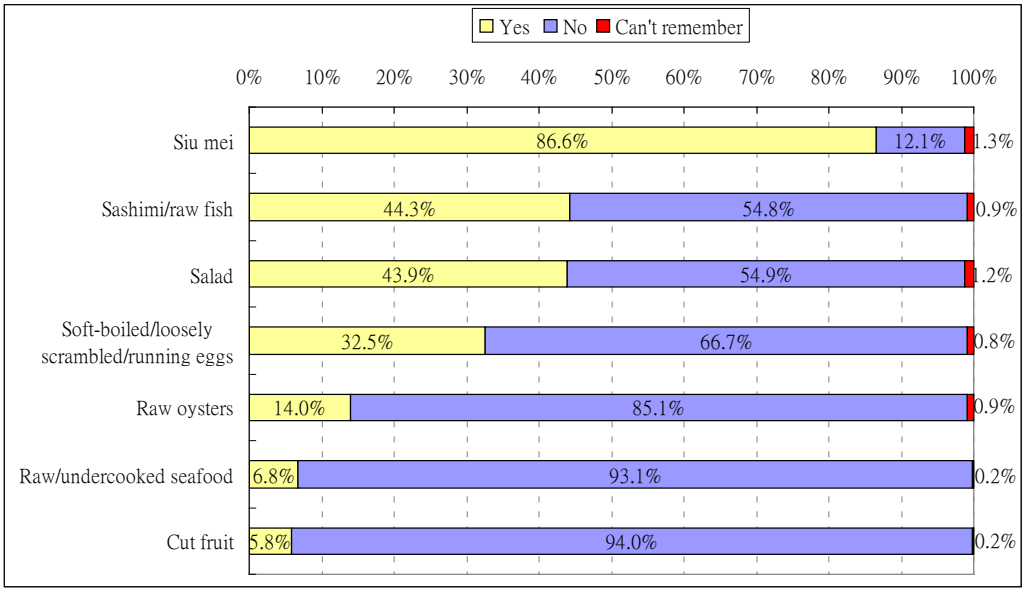
3.5 Consumption behaviour of selected high-risk food

We asked respondents about the frequency of their consumption of each of the seven selected types of high-risk food at home and outside in the past 3 months prior to the survey. The types of high-risk food are raw oysters, raw/undercooked seafood, sashimi/raw fish, soft-boiled/loosely scrambled/running eggs, siu mei, salad and cut fruit prepared by the vendor before sale.

3.5.1 Intake of high-risk food

Most respondents (86.6%) have eaten siu mei in the past 3 months prior to the survey, followed by sashimi/raw fish (44.3%), salad (43.9%), soft-boiled/loosely scrambled/running eggs (32.5%), raw oysters (14.0%), raw/undercooked seafood (6.8%) and cut fruit (5.8%) (Fig. 3.5.1).

Fig. 3.5.1: Proportion of the sample consuming high-risk food in the past 3 months prior to the survey (Q15)

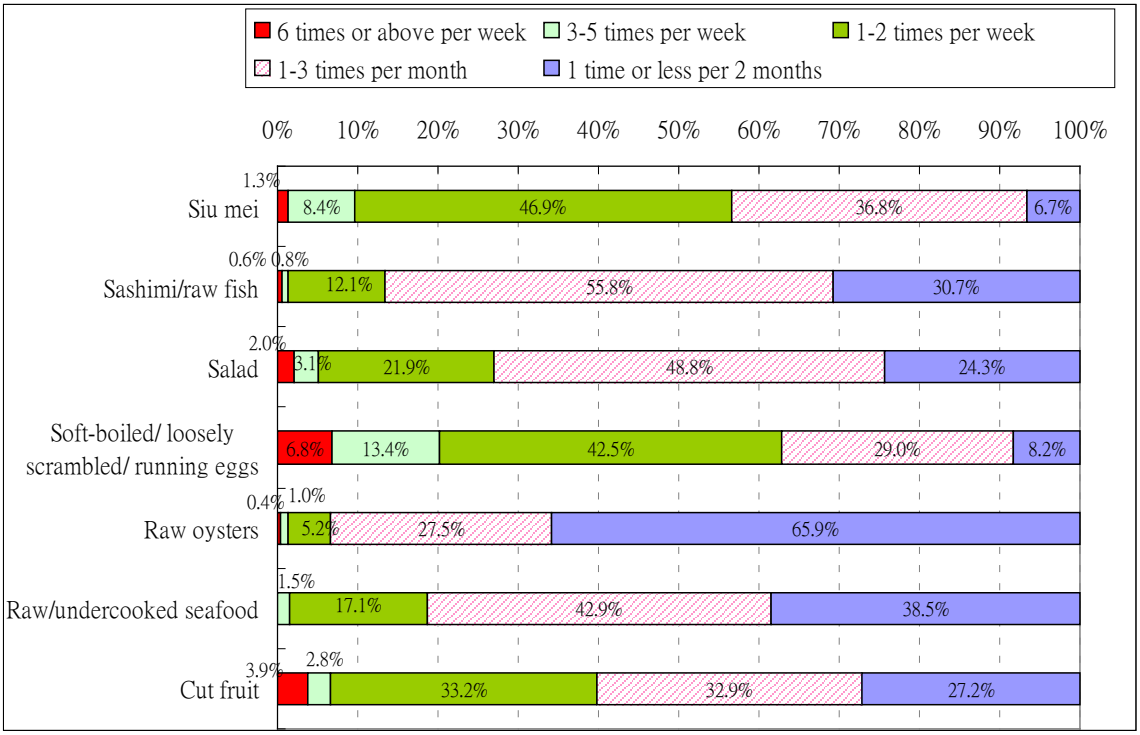


Base: All respondents = 2 088

3.5.2 Frequency of consuming high-risk food

Of those respondents who consumed these selected high-risk food in the past 3 months prior to the survey, the most frequently consumed were under-cooked eggs and siu mei. 62.7% ate soft-boiled/loosely scrambled/running eggs at least once per week and 56.6% ate siu mei at least once per week. Respondents who consumed cut fruit, salad and raw/undercooked seafood at least once per week were 39.9%, 26.9% and 18.6% respectively. Respondents least frequently consumed sashimi/raw fish and raw oysters over the past 3 months prior to the survey. The percentages of respondents who ate these types of food at least once per week were 13.5% and 6.6% respectively (Fig. 3.5.2).

Fig. 3.5.2: Frequency of consuming high-risk food in the past 3 months prior to the survey (Q15)



Base: Respondents who have consumed any of the high-risk food in the past 3 months prior to the survey (Siu mei = 1 808, Sashimi/raw fish = 925, Salad = 918, Soft-boiled/loosely scrambled/running eggs = 679, Raw oysters = 293, Raw/undercooked seafood = 141, Cut fruit = 122)

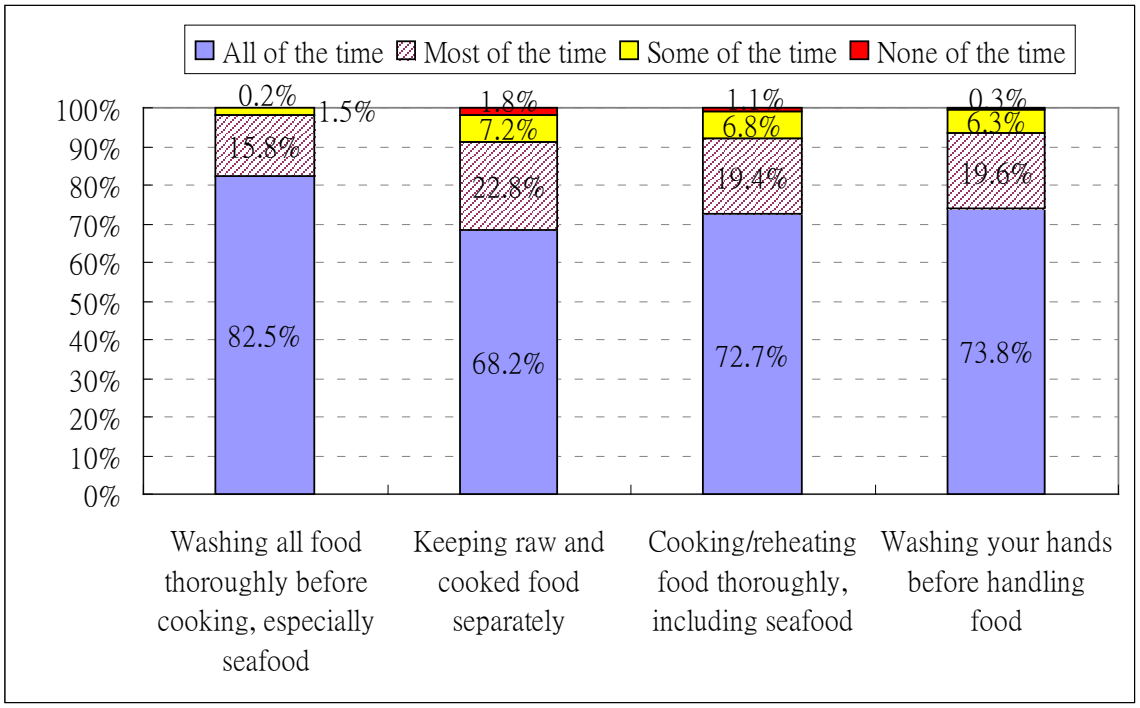
3.6 Food handling practices

Four questions were asked to understand the respondents' food handling practices.

We found that most respondents were able to comply with good food handling practices. In particular, 82.5% of respondents conformed to the practice of 'washing all food thoroughly before cooking, especially seafood' *all of the time*. This practice was followed most frequently out of the four practices respondents were questioned on. The proportions of respondents maintaining the other three practices *all of the time* was 73.8% for 'washing hands before handling food', 72.7% for 'cooking/reheating food thoroughly, including seafood' and 68.2% for 'keeping raw and cooked food separately' (Fig. 3.6).

It is worth noting that a small percentage of respondents never followed the practices of 'keeping raw and cooked food separately' (1.8%) and 'cooking/reheating food thoroughly, especially seafood' (1.1%) (Fig. 3.6).

Fig. 3.6: How often respondents conformed to the following food handling practices (Q16, 17, 18, 19)



Base: All respondents excluding N/A ('washing all food thoroughly before cooking, especially seafood' = 1 840, 'keeping raw and cooked food separately' = 1 899, 'cooking/reheating food thoroughly, including seafood' = 1 947, 'washing your hands before handling food' = 2 002)

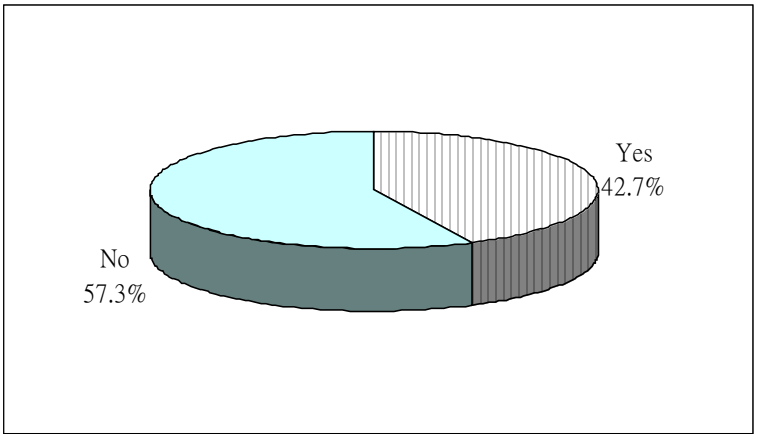
3.7 Pattern of alcohol consumption

Five questions were asked in order to understand respondents' alcohol drinking patterns and to access if their drinking habits were within the safe level defined by the British Alcohol Guidelines.

Two cases had responses for the amount of standard drinks consumed out of the range 0-50 so that they were treated as outliers from the analyses from section 3.7.1 to 3.7.4.

Less than half (42.7%) of respondents consumed at least one alcoholic drink during the previous month prior to the survey (Fig. 3.7).

Fig. 3.7: Consumption of at least one alcoholic drink during the previous month prior to the survey (Q20a)

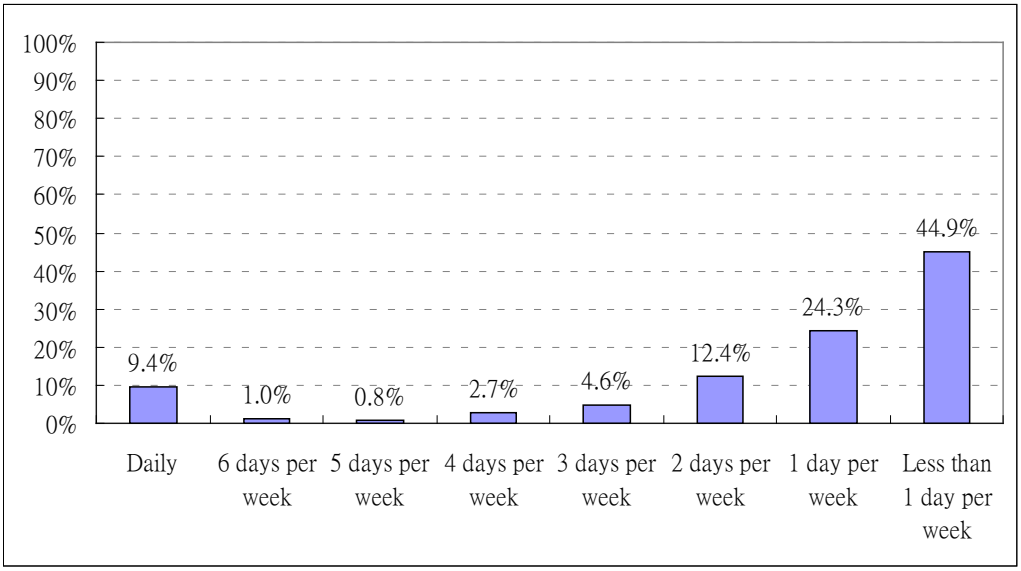


Base: All respondents = 2 088

3.7.1 Frequency of alcohol consumption

Drinkers were asked how many days per week they drank at least one alcoholic drink during the previous month prior to the survey. We found that 55.1% of the drinkers consumed at least one alcoholic drink in each week of the month (Fig. 3.7.1).

Fig.3.7.1: Frequency of consuming at least one alcoholic drink during the previous month prior to the survey (Q20b)



Base: All drinkers excluding outliers = 890

3.7.2 Amount of alcoholic drinks consumed

Drinkers were asked about the amount of alcoholic drinks consumed on average on those days when they drank at least one glass during the previous month prior to the survey. The amount of alcoholic drinks consumed was reported in the unit of 'standard drink'[14].

The average number of standard drinks consumed each day was 2.4. The median was 1.5 standard drinks. Table 3.7.2 also shows that 28.6% of the drinkers drank 3 or more standard drinks on a daily basis.

Table 3.7.2: Average number of standard drinks consumed on the day they drank alcohol (percentage, mean and median) (Q20c)

Standard drinks	No. of standard drinks consumed on the drinking days	
	Number	% of Total
Less than 3	635	71.4%
3 - 4.9	170	19.1%
5 or above	85	9.5%
Total	*890*	*100.0%*
Mean	2.4 standard drinks	
Median	1.5 standard drinks	

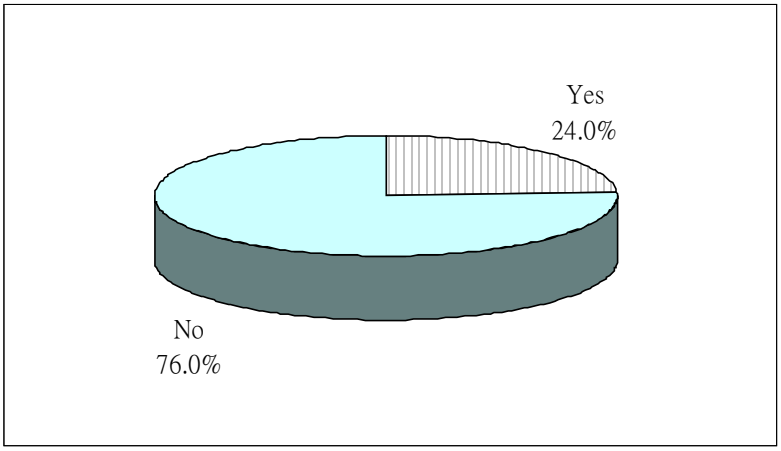
**All drinkers excluding outliers*

14 The amount of drinks consumed was measured by the following standard units: one can or small bottle of beer is approximately equal to 1.5 standard drink, or one standard drink is approximately equal to one dining glass of wine, or one spirit nip of brandy/whisky, or one small glass of Chinese wine such as rice wine.

3.7.3 Drinking at least 5 glasses/cans of alcohol on one occasion

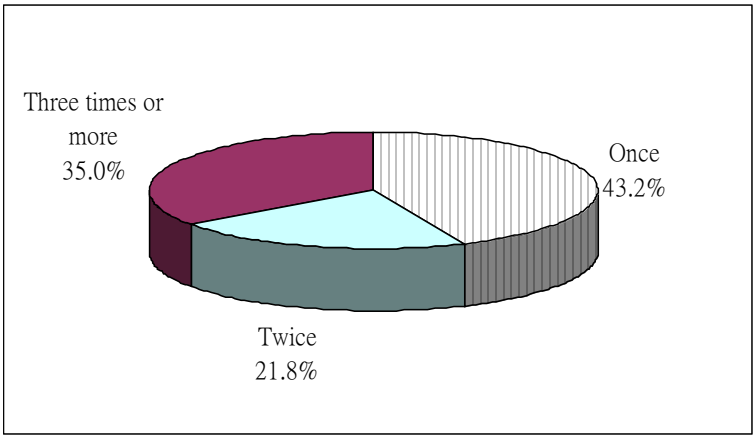
About one-quarter of the drinkers (24.0%) had consumed at least 5 glasses (or cans) of alcohol on one single occasion[15] during the previous month prior to the survey (Fig. 3.7.3a). Of these heavy drinkers, 43.2% had consumed this volume of alcohol once during the month, 21.8% twice and 35.0% more than twice during the month (Fig. 3.7.3b).

Fig. 3.7.3a: Consumption of at least 5 glasses (or cans) of alcohol on one single occasion during the previous month prior to the survey (Q20d)



Base: All drinkers excluding outliers = 890

Fig. 3.7.3b: Frequency of consuming at least 5 glasses (or cans) of alcohol on one single occasion during the previous month prior to the survey (Q20e)



Base: Drinkers who drank at least 5 glasses or cans of alcohol on at least one occasion, excluding outliers = 214

15 Refer to total number of glasses/cans of any types of alcohol. One single occasion means a period of a few hours.

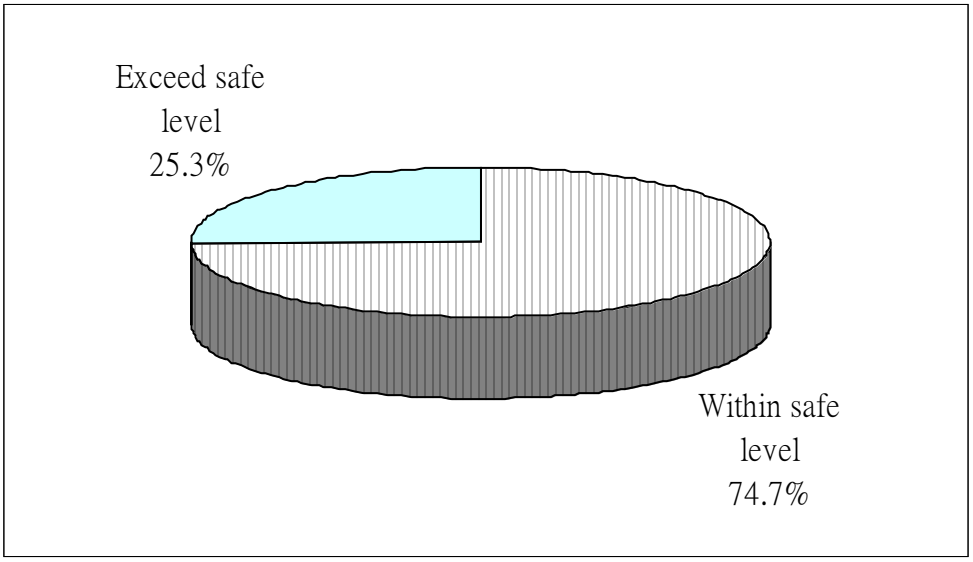
3.7.4 Drinking habits by safe level

According to the classification of safe level of drinking habits in the British Alcohol Guidelines (Table 3.7.4), 74.7% of the drinkers were found within the safe level (Fig. 3.7.4).

Table 3.7.4: Classification of safe level of drinking habit by the British Alcohol Guidelines

Gender	British Alcohol Guidelines – classification of safe level
Male	• No more than 4 standard drinks a day • At least 2 alcohol-free days per week • No more than 21 standard drinks over a week[16]
Female	• No more than 2 standard drinks a day • At least 2 alcohol-free days per week • No more than 14 standard drinks over a week[16]

Fig. 3.7.4: Classification of respondents' drinking habits



Base: All drinkers excluding outliers = 890

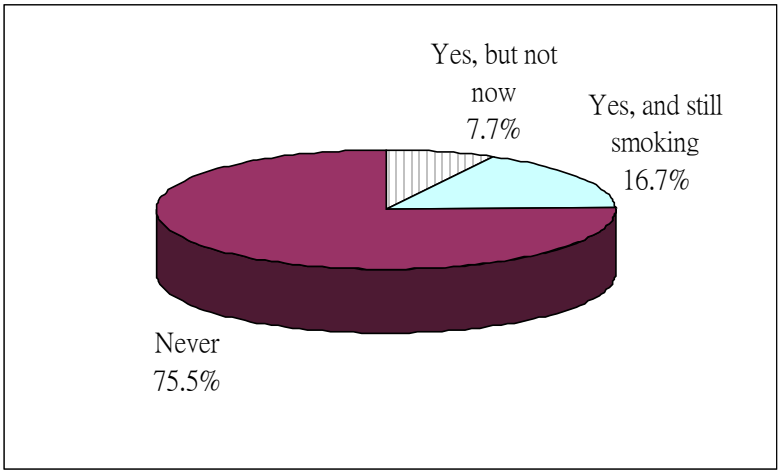
16 The number of standard drinks per week was computed by multiplying 'weekly frequency in which drinkers drank at least one alcoholic drink during last month' (i.e. Q20b) and 'the number of standard drinks consumed each day on those drinking days' (i.e. Q20c). In Q20b, 0.5 day was used for 'less than one day per week'.

3.8 Smoking habits

Three questions were asked to understand respondents' smoking habits.

Three-quarters of respondents (75.5%) surveyed have never smoked, 7.7% smoked in the past but have now abstained and 16.7% of respondents were current smokers (Fig. 3.8).

Fig. 3.8: Breakdown of smoking habits amongst respondents (Q21a)

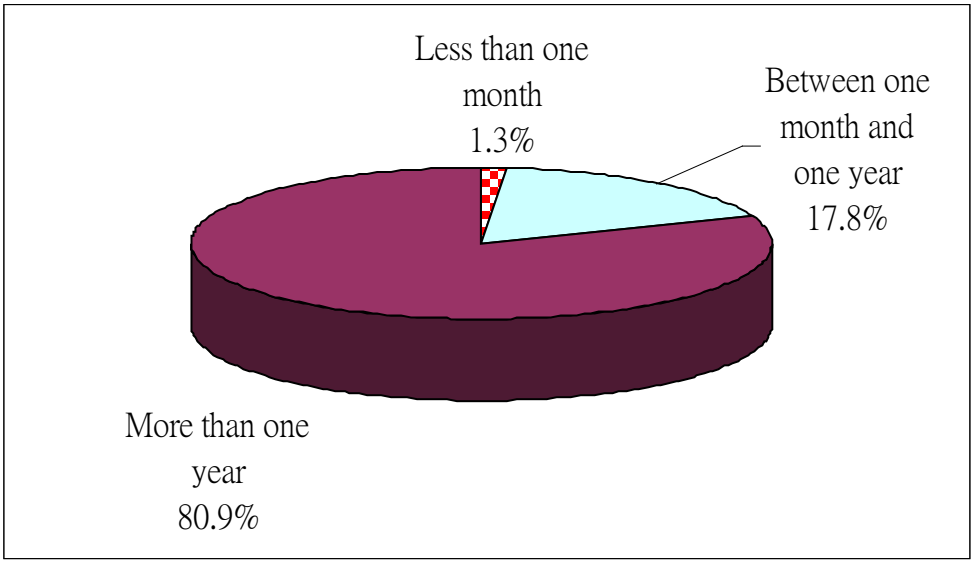


Base: All respondents = 2 088

3.8.1 Abstaining from smoking

Of those who have abstained from smoking, most of them (80.9%) have given up smoking for more than one year. 17.8% abstained between one month to one year ago and 1.3% of past smokers abstained within the month before being interviewed (Fig. 3.8.1).

Fig. 3.8.1: Length of time abstained from smoking (Q21b)

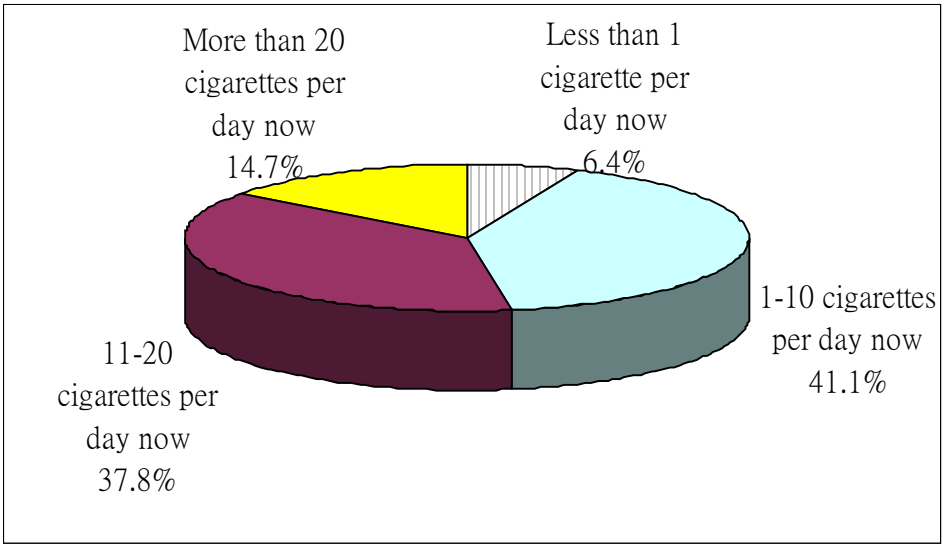


Base: Past smokers = 161

3.8.2 Cigarette consumption

Amongst current smokers, over half of them (52.5%) smoke at least 11 cigarettes or above per day, 41.1% smoke between 1-10 cigarettes while 6.4% smoke less than 1 per day (Fig. 3.8.2).

Fig. 3.8.2: Number of cigarettes smoked on average per day (Q21c)



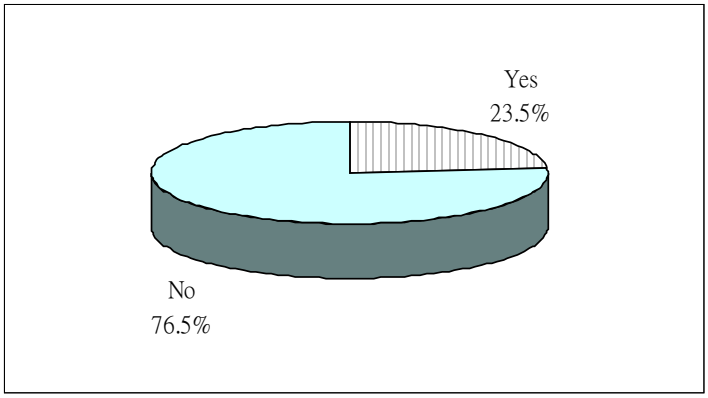
Base: Current smokers = 350

3.9 Pedestrian and driver road safety behaviour

Five questions were asked in this section to investigate the behaviour of pedestrians and drivers on road safety.

Approximately one-quarter of all respondents (23.5%) had driven a vehicle in the past 12 months prior to the survey (Fig. 3.9).

Fig. 3.9: Proportion of respondents having driven a vehicle in the past 12 months prior to the survey (Q22a)

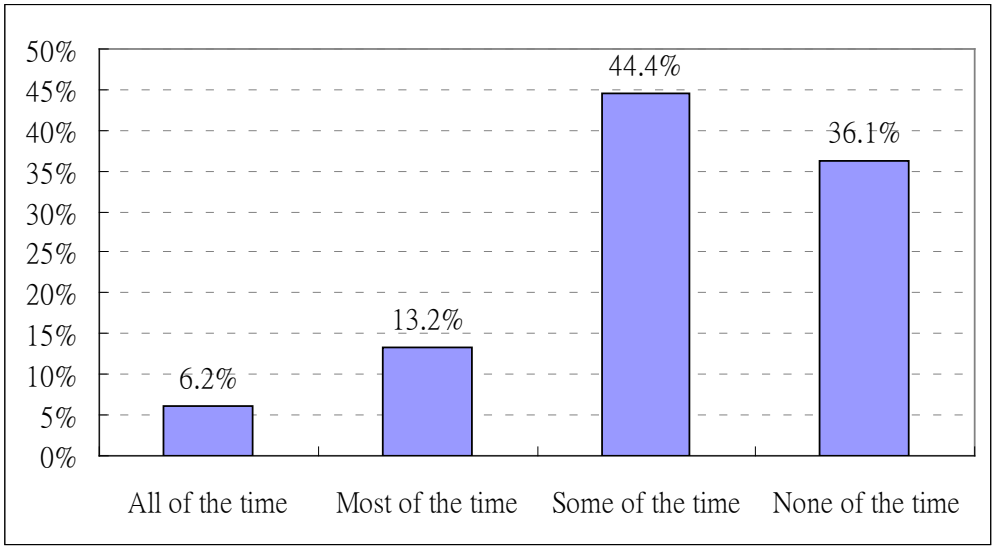


Base: All respondents = 2 088

3.9.1 Breaking speed limit

When the drivers were asked if they have ever broken the speed limit by 15km per hour or more, 6.2 % admitted doing so *all of the time*, 13.2% of drivers *most of the time* and 44.4% *some of the time*. 36.1% of drivers claimed that they never broke the speed limit by more than 15km per hour (Fig. 3.9.1).

Fig. 3.9.1: The extent of the speed limit being exceeded by 15km per hour or above (Q22b)

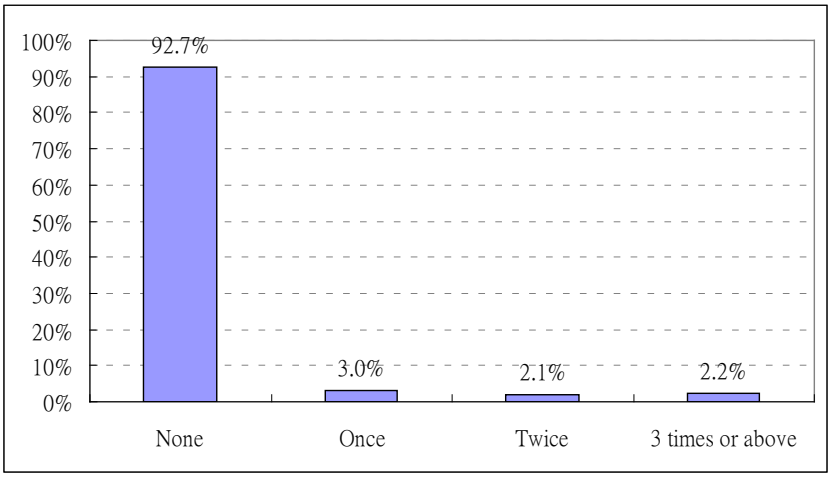


Base: All drivers excluding refusal = 484

3.9.2 Driving after drinking alcohol

We questioned drivers how frequently during the previous month prior to the survey they had consumed alcohol and then within the two hour period after their last drink proceeded to drive a vehicle. The majority (92.7%) did not drive a vehicle in this situation. Three per cent of drivers admitted to driving after their last drink on one occasion, 2.1% on two occasions, and 2.2% on more than two occasions (Fig. 3.9.2).

Fig. 3.9.2: The number of times drivers had driven a vehicle/car within the two hour period after drinking alcohol during the previous month prior to the survey (Q22c)

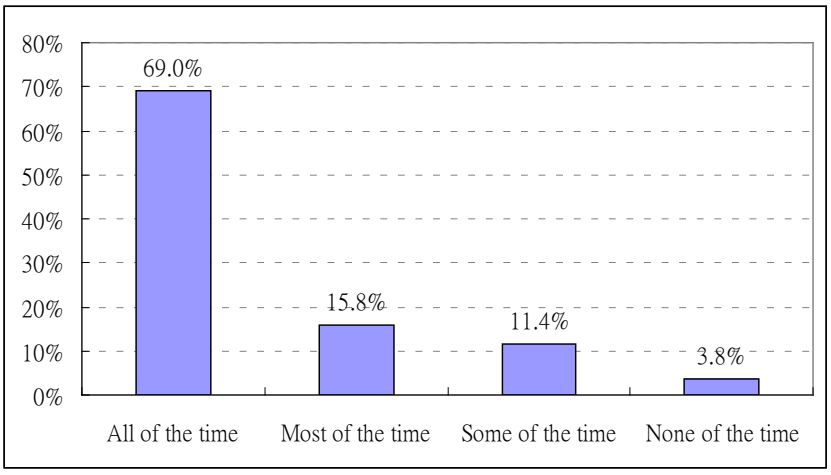


Base: All drivers = 490

3.9.3 Use of seat-belts

In terms of wearing a seat-belt as a passenger at private car, taxi or public mini-bus where it is mandatory and available, only 3.8% of respondents do not use their seat-belts. Respondents claiming to wear their seat belts *all of the time*, *most of the time* and *some of the time* represented 69.0%, 15.8% and 11.4% respectively (Fig. 3.9.3).

Fig. 3.9.3: The extent of compliance with the regulation of 'using seat-belts where it is mandatory and available (Q23)

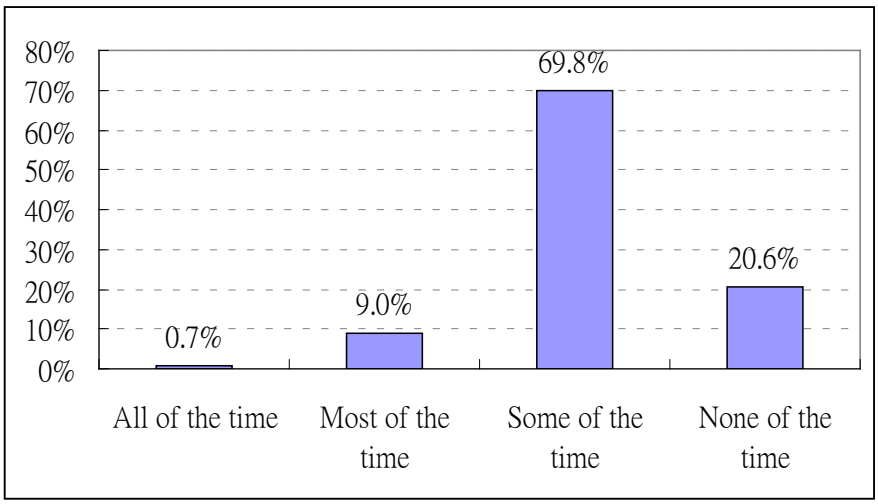


Base: All passengers excluding 'N/A' = 2 031

3.9.4 Compliance with traffic instructions to cross road

About one-fifth of pedestrians (20.6%) never experienced crossing the road by ignoring traffic light instructions, not using zebra-crossing or footbridge when they are available. Only 0.7% of respondents always cross the road illegally while the rest of respondents follow traffic rules at least some of the time whilst crossing the road (Fig. 3.9.4).

Fig. 3.9.4: The extent of ignoring traffic light instructions, not using zebra-crossing or footbridge to cross road (Q24)



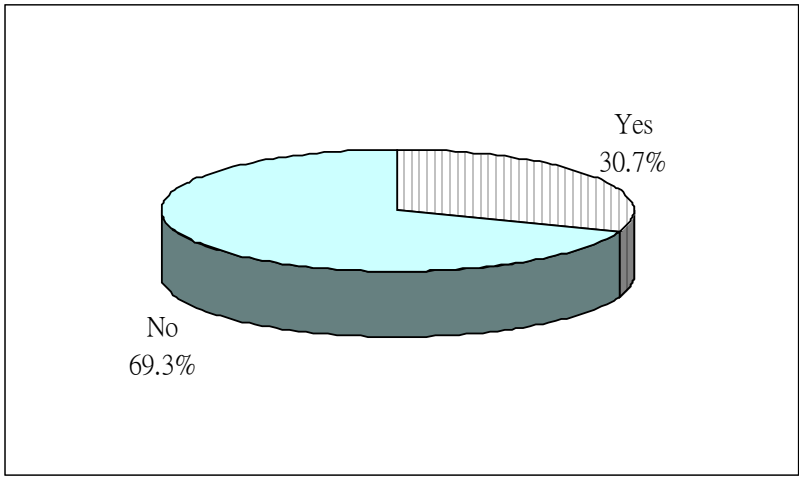
Base: All respondents excluding 'N/A' = 2 083

3.10 Traditional Chinese Medicine Consultation Behaviour

Four questions were asked in this part to understand respondents' consultation behaviour with Traditional Chinese Medicine Practitioners in the past 12 months prior to the survey.

In the past 12 months prior to the survey, 30.7% of all respondents consulted Traditional Chinese Medicine Practitioners (TCMP) such as herbalists, acupuncturists and bone-setters, etc (Fig. 3.10).

Figure 3.10: Respondents consulted Traditional Chinese Medicine Practitioners in the past months prior to the survey (Q25)

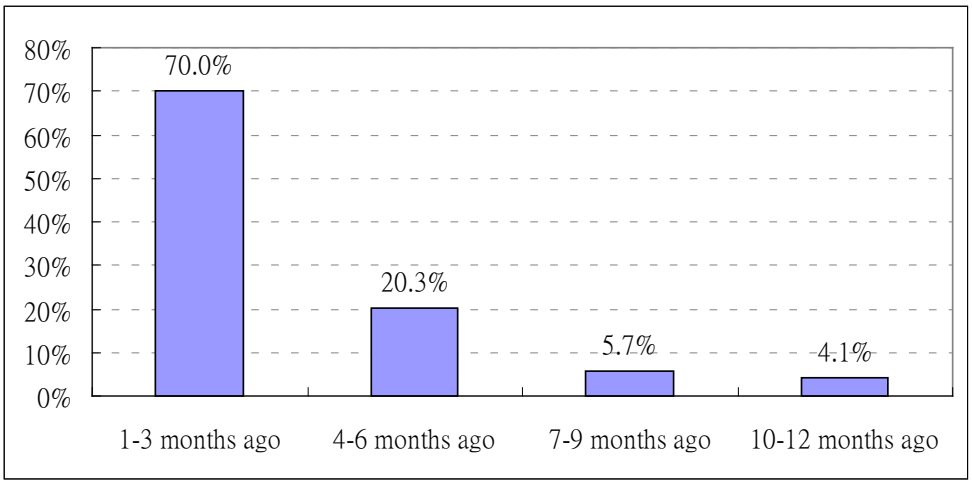


Base: All respondents = 2 088

3.10.1 Last consultation to TCMP

Seventy per cent had their last consultation taken place within the past three months prior to the survey. The majority (90.2%) had their consultation within the past 6 months prior to the survey (Fig. 3.10.1).

Figure 3.10.1: Period of time since last consultation with a TCMP (Q26)

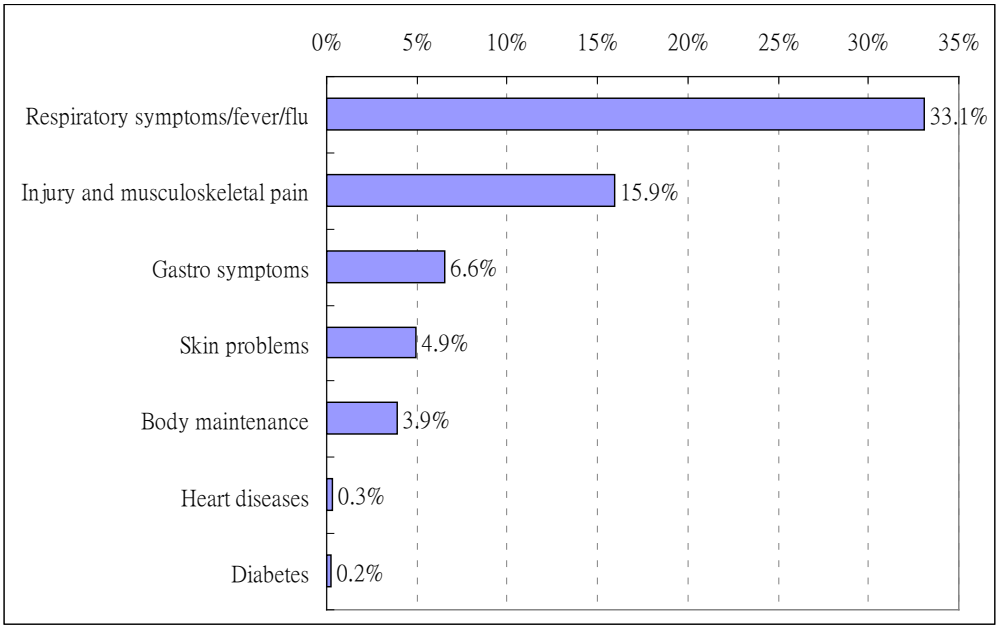


Base: Respondents who consulted a TCMP in the past 12 months prior to the survey = 640

3.10.2 Reason for consulting TCMP

The most commonly mentioned reasons for consulting TCMP during their last visit prior to the survey were respiratory symptoms/fever/flu (33.1%) and injury and musculoskeletal pain (15.9%) (Fig. 3.10.2).

Fig. 3.10.2: Reasons for consulting a TCMP during the last visit prior to the survey (Q28)

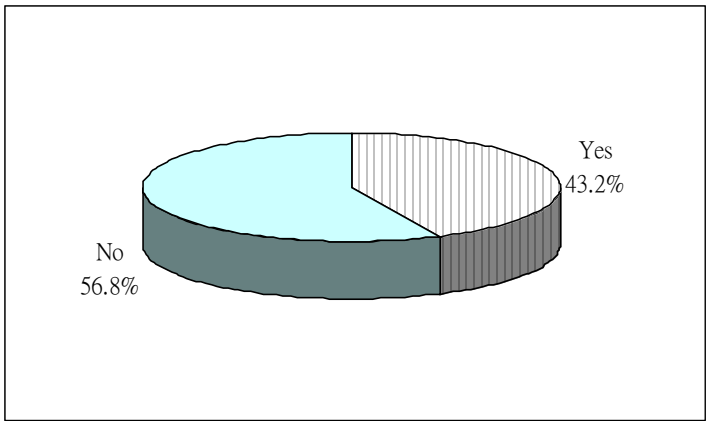


Base: Respondents who consulted a TCMP in the past 12 months prior to the survey = 640

3.10.3 Consulting western doctor before the TCMP

More than half (56.8%) of the respondents who consulted a TCMP during the past 12 months prior to the survey did not consult a western doctor for the problem before consulting the TCMP during the last visit (Fig. 3.10.3).

Figure 3.10.3: Percentage consulting a western doctor before the TCMP during last consultation (27)

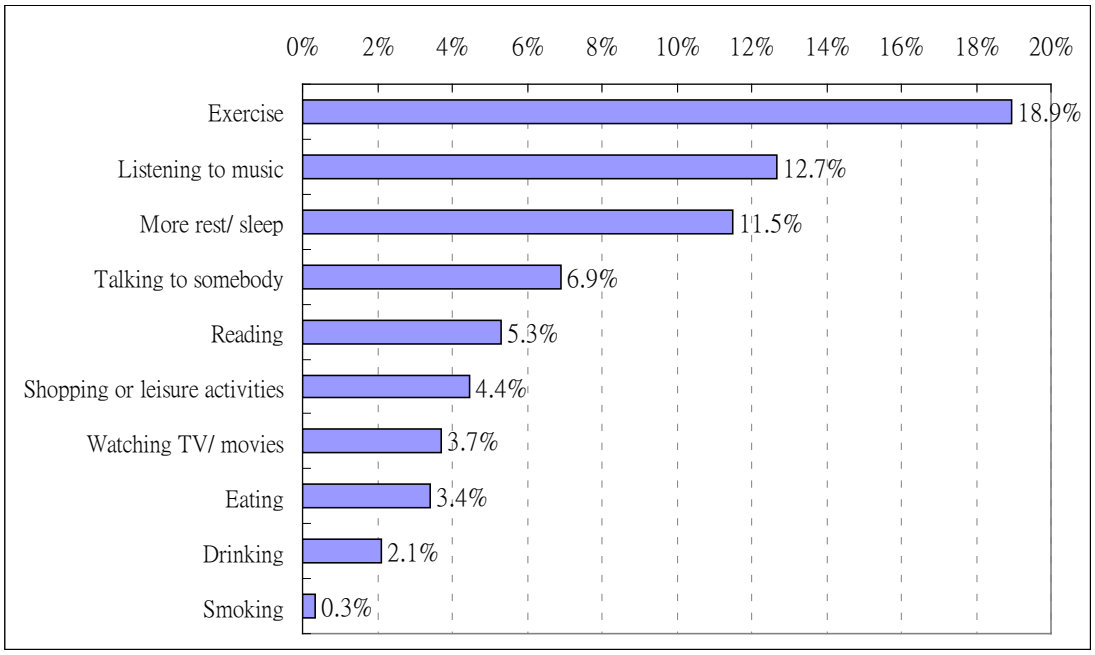


Base: Respondents who consulted a TCMP past 12 months prior to the survey = 640

3.11 Stress Management

Of the 87.9% of respondents who reported having experienced stress, 18.9% use exercise to cope with stress, 12.7% listen to music, and 11.5% take rest or slept. Talking to somebody, reading, shopping or leisure activities, watching TV/movies, eating, drinking, smoking and attending stress management class were also mentioned (Fig. 3.11).

Figure 3.11: Methods respondents used to cope with stress (Q29)



Base: All respondents who have experienced stress = 1 835

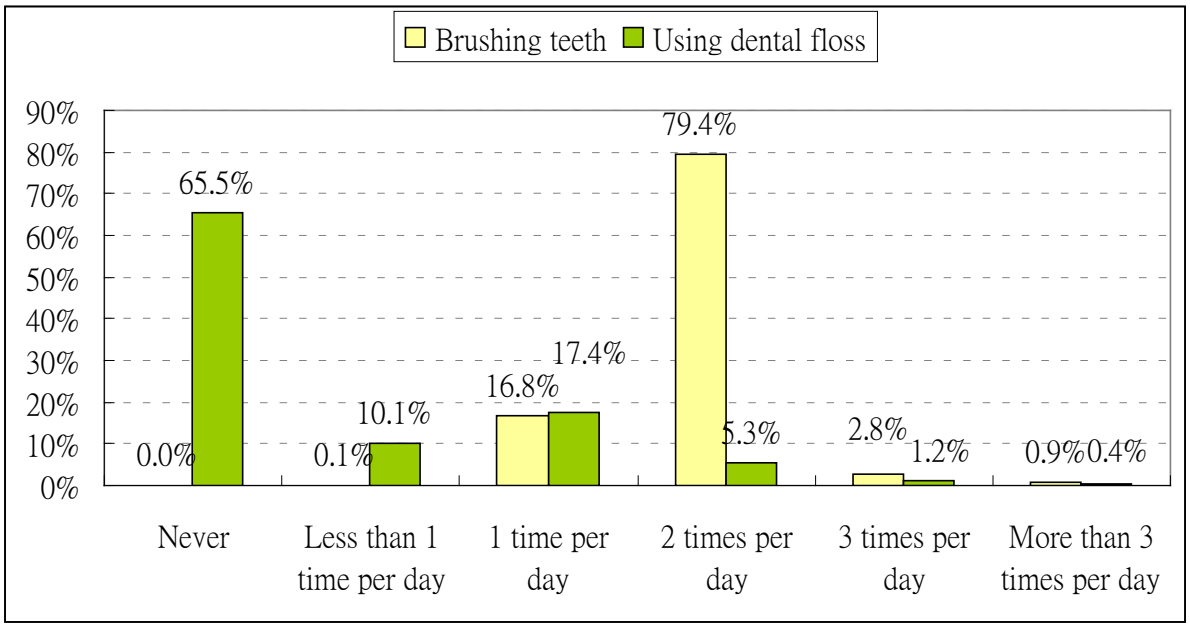
3.12 Oral health practices

Two questions were asked about respondents' practices in brushing teeth and using dental floss.

Brushing teeth twice per day was mentioned by 79.4% of respondents. Another 16.8% of respondents only brush their teeth once a day (Fig. 3.12).

About two-thirds (65.5%) of respondents never used dental floss. 10.1% of respondents do not use it everyday. Only 17.4% of respondents use it once a day. Another 7.0% use it at least twice per day (Fig. 3.12).

Figure 3.12: Frequency of brushing teeth and using dental floss (Q30 & Q31)



Base: All respondents excluding 'can't remember' (Brushing teeth = 2 088, Using dental floss = 2 087)

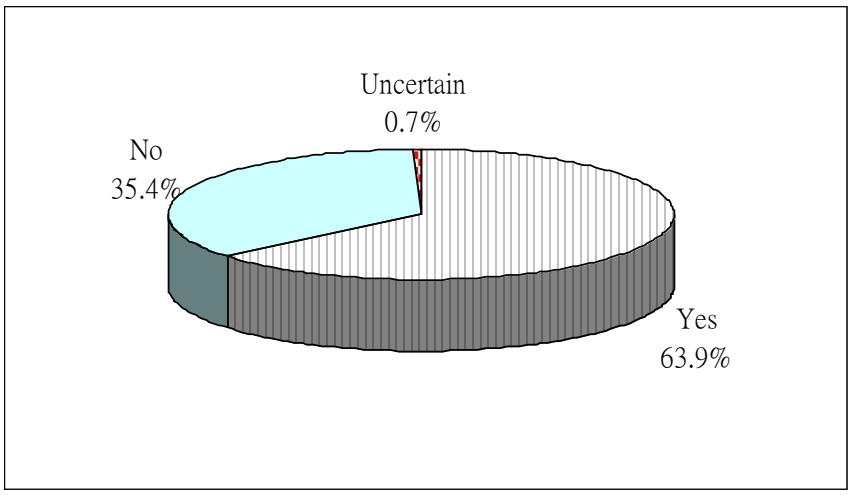
3.13 Cervical screening (female respondents only)

Eight questions were asked to understand female respondents' behaviour of cervical screening.

There were five cases with inconsistent responses for the period of time since last cervical smear and the frequency of regular cervical smear (e.g. some said they had their last cervical screening taken two years ago but claimed to have frequency of screening as regular as more than once a year). These five cases were treated as outliers from section 3.13.1 to 3.13.3.

In this survey 52.5% of respondents were female after weighting. Among them, 63.9% have had a cervical smear before (Fig. 3.13).

Figure 3.13: Being screened for cervical smear before (Q32a)

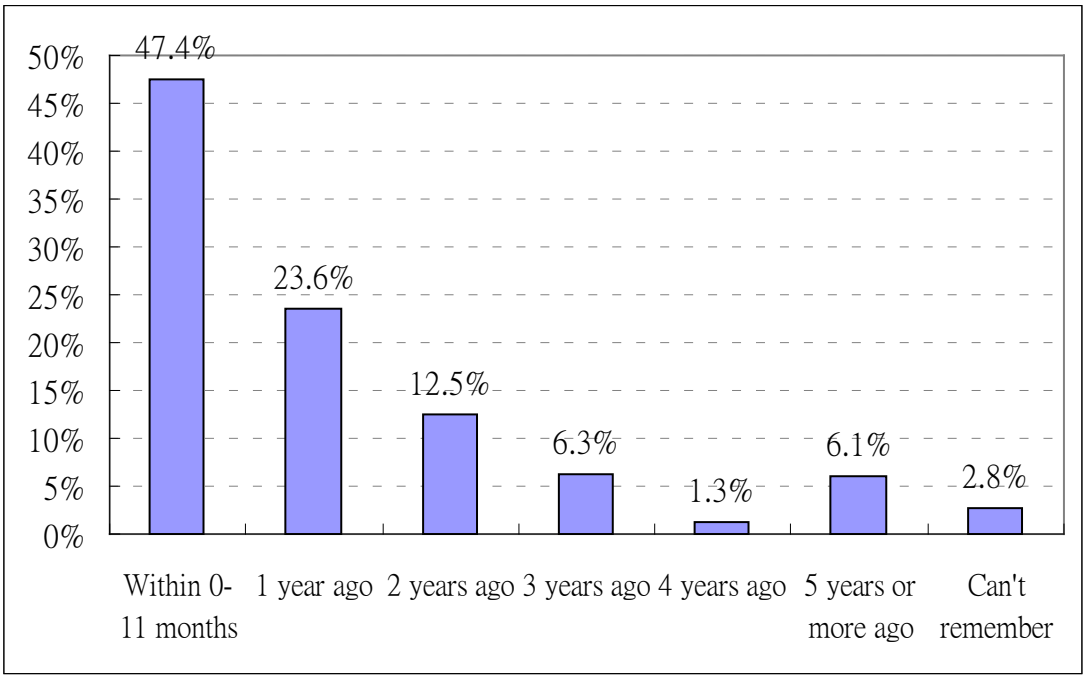


Base: All female respondents =1 095

3.13.1 Last cervical smear

Of the females who had a cervical smear before, almost half of them (47.4%) had it taken within the past year prior to the survey. 23.6% had it one year ago while 12.5% were screened two years ago. 6.3% had it three years ago. 7.4% had it more than 4 years ago (Fig. 3.13.1).

Figure 3.13.1: Period of time since last cervical smear (Q32b)

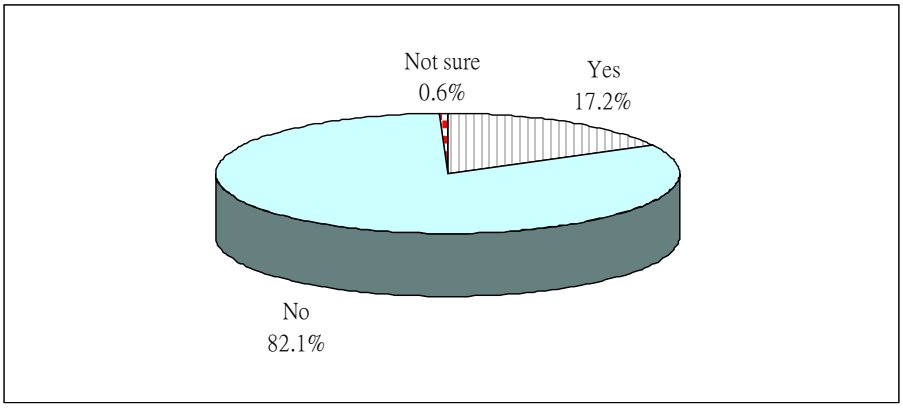


Base: Female respondents who had a cervical smear before, excluding outliers = 695

3.13.2 Number of cervical smear

Of the females who had a cervical smear before, most of them (82.1%) had more than one. Only 17.2% stated that the last visit was their first cervical smear (Fig. 3.13.2).

Figure 3.13.2: Whether the last cervical smear was respondent's first visit (Q32c)

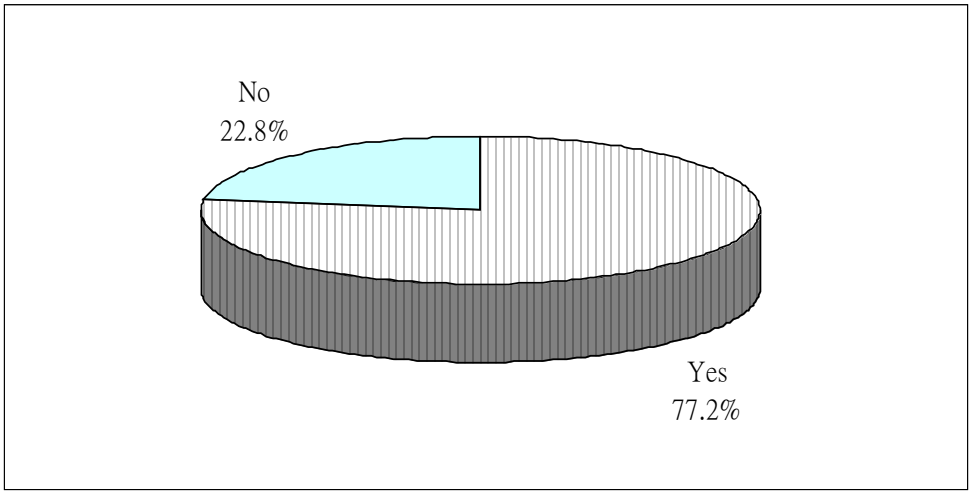


Base: Female respondents who had a cervical smear before, excluding outliers and refusal = 694

3.13.3 Regular cervical screening

Of the female respondents who had more than one cervical smear before, 77.2% of them claimed to have it regularly (Fig. 3.13.3a).

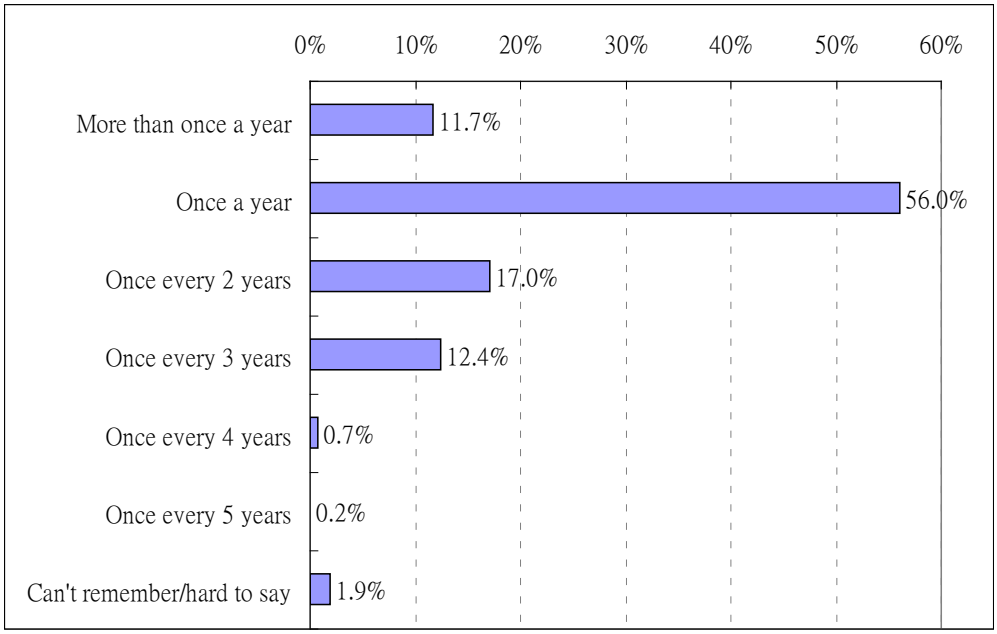
Figure 3.13.3a: Regular cervical screening (Q32d)



Base: Female respondents who had more than one smear before, (including female respondents who were not sure whether their last cervical smear was their first visit) excluding outliers = 575

In terms of frequency of screening, 'once a year' was mentioned by more than half (56.0%) of the female respondents. Another 11.7% have the screening more than once a year. About one-third (30.3%) have it once every two years or longer (Fig. 3.13.3b).

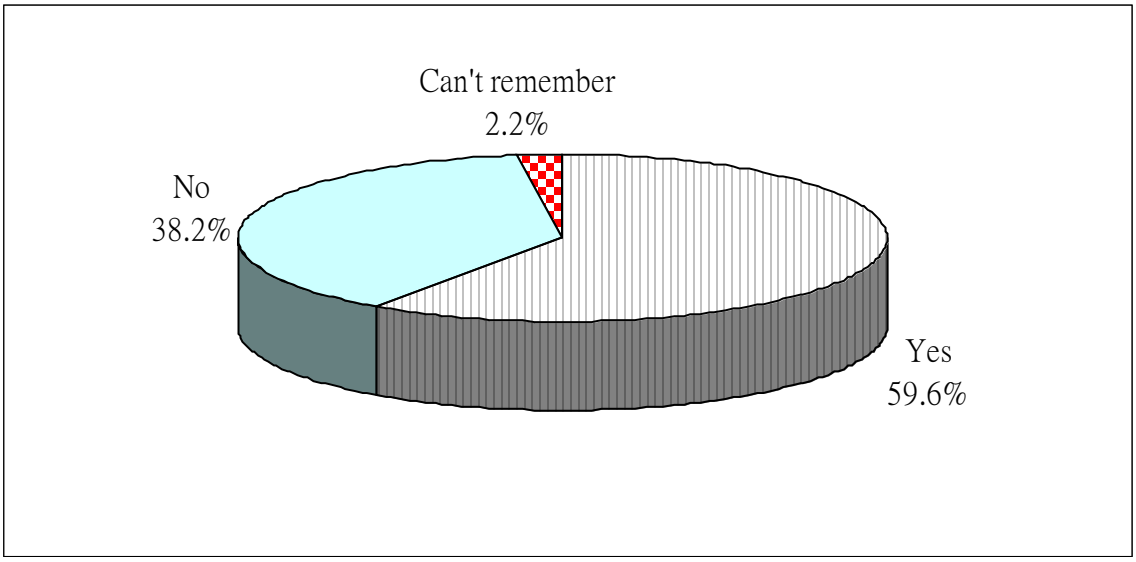
Fig. 3.13.3b: Frequency of cervical screening (Q32e)



Base: Female respondents who have regular cervical screening, excluding refusal and outliers = 444

Of those who do not have regular screening, 59.6% of them said that the longest interval between two cervical smears was more than 3 years apart (Fig. 3.13.3c).

Figure 3.13.3c: Whether the longest interval between two cervical smears was more than 3 years apart (Q32f)

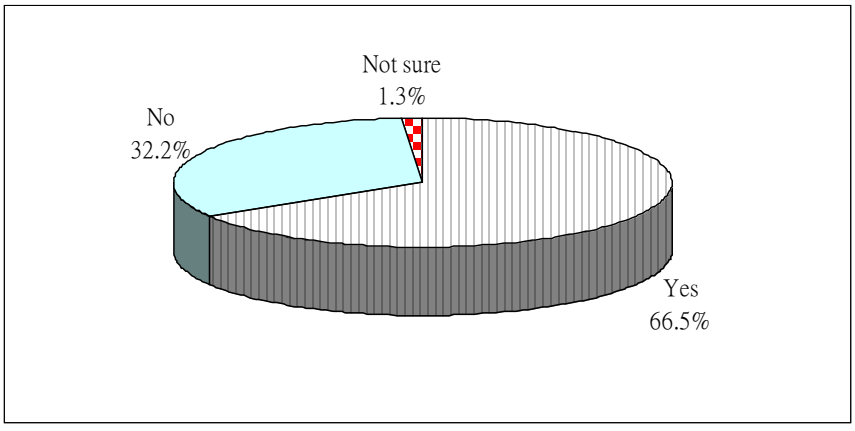


Base: Female respondents who do not have regular cervical screening, excluding outliers = 131

3.13.4 Awareness of the cervical screening programme

Well over half of the female respondents (66.5%) have heard of the cervical screening program organized by the Department of Health (Fig. 3.13.4a).

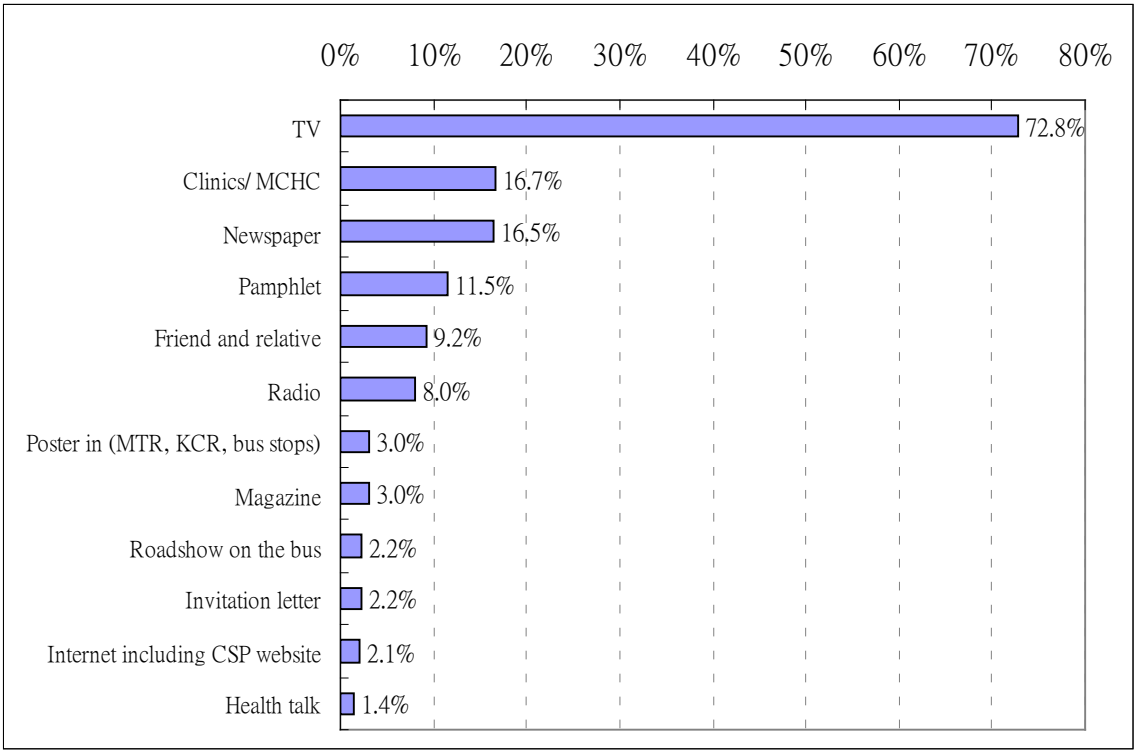
Figure 3.13.4a: Whether female respondents have heard of the cervical screening programme organized by the Department of Health (Q33)



Base: All female respondents = 1 095

TV (72.8%) stands out as the most effective channel through which the female respondents heard of the Cervical Screening Programme organized by the Department of Health. Other less frequently mentioned sources are shown in Fig. 3.13.4b below.

Fig. 3.13.4b: Sources of the Cervical Screening Programme organized by the Department of Health (Q34)



Base: Female respondents who were aware of the program= 728 (multiple responses)

Chapter 4 Sub-group Analyses by Demographic Information and Related Questions

4.1 Re-grouping of variables

In this chapter, sub-group analyses were performed based on the breakdown of respondents' demographic information including gender, age, educational attainment, marital status, occupation, and monthly household income to see if there were any significant associations between these demographic factors and the areas being investigated. Besides, cross tabulations were also done for special areas of interest. For example, Body Mass Index (BMI) was analysed by perceptions about current weight.

Some of the responses have been re-grouped into a smaller number of categories in order to make the sub-group analyses more robust and representative. Table 4.1a shows how the demographic variables have been re-grouped while table 4.1b illustrates how the responses of some questions were combined. The response of 'don't know', 'can't remember', 'not applicable', 'refuse to answer' and 'outliers' have been excluded from all the sub-group analyses in this chapter.

Three types of statistical tests[17] were used in this report, namely Pearson chi-square test, Kruskal-Wallis test and Spearman's rank correlation. When both variables are nominal the chi-square test is used. When one is nominal and the other ordinal the Kruskal-Wallis test is adopted. Spearman's rank correlation is used when both variables are ordinal. Only significant results at the 5% level are presented in this chapter. As for the Pearson chi-square test, only those where no more than 20% of the cells have expected values of less than 5 are included.

All percentages reported were after weighting for gender and age.

17 These statistical tests were based on SPSS application guide. Formulae for the three tests are included for reference.

Pearson chi-square statistics:

$$\lambda^2 = \sum_i \sum_j \frac{(Oij - eij)^2}{eij}$$

Kruskal-Wallis:

$U = N_1 N_2 + \frac{N_1(N_1+1)}{2} - T_1$ where N_1 and N_2 are the sample sizes of the groups and T1 is the sums of the ranks of the combined groups (adjustments are made if there are ties).

Spearman rank correlation coefficient:

$r = \sum_{i=1}^{N} \frac{(X_i - \overline{X})(Y_i - \overline{Y})}{(N-1)SxSy}$ where N is the sample size and Sx and Sy are the standard deviations of the two variables. The rank order of each data value is used in the above formula (adjustments are made if there are ties). Pairwise method is used to handle missing data.

Table 4.1a: Re-grouping the responses of demographic information (Q35-43)

Demographics variable	Original level	Re-grouped level	Sample size (weighted)
Gender	Male	Male	993
	Female	Female	1095
Age group	No grouping	18-24	277
		25-34	468
		35-44	591
		45-54	497
		55-64	256
Educational Attainment	Primary or below	Primary or below	288
	Had not completed secondary	Had not completed secondary	368
	Completed secondary (F5)	Completed secondary (F5)	681
	Matriculation	Matriculation	163
	Tertiary (non-degree)/degree or above	Tertiary or above	587
Marital Status	Never married	Never married	674
	Married with child (ren)	Married	1338
	Married without child(ren)		
	Divorced/Separated	Divorced/Separated/ Widowed	71
	Widowed		
Occupation	Employers/Managers/Administrator	Managerial/professional worker	427
	Professional		
	Associate Professional		
	Clerk	Clerk	310
	Service worker	Service worker	228
	Shop sales worker		
	Skilled agricultural/fishery worker	Blue collar worker	369
	Craft and related worker		
	Plant and machine operator and assembler		
	Unskilled worker		
	Student	Not working	713
	Home-maker		
	Unemployed person		
	Retired person		
	Other not-working person		

Monthly Household Income	Less than $2,000	Below $8,000	171
	$2,000-3,999		
	$4,000-5,999		
	$6,000-7,999		
	$8,000-9,999	$8,000-$13,999	361
	$10,000-11,999		
	$12,000-13,999		
	$14,000-15,999	$14,000 - $19,999	228
	$16,000-17,999		
	$18,000-19,999		
	$20,000-24,999	$20,000-$39,999	540
	$25,000-29,999		
	$30,000-34,999		
	$35,000-39,999		
	$40,000-44,999	$40,000 or above	334
	$45,000-49,999		
	$50,000-54,999		
	$55,000-59,999		
	$60,000 or above		

Table 4.1b: Re-grouping the responses of questions

Question No.	**Question content**	**Original level**	Re-grouped level
Q5b	Length of time engaged in methods to control weight	1-6 days	Less than 1 month
		1-3 weeks	
		1 month	1-3 months
		2-3 months	
		4-5 months	4-9 months
		6-9 months	
		10-12 months	Above 9 months
		13 months or above	
Q6, Q8, Q10	Average days per week spent on vigorous/moderate physical activities/walking	0 day	0-1 day
		1 day	
		2 days	2-3 days
		3 days	
Q13a, Q14a	Average days per week that respondents eat fruit/vegetables	4 days	4-5 days
		5 days	
		6 days	6-7 days
		7 days	
Q15a	Frequency of eating the selected high-risk food	More than 1 time per day	Once or more per week
		1 time per day	
		6 times per week	

		5 times per week	
		4 times per week	
		3 times per week	
		2 times per week	
		1 time per week	
Q15a	Frequency of eating the selected high-risk food	3 times per month	Three times or less per month
		2 times per month	
		1 time per month	
		1 time per 2 months	
		1 time per 3 months	
		No consumption in the past 3 months	None
Q20b	Weekly frequency of drinking at least one alcoholic drink last month	Daily	6 days or more per week
		6 days per week	
		5 days per week	4-5 days per week
		4 days per week	
		3 days per week	2-3 days per week
		2 days per week	
		1 day per week	1 day or less per week
		Less than 1 day per week	
Q30, Q31	Daily frequency of brushing teeth/using dental floss	1 time per day	Once per day
		2 times per day	Twice per day
		3 times per day	3 times or more per day
		More than 3 times per day	
		Less than once per day	Less than once per day or never
		Never	
Q32b	Period of time since last cervical smear	0-11 months ago	0-1 year ago
		1 year ago	
		2 years ago	2-3 years ago
		3 years ago	
		4 years ago	4-5 years or more ago
		5 years or more ago	
Q32e	Frequency of doing cervical smear	More than once a year	Once or more a year
		Once a year	
		Once every 2 years	Once every 2-3 years
		Once every 3 years	
		Once every 4 years	Once every 4-5 years
		Once every 5 years	
		Once every 6-10 years	Once every 6 years or more
		Less frequent than once every 10 years	

4.2 Body weight control

The responses of twelve cases were treated as outliers and were excluded for analyses from section 4.2.1 and 4.2.3. Furthermore, the responses of nine cases were also regarded as outliers for the analyses from section 4.2.4 to 4.2.6. Please refer to section 3.2 for the reasons of treating these responses as outliers.

4.2.1 Weight status

Respondents were classified as '*underweight*', '*normal*', '*overweight*' and '*obese*' based on their BMI score and the WHO classification. These weight statuses were found to be significantly associated with five demographic variables including gender, age, marital status, educational attainment and occupation.

More males (22.7%) were found to be '*overweight*' than females (13.5%) while more females (13.5%) were classified as '*underweight*' than males (6.7%). In terms of age, younger respondents aged 18-24 (34.3%) were more likely to be '*underweight*' than those older groups aged above 35 (ranged from 3.6% to 4.6%). Furthermore, respondents aged 45 or above were most likely to be '*overweight*' (ranged from 23.8% to 25.7%) compared to the age group 18-24 (4.0%) (Table 4.2.1).

The never married respondents (20.3%) were much more likely to be '*underweight*' than the married (5.6%) and the divorced/separated/widowed (4.2%). Married (21.6%) respondents were most likely to be '*overweight*' while the divorced/separated/widowed respondents (83.1%) were mostly found to be '*normal*' (Table 4.2.1).

Respondents with matriculation level of education (18.8%) were more likely to be '*underweight*' than their counterparts. Those with primary school educational level or below were more likely to be '*overweight*' (27.3%) or '*obese*' (6.6%) than better educated respondents (Table 4.2.1).

Managerial/professional workers (21.6%) were more likely to be '*overweight*' while blue collar workers (6.8%) were less likely to be '*underweight*' (Table 4.2.1).

Table 4.2.1: Weight status based on BMI score and the classification of WHO

Variable	Level	Base	Under-weight	Normal	Over-weight	Obese	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	988	6.7%	66.5%	22.7%	4.1%		*0.000*	
	Female	1089	13.5%	69.4%	13.5%	3.6%			
Age	18-24	274	34.3%	59.5%	4.0%	2.2%			*0.000*
	25-34	467	13.5%	70.9%	13.1%	2.6%			
	35-44	588	4.6%	72.1%	19.7%	3.6%			
	45-54	495	3.6%	68.1%	23.8%	4.4%			
	55-64	253	4.3%	62.5%	25.7%	7.5%			

Marital Status	Never married	670	20.3%	65.4%	10.9%	3.4%		*0.000*	
	Married	1331	5.6%	68.6%	21.6%	4.2%			
	Divorced/separated/ widowed	71	4.2%	83.1%	12.7%	0.0%			
Educational Attainment	Primary or below	286	4.2%	61.9%	27.3%	6.6%			*0.000*
	Had not completed secondary	367	7.4%	68.4%	19.3%	4.9%			
	Completed secondary (F5)	677	9.3%	72.1%	15.1%	3.5%			
	Matriculation	160	18.8%	65.0%	14.4%	1.9%			
	Tertiary or above	584	13.9%	67.1%	16.3%	2.7%			
Occupation	Managerial/ professional worker	425	9.4%	66.4%	21.6%	2.6%		*0.020*	
	Clerk	310	11.0%	71.6%	12.9%	4.5%			
	Service worker	226	8.0%	67.7%	20.8%	3.5%			
	Blue collar worker	368	6.8%	69.6%	19.3%	4.3%			
	Not-working	706	12.9%	67.6%	15.6%	4.0%			

4.2.2 Weight difference from one year ago

4.2.2.1 Weight difference of more than 10 pounds

Weight differences of more than 10 pounds when compared with one year ago were found to be associated significantly with age, occupation and monthly household income.

Respondents aged between 25 and 34 (23.0%) were more likely to have such a weight difference than those from other age groups, especially the age group 55-64 (9.1%). The blue collar workers (9.9%) were less likely to have weight differences compared to respondents from other occupations, particularly clerks (19.1%). On the other hand, those with monthly household incomes of $40,000 or above (20.7%) were most likely to have weight differences compared to those from other income groups (Table 4.2.2.1).

Table 4.2.2.1: Weight differed by more than 10 pounds when compared with one year ago (Q2a)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	274	14.6%	85.4%		*0.000*	
	25-34	461	23.0%	77.0%			
	35-44	587	15.8%	84.2%			
	45-54	496	13.7%	86.3%			
	55-64	254	9.1%	90.9%			
Occupation	Managerial/professional worker	428	16.1%	83.9%	*0.009*		

	Clerk	309	19.1%	80.9%			
	Service worker	228	17.1%	82.9%			
	Blue collar worker	362	9.9%	90.1%			
	Not-working	705	17.6%	82.4%			
Household Income	Below $8,000	169	17.2%	82.8%		*0.013*	
	$8,000 - $13,999	360	17.8%	82.2%			
	$14,000 - $19,999	223	13.9%	86.1%			
	$20,000 - $39,999	535	12.5%	87.5%			
	$40,000 or above	334	20.7%	79.3%			

4.2.2.2 Weight gain or loss

Weight gain or loss was found to be significantly associated with gender and occupation.

Of those who claimed to have had a weight difference, more females (64.7%) than males (51.0%) had a weight gain of more than 10 pounds. In terms of occupation, clerks (76.3%) were most likely to have gained weight (Table 4.2.2.2).

Table 4.2.2.2: Weight increased or decreased by more than 10 pounds when compared with last year (Q2b)

Variable	Level	Base	Increase	Decrease	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	143	51.0%	49.0%	*0.013*		
	Female	187	64.7%	35.3%			
Occupation	Managerial/professional worker	69	49.3%	50.7%	*0.019*		
	Clerk	59	76.3%	23.7%			
	Service worker	38	52.6%	47.4%			
	Blue collar worker	36	50.0%	50.0%			
	Not-working	124	59.7%	40.3%			

4.2.3 Perception about current weight status

Perceptions about current weight status were found to have significant associations with gender, age, marital status, educational attainment and occupation.

More females (46.6%) felt '*overweight*' than males (34.0%). Respondents from the age groups 35-44 (45.0%) and 46-54 (47.4%) were more likely to feel '*overweight*' than those from other age groups especially the 18-24 group (21.5%). The never married respondents (29.6%) were less likely to feel '*overweight*' than the married respondents (45.6%) and the divorced/separated/ widowed respondents (49.3%). The lower the educational attainment, the more the respondents felt '*overweight*'. The blue collar workers (32.6%) were least likely to feel '*overweight*' while service workers (49.3%) were most likely to feel that (Table 4.2.3a).

Table 4.2.3a: Perception about current weight (Q3)

Variable	Level	Base	Under -weight	Just right	Over-weight	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	986	12.7%	53.3%	34.0%		*0.000*	
	Female	1089	6.3%	47.0%	46.6%			
Age	18-24	275	22.2%	56.4%	21.5%			*0.000*
	25-34	464	8.2%	51.9%	39.9%			
	35-44	589	6.1%	48.9%	45.0%			
	45-54	494	6.3%	46.4%	47.4%			
	55-64	254	11.4%	49.2%	39.4%			
Marital Status	Never married	669	14.5%	55.9%	29.6%		*0.000*	
	Married	1332	7.0%	47.4%	45.6%			
	Divorced/separated/widowed	71	7.0%	43.7%	49.3%			
Educational Attainment	Primary or below	287	9.4%	44.9%	45.6%			*0.000*
	Had not completed secondary	365	9.0%	46.8%	44.1%			
	Completed secondary (F5)	678	7.5%	49.9%	42.6%			
	Matriculation	162	13.0%	49.4%	37.7%			
	Tertiary or above	584	10.8%	54.8%	34.4%			
Occupation	Managerial/professional worker	425	7.5%	51.5%	40.9%		*0.003*	
	Clerk	307	5.9%	51.8%	42.3%			
	Service worker	227	7.9%	42.7%	49.3%			
	Blue collar worker	368	11.1%	56.3%	32.6%			
	Not-working	709	11.0%	47.2%	41.7%			

We analysed respondents' perceptions about their current weight by their weight status based on the WHO classification. Significant association was found between these two variables.

Many respondents were not likely to perceive their weight status correctly. Of those who perceived themselves as being '*overweight*', over half of them (57.3%) were classified as '*normal*'. Amongst the respondents feeling '*underweight*', 59.6% of them were '*normal*' (table 4.2.3b).

Comparatively speaking, those who perceived themselves as '*underweight*' (38.3%) were more likely than those feeling '*overweight*' (1.1%) and '*just right*' (12.2%) to be classified as '*underweight*' by the WHO criteria. Similarly, those feeling '*overweight*' (35.1%) were also more likely than those perceived themselves as '*just right*' (7.2%) and '*underweight*' (0.5%) to be classified as '*overweight*' (table 4.2.3b).

Table 4.2.3b: Perception about current weight status analysed by weight status based on WHO classification

Variable	Level	Base	Underweight	Normal	Overweight	Obese	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Perception of current weight	Overweight	841	1.1%	57.3%	35.1%	6.5%			*0.000*
	Just right	1030	12.2%	78.4%	7.2%	2.1%			
	Underweight	193	38.3%	59.6%	0.5%	1.6%			

4.2.4 Weight control

Statistically significant associations were found between respondents' behaviour in controlling weight deliberately over the last 12 months and their gender, age, educational attainment, occupation, and monthly household income.

More females (30.0%) than males (25.0%) tried to control their weight deliberately during the past 12 months. Respondents aged between 25 and 44 (31.8% for 25-34 and 31.0% for 35-44) were also more likely to control their weight than respondents from other age groups. Respondents who had educational level of F5 or higher also tended to control their weight more than those with lower educational attainment. Clerks (36.0%) and managerial/professional workers (32.2%) were more likely to control their weight than respondents from other occupations including service workers (26.3%), blue collar workers (20.7%) and those not working (25.4%). Respondents with monthly household income of $40,000 or above (38.1%) were most likely to control their weight compared to those from other household income groups (Table 4.2.4a).

Table 4.2.4a: Controlling weight deliberately in previous 12 months (Q4a)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	987	25.0%	75.0%	*0.011*		
	Female	1092	30.0%	70.0%			
Age	18-24	275	21.1%	78.9%		*0.001*	
	25-34	465	31.8%	68.2%			
	35-44	588	31.0%	69.0%			
	45-54	495	25.5%	74.5%			
	55-64	254	23.6%	76.4%			
Educational Attainment	Primary school or below	289	23.2%	76.8%		*0.003*	
	Had not completed secondary	364	21.7%	78.3%			
	Completed secondary (F5)	678	31.0%	69.0%			
	Matriculation	163	26.4%	73.6%			
	Tertiary or above	585	30.1%	69.9%			

Occupation	Managerial/professional worker	426	32.2%	67.8%	*0.000*		
	Clerk	308	36.0%	64.0%			
	Service worker	228	26.3%	73.7%			
	Blue collar worker	368	20.7%	79.3%			
	Not-working	710	25.4%	74.6%			
Monthly Household Income	Below $8,000	170	22.4%	77.6%		*0.000*	
	$8,000 - $13,999	360	22.2%	77.8%			
	$14,000 - $19,999	227	33.5%	66.5%			
	$20,000 - $39,999	539	29.3%	70.7%			
	$40,000 or above	333	38.1%	61.9%			

The weight status classification by WHO was found to be significantly associated with respondents' behaviour in controlling weight.

Respondents who were classified as obese (38.8%) and overweight (36.2%) were more likely than the normal (27.0%) and underweight (12.8%) respondents to have done something in the past 12 months to control their weight deliberately.

Table 4.2.4b: Controlling weight deliberately in previous 12 months analysed by weight status (Q4a)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Weight status by WHO classification	Underweight	211	12.8%	87.2%		*0.000*	
	Normal	1406	27.0%	73.0%			
	Overweight	370	36.2%	63.8%			
	Obese	80	38.8%	61.3%			

4.2.5 Reason for controlling weight

The reason for controlling weight intentionally over last 12 months was found to be associated significantly with gender and marital status.

Of the respondents who had done something deliberately to control their weight, females (64.5%) were more likely to be intended to lose weight than males (59.8%). The divorced/separated/widowed group (65.2%) were more likely to be aiming to lose weight than the never married (63.3%) and the married (62.0%) groups (Table 4.2.5).

Table 4.2.5: Purpose of controlling weight (Q4b)

Variable	Level	Base	Losing weight	Increasing weight	Maintaining weight	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	246	59.8%	6.9%	33.3%	*0.031*		
	Female	327	64.5%	2.4%	33.0%			
Marital Status	Never married	169	63.3%	8.9%	27.8%	*0.009*		
	Married	379	62.0%	2.6%	35.4%			
	Divorced/separated/ widowed	23	65.2%	0.0%	34.8%			

4.2.6 Methods adopted to control weight

4.2.6.1 Physical exercise

Using physical exercise to control weight was significantly associated with gender and educational attainment.

Of those who had engaged in physical exercise for weight control, males (89.1%) tended to use this method more than females (74.4%). The proportion of respondents in using this method also increases with their level of education. 72.7% of the respondents with primary school education or below used this method compared to 89.2% of those with tertiary education or above to do so (Table 4.2.6.1a).

Table 4.2.6.1a: Doing physical exercise to control weight (Q5a4)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	247	89.1%	10.9%	*0.000*		
	Female	328	74.4%	25.6%			
Educational Attainment	Primary school or below	66	72.7%	27.3%		*0.010*	
	Had not completed secondary	79	77.2%	22.8%			
	Completed secondary (F5)	211	77.3%	22.7%			
	Matriculation	42	81.0%	19.0%			
	Tertiary or above	176	89.2%	10.8%			

The length of time doing physical exercise was also associated with age. Older respondents tended to have engaged in this method longer than younger respondents. Respondents aged 45 or above were more likely than those aged below 45 to have been doing physical exercise for more than 9 months (75.7% for age group 45-54 and 84.4% for 55-64) (Table 4.2.6.1b).

Table 4.2.6.1b: Length of time engaged in doing exercise (Q5b4)

Variable	Level	Base	Less than 1 month	1-3 months	4-9 months	Above 9 months	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	44	4.5%	29.5%	13.6%	52.3%			*0.000*
	25-34	124	4.0%	31.5%	21.0%	43.5%			
	35-44	148	7.4%	19.6%	23.6%	49.3%			
	45-54	103	1.9%	6.8%	15.5%	75.7%			
	55-64	45	2.2%	2.2%	11.1%	84.4%			

4.2.6.2 Taking drugs/products

Gender, marital status, educational attainment and occupation were all found to be associated significantly with the weight control method of taking drugs/products. The frequency of using this method was also significantly associated with age and marital status.

Of those respondents who engaged in taking drugs/products to control weight, females (23.5%) were engaged in this method in much greater numbers than males (8.1%). Taking drugs/products was also adopted more by the divorced/separated/widowed group (37.5%) than by the never married group (17.1%) and the married group (15.8%). On the other hand, respondents with education attained up to F5 (22.3%) were most likely to use this method. Clerks (25.2%) were also most likely to do this while blue collar workers (7.9%) were least likely (Table 4.2.6.2a).

Table 4.2.6.2a: Taking drugs/products to control weight (Q5a1)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	247	8.1%	91.9%	*0.000*		
	Female	328	23.5%	76.5%			
Marital Status	Never married	170	17.1%	82.9%	*0.023*		
	Married	380	15.8%	84.2%			
	Divorced/separated/widowed	24	37.5%	62.5%			
Educational Attainment	Primary school or below	67	9.0%	91.0%		*0.045*	
	Had not completed secondary	79	19.0%	81.0%			
	Completed secondary (F5)	211	22.3%	77.7%			
	Matriculation	43	9.3%	90.7%			
	Tertiary or above	176	14.8%	85.2%			
Occupation	Managerial/professional worker	137	15.3%	84.7%	*0.035*		
	Clerk	111	25.2%	74.8%			
	Service worker	60	20.0%	80.0%			
	Blue collar worker	76	7.9%	92.1%			
	Not-working	180	16.7%	83.3%			

In terms of length of time in using this method, respondents aged 55-64 were most likely to have used it for above 9 months (60.0%) while those aged 18-24 were least likely (9.1%). The divorced/separated/widowed and the married respondents were also more likely to do so than the never married (Table 4.2.6.2b).

Table 4.2.6.2b: Length of time engaged in taking drugs/products (Q5b1)

Variable	Level	Base	Less than 1 month	1-3 months	4-9 months	Above 9 months	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	11	18.2%	63.6%	9.1%	9.1%			*0.016*
	25-34	33	6.1%	57.6%	18.2%	18.2%			
	35-44	30	10.0%	40.0%	30.0%	20.0%			
	45-54	16	6.3%	37.5%	31.3%	25.0%			
	55-64	5	20.0%	0.0%	20.0%	60.0%			
Marital Status	Never married	29	13.8%	65.5%	10.3%	10.3%		*0.030*	
	Married	59	6.8%	37.3%	30.5%	25.4%			
	Divorced/separated/widowed	8	12.5%	37.5%	12.5%	37.5%			

4.3 Physical exercise/activities

4.3.1 Vigorous physical activities/exercise

Significant associations were found between respondents' habits in doing vigorous physical activities in the past week prior to the survey and demographic variables including gender, age, marital status, educational attainment and occupation.

Females engaged in vigorous physical activities less often than males. Most females (82.8%) spent one day or less doing vigorous exercise per week compared to 68.9% of males. However, more males (17.1%) spent 2 to 3 days on such exercise than did females (8.9%) (Table 4.3.1).

The older they were, the less that respondents engaged in vigorous physical activities. 82.8% of the respondents aged 55-64 spent one day or less compared to 65.7% of those aged 18-24. In contrast, younger respondents (23.1% for the age group 18-24) were more likely than older ones to spend 2-3 days a week (4.3% for the age group 55-64) (Table 4.3.1).

The married and the divorced/separated/widowed respondents engaged in such exercise less often than the never married. 69.9% of the never married respondents spent one day or less compared to 79.5% of the married respondents and 75.0% of the divorced/separated/widowed (Table 4.3.1).

Matriculation educated respondents (24.8%) were more likely to spend 2-3 days on vigorous exercise than their counterparts (Table 4.3.1).

Clerks tended to do vigorous exercise less often than respondents from other occupations especially blue collar workers. Most clerks (81.3%) spent one day or less while only 69.6% of blue collar workers spent that time (Table 4.3.1).

Table 4.3.1: Number of days per week spent on doing vigorous physical activities in the past week prior to the survey (Q6)

Variable	Level	Base	0-1 day	2-3 days	4-5 days	6-7 days	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	68.9%	17.1%	4.8%	9.2%		*0.000*	
	Female	1096	82.8%	8.9%	3.5%	4.8%			
Age	18-24	277	65.7%	23.1%	6.9%	4.3%			*0.000*
	25-34	469	76.1%	14.5%	4.5%	4.9%			
	35-44	591	76.5%	13.4%	3.4%	6.8%			
	45-54	496	78.6%	8.9%	4.0%	8.5%			
	55-64	256	82.8%	4.3%	2.3%	10.5%			

Marital Status	Never married	674	69.9%	19.3%	5.2%	5.6%		*0.000*	
	Married	1337	79.5%	9.6%	3.4%	7.5%			
	Divorced/separated/widowed	72	75.0%	11.1%	5.6%	8.3%			
Educational Attainment	Primary school or below	288	83.3%	4.9%	2.8%	9.0%			*0.004*
	Had not completed secondary	367	79.6%	8.2%	2.5%	9.8%			
	Completed secondary (F5)	681	75.3%	12.3%	4.7%	7.6%			
	Matriculation	161	67.1%	24.8%	5.6%	2.5%			
	Tertiary or above	587	74.4%	16.9%	4.4%	4.3%			
Occupation	Managerial/professional worker	427	74.0%	15.9%	4.4%	5.6%		*0.002*	
	Clerk	310	81.3%	12.3%	2.9%	3.5%			
	Service worker	227	75.3%	12.3%	5.3%	7.0%			
	Blue collar worker	369	69.6%	11.4%	4.3%	14.6%			
	Not-working	713	78.7%	12.1%	4.1%	5.2%			

4.3.2 Moderate physical activities/exercise

Frequency of doing moderate physical activities in the past week prior to the survey was associated significantly with age, educational attainment, occupation and monthly household income.

Older respondents (19.6% for the age group 55-64 and 18.1% for the age group 45-54) were more likely to engage in moderate physical activities for 6-7 days a week than younger respondents (12.3% for age group 18-24, 11.8% for 25-34 and 13.7% for 35-44) (Table 4.3.2).

The percentage of respondents who spent 6-7 days increases as the level of education decreases. Only 9.9% of the tertiary educated or above respondents had such a high frequency for moderate exercise compared to 20.1% of the respondents with primary school education or below (Table 4.3.2).

Clerks were found to engage in moderate exercise least often, 73.6% of them spent only one day or less a week. Services workers (17.5%), blue collar workers (19.2%) and those not working (17.8%) were more likely than managerial/professional workers (9.6%) and clerks (8.0%) to spend 6-7 days a week on moderate exercise (Table 4.3.2).

Respondents with monthly household incomes below $8,000 (20.6%) and those between $14,000 and $19,999 (19.3%) were more likely to engage in moderate exercise as frequently as 6-7days a week than their counterparts (Table 4.3.2).

Table 4.3.2: Number of days spent on doing moderate physical activities in the past week prior to the survey (Q8)

Variable	Level	Base	0-1 day	2-3 days	4-5 days	6-7 days	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	276	68.1%	15.6%	4.0%	12.3%			*0.044*
	25-34	468	65.2%	19.0%	4.1%	11.8%			
	35-44	591	64.5%	15.2%	6.6%	13.7%			
	45-54	496	63.5%	13.3%	5.0%	18.1%			
	55-64	255	64.7%	10.2%	5.5%	19.6%			
Educational Attainment	Primary or below	288	64.9%	10.1%	4.9%	20.1%			*0.01*
	Had not completed secondary	367	65.4%	11.7%	4.9%	18.0%			
	Completed secondary (F5)	681	63.0%	15.3%	5.6%	16.2%			
	Matriculation	163	63.2%	19.6%	6.1%	11.0%			
	Tertiary or above	588	67.2%	17.9%	5.1%	9.9%			
Occupation	Managerial/professional worker	428	66.6%	18.5%	5.4%	9.6%		*0.000*	
	Clerk	311	73.6%	14.1%	4.2%	8.0%			
	Service worker	228	64.5%	12.7%	5.3%	17.5%			
	Blue collar worker	369	63.4%	12.5%	4.9%	19.2%			
	Not-working	713	61.3%	15.0%	5.9%	17.8%			
Monthly Household Income	Below $8,000	170	66.5%	10.0%	2.9%	20.6%			*0.042*
	$8,000 - $13,999	361	62.9%	15.5%	6.1%	15.5%			
	$14,000 - $19,999	228	61.4%	14.9%	4.4%	19.3%			
	$20,000 - $39,999	540	65.7%	14.1%	5.9%	14.3%			
	$40,000 or above	334	66.8%	18.9%	5.7%	8.7%			

4.3.3 Walking

The walking habit in the past week prior to the survey was revealed to be associated significantly with age, marital status, educational attainment and occupation.

Respondents from the age groups 45-54 (81.9%), 55-64 (86.3%) and 25-34 (80.7%) were more likely to walk as often as 6-7 days a week than those aged 18-24 (72.6%) and 35-44 (76.8%) (Table 4.3.3).

The never married respondents tended to walk less often than the married and the divorced/separated/widowed. 75.8% of the never married respondents walked 6-7 days a week compared to 81.2% of the married respondents and 83.1% of the divorced/separated/widowed (Table 4.3.3).

Less educated respondents also walked more often than better educated respondents (Table 4.3.3).

Services workers, blue collar workers and those not working also walked more often than respondents from other occupations (Table 4.3.3).

Table 4.3.3: No. of days per week spent on walking in the past week prior to the survey (Q10)

Variable	Level	Base	0-1 day	2-3 days	4-5 days	6-7 days	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	277	5.1%	6.9%	15.5%	72.6%			*0.000*
	25-34	467	3.9%	6.9%	8.6%	80.7%			
	35-44	591	7.3%	4.9%	11.0%	76.8%			
	45-54	497	5.0%	6.6%	6.4%	81.9%			
	55-64	256	3.5%	4.3%	5.9%	86.3%			
Marital Status	Never married	674	4.5%	6.2%	13.5%	75.8%		*0.020*	
	Married	1338	5.7%	6.0%	7.1%	81.2%			
	Divorced/separated/widowed	71	4.2%	2.8%	9.9%	83.1%			
Educational Attainment	Primary or below	288	4.2%	4.9%	5.9%	85.1%			*0.003*
	Had not completed secondary	368	5.4%	6.0%	6.0%	82.6%			
	Completed secondary (F5)	682	6.2%	5.6%	10.4%	77.9%			
	Matriculation	163	6.1%	5.5%	14.7%	73.6%			
	Tertiary or above	588	4.4%	7.1%	10.4%	78.1%			
Occupation	Managerial/professional worker	427	6.8%	7.3%	8.4%	77.5%		*0.012*	
	Clerk	310	6.1%	7.1%	11.3%	75.5%			
	Service worker	227	2.6%	4.0%	6.6%	86.8%			
	Blue collar worker	369	8.1%	3.8%	8.4%	79.7%			
	Not-working	713	3.1%	6.3%	10.4%	80.2%			

4.3.4 Physical activity level based on the analysis of IPAQ

The physical activity level based on the IPAQ analysis was found to be associated significantly with gender, educational attainment, occupation and monthly household income.

More males (27.5%) were classified as ‘HEPA active’ than females (18.8%). Respondents with matriculation level of education (62.7%) were more likely to be ‘minimally active’ than their counterparts. Those with tertiary education or above (23.4%) were most likely to be ‘inactive’. Blue collar workers (36.4%) appeared to be the most ‘HEPA active’ respondents compared to those from other occupations. Respondents with higher monthly household income were more likely to be ‘inactive’ (Table 4.3.4).

Table 4.3.4: Physical activity level classified based on categorical score derived from the analysis of IPAQ

Variable	Level	Base	Inactive	Minimally Active	HEPA Active	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	984	19.6%	52.8%	27.5%	*0.000*		
	Female	1089	21.3%	59.5%	18.8%			
Educational Attainment	Primary or below	285	17.9%	55.1%	27.0%		*0.010*	
	Had not completed secondary	365	20.5%	54.0%	25.5%			
	Completed secondary (F5)	679	19.3%	54.5%	26.2%			
	Matriculation	161	19.9%	62.7%	17.4%			
	Tertiary or above	586	23.4%	59.2%	17.4%			
Occupation	Managerial/ professional worker	428	22.9%	55.1%	22.0%	*0.000*		
	Clerk	309	26.5%	60.8%	12.6%			
	Service worker	224	16.5%	53.1%	30.4%			
	Blue collar worker	363	19.3%	44.4%	36.4%			
	Not-working	711	17.7%	63.6%	18.7%			
Household Income	Below $8,000	169	20.7%	52.7%	26.6%		*0.023*	
	$8,000 - $13,999	360	16.9%	55.0%	28.1%			
	$14,000 - $19,999	224	17.0%	59.4%	23.7%			
	$20,000 - $39,999	538	22.3%	59.1%	18.6%			
	$40,000 or above	334	22.8%	53.6%	23.7%			

4.4 Dietary habits

4.4.1 Frequency of consuming fruit per week

Gender, age, marital status, educational attainment and occupation were all found to be associated significantly with fruit consumption.

As reported in previous chapter, 55.7% of all respondents consume fruit every day. Gender breakdown revealed that females (64.9%) were much more likely to consume fruit 6-7 days a week than their counterpart males (48.1%) (Table 4.4.1).

The proportion of respondents consuming fruit 6-7 days a week increases with age. 74.1% of the respondents aged 55-64 maintain this habit compared to only 47.1% of those aged 18-24. On the other hand, the married respondents (62.0%) were more likely to do this than the never married (46.6%) and the divorced/separated/widowed (58.3%). Respondents with tertiary degree education or above (54.0%) were least likely to maintain this habit while those with primary school education or below (67.7%) were most inclined to do so. Respondents who were not working were also more likely to consume fruit as often as 6-7 days a week than the working groups (Table 4.4.1).

Table 4.4.1: Number of days per week in which respondents eat fruit (Q13a)

Variable	Level	Base	0-1 day	2-3 days	4-5 days	6-7 days	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	13.1%	23.1%	15.7%	48.1%		*0.000*	
	Female	1095	5.6%	15.6%	13.9%	64.9%			
Age	18-24	278	10.8%	28.1%	14.0%	47.1%			*0.000*
	25-34	467	12.0%	22.3%	18.6%	47.1%			
	35-44	591	8.0%	20.6%	16.8%	54.7%			
	45-54	496	8.9%	12.7%	12.7%	65.7%			
	55-64	255	5.5%	12.5%	7.8%	74.1%			
Marital Status	Never married	674	12.8%	25.8%	14.8%	46.6%		*0.000*	
	Married	1338	7.5%	16.0%	14.6%	62.0%			
	Divorced/separated/ widowed	72	6.9%	16.7%	18.1%	58.3%			
Educational Attainment	Primary or below	288	7.3%	15.6%	9.4%	67.7%			*0.007*
	Had not completed secondary	368	11.4%	17.1%	15.8%	55.7%			
	Completed secondary (F5)	681	10.1%	19.5%	14.7%	55.7%			
	Matriculation	163	8.0%	22.1%	12.9%	57.1%			
	Tertiary or above	587	7.8%	20.8%	17.4%	54.0%			

Occupation	Managerial/professional worker	427	9.6%	19.4%	15.0%	56.0%		*0.000*	
	Clerk	311	8.4%	19.9%	18.6%	53.1%			
	Service worker	228	9.2%	24.1%	18.4%	48.2%			
	Blue collar worker	369	13.3%	21.1%	15.4%	50.1%			
	Not-working	713	6.7%	15.6%	11.8%	65.9%			

4.4.2 Frequency of consuming vegetables per week

Vegetable consumption was also found to be related significantly with gender, age, marital status, educational attainment and occupation.

As aforementioned, 84.0% of all respondents eat vegetables every day. Similar to fruit consumption, more females (88.4%) consume vegetables as frequently as 6-7 days a week than males (81.6%). More elder respondents (89.0% for those aged 55-64 and 89.3% for those aged 45-54) have this habit than younger respondents (79.3% of those aged 18-24) (Table 4.4.2).

Married respondents (90.4%) were more likely to do so than the never married (75.6%) and the divorced/separated/widowed (76.1%). Respondents with primary school education or below (92.0%) were more likely to have this vegetable dietary habit than their counterparts. Managerial/professional workers (89.5%) and the non-working respondents (86.8%) were also more likely to do so than their counterparts (Table 4.4.2).

Table 4.4.2: No. of days per week in which respondents eat vegetables (Q14a)

Variable	Level	Base	0-1 day	2-3 days	4-5 days	6-7 days	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	992	2.2%	7.0%	9.3%	81.6%		*0.000*	
	Female	1095	1.6%	2.4%	7.6%	88.4%			
Age	18-24	276	1.8%	6.5%	12.3%	79.3%			*0.000*
	25-34	468	2.4%	5.8%	10.5%	81.4%			
	35-44	590	1.7%	4.2%	8.3%	85.8%			
	45-54	496	1.8%	3.2%	5.6%	89.3%			
	55-64	255	1.6%	3.5%	5.9%	89.0%			
Marital Status	Never married	673	2.8%	9.1%	12.5%	75.6%		*0.000*	
	Married	1338	1.4%	2.3%	5.9%	90.4%			
	Divorced/separated/ widowed	71	2.8%	4.2%	16.9%	76.1%			
Educational Attainment	Primary or below	289	1.4%	1.7%	4.8%	92.0%			*0.001*
	Had not completed secondary	368	2.4%	4.3%	7.3%	85.9%			
	Completed secondary (F5)	681	1.9%	4.6%	10.0%	83.6%			

	Matriculation	163	2.5%	4.3%	11.0%	82.2%			
	Tertiary or above	588	1.9%	6.3%	8.3%	83.5%			
Occupation	Managerial/professional worker	427	0.5%	3.5%	6.6%	89.5%		*0.003*	
	Clerk	310	1.3%	6.1%	12.3%	80.3%			
	Service worker	227	1.8%	4.8%	11.9%	81.5%			
	Blue collar worker	370	2.4%	5.7%	8.1%	83.8%			
	Not-working	714	2.5%	3.2%	7.4%	86.8%			

4.4.3 Number of servings of fruit and vegetables consumed per day

The number of servings of fruit and vegetables consumed per day was found to be associated significantly with gender, age, marital status and occupation.

Respondents who were less likely to eat 5 or more servings of fruit and vegetables per day as recommended by WHO were male (86.2%), young respondents aged 18-24 (86.3%), the never married (85.3%), clerks (85.5%), service workers (85.1%) and blue collar workers (85.4%) (Table 4.4.3).

Table 4.4.3: Number of servings of fruit and vegetables consumed per day (Q13b & Q14b)

Variable	Level	Base	Less than 5 servings of fruit and vegetables	5 or more servings of fruit and vegetables	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	86.2%	13.8%		*0.000*	
	Female	1095	78.7%	21.3%			
Age	18-24	277	86.3%	13.7%			*0.000*
	25-34	468	82.9%	17.1%			
	35-44	591	84.1%	15.9%			
	45-54	496	82.3%	17.7%			
	55-64	255	72.5%	27.5%			
Marital Status	Never married	674	85.3%	14.7%		*0.024*	
	Married	1338	80.9%	19.1%			
	Divorced/separated/ widowed	71	78.9%	21.1%			
Occupation	Managerial/ professional worker	427	82.9%	17.1%		*0.002*	
	Clerk	310	85.5%	14.5%			
	Service worker	228	85.1%	14.9%			
	Blue collar worker	369	85.4%	14.6%			
	Not-working	713	77.3%	22.7%			

4.5 Consumption behaviour of certain selected high-risk food items

4.5.1 Siu mei

Consumption pattern of siu mei in the previous 3 months prior to the survey was significantly associated with gender, age, occupation and monthly household income.

As reported previously, most respondents (87.7% excluding 'can't remember') had consumed siu mei in the previous 3 months prior to the survey.

More males (59.2%) ate siu mei as often as once or more a week than females did (40.9%). Respondents aged 35 or above were also more likely than those below 35 years to consume once or more a week. Service workers and those with higher monthly household income were more likely to have such a consumption pattern (Table 4.5.1).

Table 4.5.1: Frequency of consuming siu mei in the past 3 months prior to the survey (Q15e)

Variable	Level	Base	Once or more per week	3 times or less per month	None	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	985	59.2%	31.1%	9.7%		*0.000*	
	Female	1077	40.9%	44.6%	14.6%			
Age	18-24	276	42.8%	42.0%	15.2%			*0.018*
	25-34	464	47.8%	39.0%	13.1%			
	35-44	583	50.6%	38.3%	11.1%			
	45-54	487	53.2%	36.1%	10.7%			
	55-64	251	51.0%	35.9%	13.1%			
Occupation	Managerial/ professional worker	422	52.8%	37.7%	9.5%		*0.001*	
	Clerk	307	50.2%	41.4%	8.5%			
	Service worker	224	58.0%	28.6%	13.4%			
	Blue collar worker	362	54.4%	32.3%	13.3%			
	Not-working	707	42.0%	42.9%	15.1%			
Monthly Household Income	Below $8,000	167	34.7%	44.3%	21.0%			*0.000*
	$8,000 - $13,999	357	47.6%	40.6%	11.8%			
	$14,000 - $19,999	226	50.9%	35.8%	13.3%			
	$20,000 - $39,999	534	51.1%	38.0%	10.9%			
	$40,000 or above	334	53.3%	36.8%	9.9%			

4.5.2 Sashimi/raw fish

Consumption of sashimi/raw fish in the past 3 months prior to the survey was also associated significantly with age, marital status, educational attainment, occupation and monthly household income.

As reported in the previous chapter, less than half of all respondents (44.7% excluding 'can't remember') consumed sashimi/raw fish in the past 3 months prior to the survey.

The likelihood of consuming these food increases with the level of education or monthly household income but decreases with the age. The never married respondents and the managerial/professional workers and clerks were also more likely to have consumed these types of food than their counterparts (Table 4.5.2).

Table 4.5.2: Frequency of consuming sashimi/raw fish in the past 3 months prior to the survey (Q15c)

Variable	Level	Base	Once or more per week	3 times or less per month	None	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	277	9.0%	49.1%	41.9%			*0.000*
	25-34	463	9.5%	47.1%	43.4%			
	35-44	584	6.2%	44.5%	49.3%			
	45-54	491	3.3%	29.9%	66.8%			
	55-64	254	1.6%	15.4%	83.1%			
Marital Status	Never married	670	9.7%	47.6%	42.7%		*0.000*	
	Married	1324	3.9%	34.8%	61.3%			
	Divorced/separated/ widowed	70	10.0%	25.7%	64.3%			
Educational Attainment	Primary or below	287	0.3%	15.3%	84.3%			*0.000*
	Had not completed secondary	365	3.3%	23.3%	73.4%			
	Completed secondary (F5)	674	6.4%	42.7%	50.9%			
	Matriculation	163	9.2%	44.8%	46.0%			
	Tertiary or above	580	9.3%	53.4%	37.2%			
Occupation	Managerial/ professional worker	422	8.3%	55.2%	36.5%		*0.000*	
	Clerk	309	10.0%	45.6%	44.3%			
	Service worker	226	8.0%	38.5%	53.5%			
	Blue collar worker	368	3.5%	25.8%	70.7%			
	Not-working	706	3.7%	32.4%	63.9%			
Monthly Household Income	Below $8,000	170	2.4%	16.5%	81.2%			*0.000*
	$8,000 - $13,999	358	3.1%	29.1%	67.9%			
	$14,000 - $19,999	228	6.1%	35.5%	58.3%			
	$20,000 - $39,999	534	7.9%	45.9%	46.3%			
	$40,000 or above	331	11.5%	52.6%	36.0%			

4.5.3 Salad

The habit of eating salad in the past 3 months prior to the survey is significantly associated with gender, age, educational attainment, occupation and monthly household income.

As reported in previous chapter, less than half of all respondents (44.5% excluding 'can't remember') ate salad in the past 3 months prior to the survey.

The likelihood of consuming salad increases with level of education and monthly household income. On the other hand, females (49.5%) were more likely to eat salad than males (39.0%). Respondents from age group 25-34 (50.0%) and 35-44 (50.2%) were more inclined to eat salad compared to those aged 55-64 (30.7%). Managerial/professional workers tended to consume salad more often than their counterparts (Table 4.5.3).

Table 4.5.3: Frequency of consuming salad in the past 3 months prior to the survey (Q15f)

Variable	Level	Base	Once or more per week	3 times or less per month	None	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	987	12.5%	26.5%	61.0%		*0.000*	
	Female	1077	11.5%	38.0%	50.5%			
Age	18-24	276	12.3%	29.3%	58.3%			*0.000*
	25-34	464	15.1%	34.9%	50.0%			
	35-44	584	14.6%	35.6%	49.8%			
	45-54	485	8.2%	32.8%	59.0%			
	55-64	254	7.1%	23.6%	69.3%			
Educational Attainment	Primary school or below	286	3.1%	23.1%	73.8%			*0.000*
	Had not completed secondary	362	4.7%	24.9%	70.4%			
	Completed secondary (F5)	672	9.1%	36.5%	54.5%			
	Matriculation	159	17.0%	36.5%	46.5%			
	Tertiary or above	584	22.8%	36.3%	40.9%			
Occupation	Managerial/professional worker	421	21.9%	39.0%	39.2%		*0.000*	
	Clerk	306	11.1%	43.8%	45.1%			
	Service worker	226	11.5%	33.2%	55.3%			
	Blue collar worker	366	7.4%	22.4%	70.2%			
	Not-working	706	8.4%	28.6%	63.0%			
Monthly Household	Below $8,000	169	5.3%	21.3%	73.4%			*0.000*
	$8,000 - $13,999	358	4.5%	28.8%	66.8%			

Income	$14,000 - $19,999	227	8.8%	33.0%	58.1%			
	$20,000 - $39,999	533	12.0%	35.1%	52.9%			
	$40,000 or above	333	25.2%	40.8%	33.9%			

4.5.4 Undercooked eggs

Consumption of soft-boiled, loosely scrambled or running eggs in the past 3 months prior to the survey was associated significantly with all the demographic variables.

Approximately one-third (32.8% excluding 'can't remember') of all respondents ate undercooked eggs in the last 3 months as reported in the previous chapter.

Males, younger respondents, never married respondents, tertiary educated or above respondents, managerial/professional workers and higher monthly household income respondents were all found to be more likely to consume undercooked eggs than their counterparts (Table 4.5.4).

Table 4.5.4: Frequency of consuming undercooked eggs in the past 3 months prior to the survey (Q15d)

Variable	Level	Base	Once or more per week	3 times or less per month	None	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	981	27.0%	10.7%	62.3%		*0.000*	
	Female	1090	14.8%	13.6%	71.7%			
Age	18-24	272	19.9%	18.4%	61.8%			*0.000*
	25-34	464	26.9%	14.7%	58.4%			
	35-44	586	22.9%	12.5%	64.7%			
	45-54	493	17.4%	7.9%	74.6%			
	55-64	254	10.2%	8.7%	81.1%			
Marital Status	Never married	669	21.5%	17.2%	61.3%		*0.002*	
	Married	1328	20.5%	9.6%	69.9%			
	Divorced/separated/widowed	71	14.1%	14.1%	71.8%			
Educational Attainment	Primary school or below	287	12.2%	7.7%	80.1%			*0.000*
	Had not completed secondary	361	22.4%	8.9%	68.7%			
	Completed secondary (F5)	679	23.0%	11.9%	65.1%			
	Matriculation	162	18.5%	14.2%	67.3%			
	Tertiary or above	583	21.3%	16.5%	62.3%			
Occupation	Managerial/professional worker	422	24.4%	16.6%	59.0%		*0.000*	
	Clerk	310	24.8%	13.9%	61.3%			

	Service worker	227	25.1%	11.5%	63.4%			
	Blue collar worker	363	20.4%	9.9%	69.7%			
	Not-working	707	15.1%	10.6%	74.3%			
Monthly Household Income	Below $8,000	170	10.6%	11.2%	78.2%			*0.000*
	$8,000 - $13,999	359	15.0%	10.0%	74.9%			
	$14,000 - $19,999	225	25.8%	12.0%	62.2%			
	$20,000 - $39,999	534	25.7%	11.0%	63.3%			
	$40,000 or above	331	26.0%	16.0%	58.0%			

4.5.5 Raw oysters

The frequency of consuming raw oysters in the previous 3 months prior to the survey was found to be associated significantly with age, educational attainment, occupation and monthly household income.

As reported in the previous chapter, only 14.1% of respondents (excluding 'can't remember') consumed raw oysters in the past 3 months prior to the survey.

Respondents who were more likely to have consumed raw oysters were aged between 25 and 44, had tertiary education or above, managerial/professional workers, service workers and those with monthly household incomes of $40,000 or above (Table 4.5.5).

Table 4.5.5: Frequency of consuming raw oysters in the past 3 months prior to the survey (Q15a)

Variable	Level	Base	Once or more per week	3 times or less per month	None	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	277	1.1%	12.3%	86.6%			*0.009*
	25-34	465	0.9%	16.3%	82.8%			
	35-44	584	1.0%	15.9%	83.0%			
	45-54	490	0.4%	11.6%	88.0%			
	55-64	254	2.0%	5.5%	92.5%			
Educational Attainment	Primary or below	288	0.3%	5.2%	94.4%			*0.000*
	Had not completed secondary	362	1.1%	8.0%	90.9%			
	Completed secondary (F5)	677	0.3%	15.7%	84.0%			
	Matriculation	159	0.6%	13.8%	85.5%			
	Tertiary or above	581	1.7%	17.6%	80.7%			
Occupation	Managerial/professional worker	420	1.2%	18.3%	80.5%		*0.000*	
	Clerk	307	0.3%	14.7%	85.0%			
	Service worker	225	0.9%	17.8%	81.3%			

	Blue collar worker	368	1.4%	8.2%	90.5%			
	Not-working	708	0.8%	10.5%	88.7%			
Monthly Household Income	Below $8,000	171	0.6%	9.9%	89.5%			*0.000*
	$8,000 - $13,999	362	0.6%	8.3%	91.2%			
	$14,000 - $19,999	226	0.9%	8.8%	90.3%			
	$20,000 - $39,999	534	0.6%	14.2%	85.2%			
	$40,000 or above	329	1.5%	22.8%	75.7%			

4.6 Food handling practices

4.6.1 Washing all food thoroughly before cooking, especially seafood

This practice was associated significantly with age and marital status.

Younger respondents (73.8%) were less likely to comply with this practice '*all of the time*' than their counterparts (above 80%) in doing so. The never married respondents (77.7%) were also less likely to carry out this practice '*all of the time*' than the married respondents (84.5%) and the divorced/separated/widowed respondents (80.0%) (Table 4.6.1).

Table 4.6.1: How often respondents conformed to the practice 'washing all food thoroughly before cooking' (Q16)

Variable	Level	Base	All of the time	Most of the time	Some of the time	None of the time	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	210	73.8%	20.5%	5.2%	0.5%			*0.001*
	25-34	404	80.7%	17.8%	1.5%	0.0%			
	35-44	524	85.7%	13.0%	1.0%	0.4%			
	45-54	465	82.4%	16.8%	0.9%	0.0%			
	55-64	239	85.8%	13.0%	0.8%	0.4%			
Marital Status	Never married	539	77.7%	18.6%	3.5%	0.2%		*0.000*	
	Married	1234	84.5%	14.5%	0.7%	0.2%			
	Divorced/separated/widowed	65	80.0%	20.0%	0.0%	0.0%			

4.6.2 Keeping raw and cooked food separately

Compliance with this practice was associated significantly with gender, age, marital status and occupation.

Males, the respondents aged 18-24, the never married and the blue collar workers were both found to conform to the practice less often than their counterparts (Table 4.6.2).

Table 4.6.2: How often respondents conformed to the practice 'keeping raw and cooked food separately' (Q17)

Variable	Level	Base	All of the time	Most of the time	Some of the time	None of the time	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	857	66.5%	23.1%	8.1%	2.3%		*0.034*	
	Female	1042	69.6%	22.5%	6.5%	1.4%			
Age	18-24	238	54.6%	25.6%	15.1%	4.6%			*0.000*
	25-34	423	64.8%	25.1%	8.7%	1.4%			
	35-44	540	74.4%	19.6%	5.2%	0.7%			
	45-54	462	69.5%	23.4%	5.2%	1.9%			
	55-64	236	71.2%	21.6%	5.1%	2.1%			

Marital Status	Never married	590	59.3%	25.6%	12.2%	2.9%		*0.000*	
	Married	1239	72.3%	21.4%	4.8%	1.5%			
	Divorced/separated/widowed	66	68.2%	24.2%	7.6%	0.0%			
Occupation	Managerial/professional worker	384	73.7%	20.8%	4.9%	0.5%		*0.015*	
	Clerk	290	69.0%	19.3%	9.7%	2.1%			
	Service worker	205	71.2%	19.0%	7.8%	2.0%			
	Blue collar worker	317	62.8%	24.6%	8.5%	4.1%			
	Not-working	668	66.5%	25.6%	6.7%	1.2%			

4.6.3 Cooking/reheating food thoroughly, including seafood

Gender, age, marital status, educational attainment and monthly household income were all found to be associated significantly with this practice.

Respondents who followed this practice less often were more likely to be male, those aged 34 or below, never married, tertiary educated or above and those with monthly household incomes of $40,000 or above (Table 4.6.3).

Table 4.6.3: How often respondents conformed to the practice 'Cooking/reheating food thoroughly' (Q18)

Variable	Level	Base	All of the time	Most of the time	Some of the time	None of the time	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	899	68.3%	22.6%	7.7%	1.4%		*0.000*	
	Female	1048	76.5%	16.7%	5.9%	0.9%			
Age	18-24	248	61.7%	25.8%	11.3%	1.2%			*0.000*
	25-34	431	65.7%	23.9%	9.0%	1.4%			
	35-44	549	79.6%	15.3%	4.6%	0.5%			
	45-54	475	76.2%	17.9%	5.1%	0.8%			
	55-64	240	75.0%	16.7%	6.3%	2.1%			
Marital Status	Never married	604	63.4%	25.7%	9.9%	1.0%		*0.000*	
	Married	1269	77.1%	16.6%	5.1%	1.2%			
	Divorced/separated/widowed	70	71.4%	17.1%	10.0%	1.4%			
Educational Attainment	Primary or below	276	78.3%	15.2%	4.7%	1.8%			*0.000*
	Had not completed secondary	349	76.2%	16.9%	6.3%	0.6%			
	Completed secondary (F5)	637	74.1%	18.5%	6.4%	0.9%			
	Matriculation	155	69.0%	20.0%	9.0%	1.9%			
	Tertiary or above	528	66.9%	24.1%	8.0%	1.1%			

Monthly Household Income	Below $8,000	162	82.1%	10.5%	7.4%	0.0%			*0.006*
	$8,000 - $13,999	350	74.3%	19.7%	4.9%	1.1%			
	$14,000 - $19,999	217	76.5%	16.6%	5.5%	1.4%			
	$20,000 - $39,999	506	71.7%	19.6%	7.9%	0.8%			
	$40,000 or above	301	69.1%	24.6%	4.7%	1.7%			

4.6.4 Washing hands before handling food

Conformance to this practice was associated significantly with gender, age and marital status.

Those who were less likely to comply with this practice *'all of the time'* were male respondents, those aged 18-24, the never married and the divorced/separated/widowed (Table 4.6.4).

Table 4.6.4: How often respondents conformed to the practice 'washing hands before handling food' (Q19)

Variable	Level	Base	All of the time	Most of the time	Some of the time	None of the time	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	928	70.2%	21.4%	7.9%	0.5%		*0.000*	
	Female	1073	77.0%	18.0%	4.9%	0.1%			
Age	18-24	257	63.4%	26.1%	10.1%	0.4%			*0.001*
	25-34	447	73.4%	20.4%	5.8%	0.4%			
	35-44	566	77.0%	17.5%	5.3%	0.2%			
	45-54	483	73.3%	19.7%	6.6%	0.4%			
	55-64	250	78.4%	16.0%	5.2%	0.4%			
Marital Status	Never married	632	68.0%	22.9%	8.5%	0.5%		*0.000*	
	Married	1295	76.8%	17.8%	5.0%	0.3%			
	Divorced/separated/ widowed	71	69.0%	21.1%	9.9%	0.0%			

4.7 Pattern of alcohol consumption

The responses of two cases were treated as outliers and were excluded for analyses from section 4.7.2 to 4.7.4. Please refer to section 3.7 for the reasons of treating these responses as outliers.

4.7.1 Consumption of alcohol

Consumption of at least one alcoholic drink in the past month prior to the survey was found to be associated significantly with all the demographic variables.

More males (58.9%) consumed at least one alcoholic drink last month than females (28.0%) (Table 4.7.1).
In terms of age, elder respondents aged 55-64 (30.1%) were least likely to consume alcohol while those aged 25-34 (47.6%) were most likely. Married respondents (39.6%) were also less likely to do so compared to the never married (48.3%) and the divorced/separated/widowed (46.5%) (Table 4.7.1).

The higher the education level and monthly household income, the more likely the respondents consumed alcohol. Clerks and non-working respondents were less likely to consume alcohol than their counterparts (Table 4.7.1).

Table 4.7.1: Consumption of at least one alcoholic drink the previous month prior to the survey (Q20a)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	58.9%	41.1%	*0.000*		
	Female	1095	28.0%	72.0%			
Age	18-24	277	45.1%	54.9%		*0.000*	
	25-34	468	47.6%	52.4%			
	35-44	590	42.9%	57.1%			
	45-54	496	43.1%	56.9%			
	55-64	256	30.1%	69.9%			
Marital Status	Never married	675	48.3%	51.7%	*0.001*		
	Married	1338	39.6%	60.4%			
	Divorced/separated/widowed	71	46.5%	53.5%			
Educational Attainment	Primary or below	289	31.5%	68.5%		*0.000*	
	Had not completed secondary	368	39.1%	60.9%			
	Completed secondary (F5)	681	44.3%	55.7%			
	Matriculation	163	41.1%	58.9%			
	Tertiary or above	587	49.2%	50.8%			
Occupation	Managerial/professional worker	427	55.3%	44.7%	*0.000*		

	Clerk	310	38.4%	61.6%			
	Service worker	227	50.2%	49.8%			
	Blue collar worker	369	52.8%	47.2%			
	Not-working	714	29.0%	71.0%			
Monthly Household Income	Below $8,000	170	27.6%	72.4%		*0.000*	
	$8,000 - $13,999	362	40.6%	59.4%			
	$14,000 - $19,999	228	40.4%	59.6%			
	$20,000 - $39,999	540	45.4%	54.6%			
	$40,000 or above	334	50.9%	49.1%			

4.7.2 Frequency of alcohol consumption

Frequency of consuming alcohol per week during the past month prior to the survey was associated significantly with gender, age, marital status, educational attainment and occupation.

Amongst the drinkers, male appeared to drink alcohol more often than female. 14.4% of male drinkers consume alcohol as often as 6-7 days per week compared to 2.9% of female drinkers in doing so. The older the drinkers, the more likely they drank 6-7 days per week. Other drinkers who were more likely to engage in drinking alcohol more often than their counterparts were the married (12.7%), the blue collar workers (17.4%) and those with primary school education or below (22.5%) (Table 4.7.2).

Table 4.7.2: Frequency of consuming at least one alcoholic drink the previous month prior to the survey (Q20b)

Variable	Level	Base	6 days or more per week	4-5 days per week	2-3 days per week	1 day or less per week	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	584	14.4%	5.0%	20.9%	59.8%		*0.000*	
	Female	308	2.9%	0.6%	9.7%	86.7%			
Age	18-24	125	4.0%	2.4%	15.2%	78.4%			*0.000*
	25-34	222	3.6%	2.7%	11.3%	82.4%			
	35-44	252	10.7%	4.0%	18.7%	66.7%			
	45-54	213	15.5%	3.8%	22.5%	58.2%			
	55-64	77	24.7%	3.9%	15.6%	55.8%			
Marital Status	Never married	326	7.4%	2.1%	14.4%	76.1%		*0.009*	
	Married	528	12.7%	4.0%	18.2%	65.2%			
	Divorced/separated/widowed	33	3.0%	9.1%	18.2%	69.7%			
Educational Attainment	Primary or below	89	22.5%	3.4%	25.8%	48.3%			*0.001*
	Had not completed secondary	143	15.4%	1.4%	15.4%	67.8%			
	Completed secondary (F5)	301	9.0%	4.0%	15.9%	71.1%			

	Matriculation	67	4.5%	3.0%	11.9%	80.6%			
	Tertiary or above	287	7.0%	3.5%	17.1%	72.5%			
Occupation	Managerial/professional worker	235	8.9%	4.3%	18.7%	68.1%		*0.000*	
	Clerk	119	5.9%	1.7%	9.2%	83.2%			
	Service worker	114	8.8%	3.5%	18.4%	69.3%			
	Blue collar worker	195	17.4%	4.6%	23.1%	54.9%			
	Not-working	206	9.2%	1.5%	11.7%	77.7%			

4.7.3 Consumption of at least 5 glasses/cans of alcohol on one occasion

Consumption of at least 5 glasses/cans of alcohl on one occasion during the past month prior to the survey was associated significantly with gender, age and occupation.

Many more male drinkers (31.8%) than females (9.1%) had experience of drinking at least 5 glasses/cans of alcohol on one occasion last month. Those aged 18-24 (31.2%) were most likely to have such experience while those aged 55-64 (11.7%) were least likely. Blue collar workers (34.5%) and service workers (30.4%) were more likely than the rest of drinkers to do so (Table 4.7.3).

Table 4.7.3: Consumption of at least 5 glasses/cans of alcohol on one occasion (Q20d)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	582	31.8%	68.2%	*0.000*		
	Female	307	9.1%	90.9%			
Age	18-24	125	31.2%	68.8%		*0.034*	
	25-34	223	22.4%	77.6%			
	35-44	252	26.2%	73.8%			
	45-54	213	23.5%	76.5%			
	55-64	77	11.7%	88.3%			
Occupation	Managerial/professional worker	235	22.1%	77.9%	*0.000*		
	Clerk	119	16.0%	84.0%			
	Service worker	115	30.4%	69.6%			
	Blue collar worker	194	34.5%	65.5%			
	Not-working	207	15.5%	84.5%			

4.7.4 Drinking habit by safe level

Significant associations were found between respondent's drinking safety level, gender, educational attainment and occupation.

The drinking habits of female drinkers (82.5%) were more likely to be within safe level

than males (70.7%). Those with matriculation level of education or above (80.6% for matriculation and 82.9% for tertiary education or above) were also more likely to have a safe drinking habit than those with education below matriculation. Blue collar workers (66.5%) were least likely to maintain their drinking habits within safe level in terms of occupation (Table 4.7.4).

Table 4.7.4: Classification of drinking habit by safe level

Variable	Level	Base	Within safe level	Exceed safe level	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	583	70.7%	29.3%	*0.000*		
	Female	308	82.5%	17.5%			
Educational Attainment	Primary or below	90	72.2%	27.8%		*0.001*	
	Had not completed secondary	143	66.4%	33.6%			
	Completed secondary (F5)	302	70.2%	29.8%			
	Matriculation	67	80.6%	19.4%			
	Tertiary or above	287	82.9%	17.1%			
Occupation	Managerial/professional worker	236	80.1%	19.9%	*0.006*		
	Clerk	119	78.2%	21.8%			
	Service worker	114	69.3%	30.7%			
	Blue collar worker	194	66.5%	33.5%			
	Not-working	207	78.3%	21.7%			

4.8 Smoking habits

4.8.1 Smoking habits

Smoking is associated significantly with gender, educational attainment and occupation.

Males (29.6%) were much more likely to be current smokers than females (5.1%). Respondents with tertiary education (9.0%) or above were least likely to be current smokers while respondents who had not completed secondary school (29.3%) were most likely. Blue collar workers (32.2%) and service workers (25.0%) were also more likely to smoke currently than the rest of occupations (Table 4.8.1).

Table 4.8.1: Smoking habit (Q21a)

Variable	Level	Base	Yes, but not now	Yes, and still smoking	Never	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	12.5%	29.6%	57.9%	*0.000*		
	Female	1095	3.4%	5.1%	91.5%			
Educational Attainment	Primary or below	288	8.0%	15.6%	76.4%		*0.000*	
	Had not completed secondary	368	9.0%	29.3%	61.7%			
	Completed secondary (F5)	681	7.6%	17.2%	75.2%			
	Matriculation	163	8.0%	16.6%	75.5%			
	Tertiary or above	587	6.6%	9.0%	84.3%			
Occupation	Managerial/professional worker	427	9.1%	13.6%	77.3%	*0.000*		
	Clerk	310	4.8%	7.7%	87.4%			
	Service worker	228	6.1%	25.0%	68.9%			
	Blue collar worker	370	13.0%	32.2%	54.9%			
	Not-working	714	6.2%	11.2%	82.6%			

4.8.2 Amount of cigarettes consumed

The number of cigarettes consumed per day was associated significantly with all demographic variables.

Current smokers who were most likely to smoke more than 20 cigarettes per day include males (15.7%), those aged 45-54 (19.8%), the divorced/separated/widowed smokers (41.2%), those with primary education or lower (26.7%), blue collar workers who smoke (21.8%) and those with monthly household income below $8,000 (29.4%) (Table 4.8.2).

Table 4.8.2: Number of cigarettes smoked on average per day (Q21c)

Variable	Level	Base	Less than 1 per day now	1-10 per day now	11-20 per day now	More than 20 per day now	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	293	5.5%	37.5%	41.3%	15.7%		*0.001*	
	Female	56	10.7%	60.7%	19.6%	8.9%			
Age	18-24	36	11.1%	52.8%	25.0%	11.1%			*0.005*
	25-34	90	6.7%	46.7%	36.7%	10.0%			
	35-44	84	6.0%	45.2%	34.5%	14.3%			
	45-54	96	5.2%	29.2%	45.8%	19.8%			
	55-64	45	4.4%	37.8%	40.0%	17.8%			
Marital Status	Never married	112	7.1%	46.4%	35.7%	10.7%		*0.018*	
	Married	220	6.4%	39.5%	39.5%	14.5%			
	Divorced/separated/ widowed	17	0.0%	29.4%	29.4%	41.2%			
Educational Attainment	Primary or below	45	2.2%	37.8%	33.3%	26.7%			*0.000*
	Had not completed secondary	108	2.8%	35.2%	45.4%	16.7%			
	Completed secondary (F5)	117	4.3%	46.2%	35.9%	13.7%			
	Matriculation	26	11.5%	38.5%	46.2%	3.8%			
	Tertiary or above	54	18.5%	46.3%	25.9%	9.3%			
Occupation	Managerial/professional worker	58	10.3%	48.3%	32.8%	8.6%		*0.028*	
	Clerk	24	12.5%	50.0%	29.2%	8.3%			
	Service worker	56	3.6%	44.6%	48.2%	3.6%			
	Blue collar worker	119	2.5%	36.1%	39.5%	21.8%			
	Not-working	80	8.8%	40.0%	33.8%	17.5%			
Monthly Household Income	Below $8,000	34	2.9%	23.5%	44.1%	29.4%			*0.001*
	$8,000 - $13,999	68	1.5%	39.7%	42.6%	16.2%			
	$14,000 - $19,999	33	6.1%	36.4%	42.4%	15.2%			
	$20,000 - $39,999	86	8.1%	44.2%	38.4%	9.3%			
	$40,000 or above	42	11.9%	47.6%	26.2%	14.3%			

4.9 Pedestrian and driver road safety behaviour

4.9.1 Driving in the past 12 months

Driving a vehicle/car in the past 12 months prior to the survey was associated significantly with gender, age, educational attainment, occupation and monthly household income.

More males (37.8%) had driven a vehicle during past 12 months prior to the survey than females (10.5%). Those aged 25-34 were more likely to drive in the previous year than their counterparts. On the other hand, managerial/professional workers, those with tertiary education or above and those with monthly household income of $40,000 or above were more likely to drive (Table 4.9.1).

Table 4.9.1: Driving a vehicle/car during the previous 12 months prior to the survey (Q22a)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	37.8%	62.2%	*0.000*		
	Female	1095	10.5%	89.5%			
Age	18-24	277	14.4%	85.6%		*0.000*	
	25-34	467	31.7%	68.3%			
	35-44	591	26.6%	73.4%			
	45-54	497	21.5%	78.5%			
	55-64	255	14.5%	85.5%			
Educational Attainment	Primary or below	288	8.0%	92.0%		*0.000*	
	Had not completed secondary	368	21.7%	78.3%			
	Completed secondary (F5)	681	23.5%	76.5%			
	Matriculation	163	21.5%	78.5%			
	Tertiary or above	587	32.9%	67.1%			
Occupation	Managerial/professional worker	427	40.3%	59.7%	*0.000*		
	Clerk	310	14.5%	85.5%			
	Service worker	228	30.3%	69.7%			
	Blue collar worker	369	33.9%	66.1%			
	Not-working	713	9.1%	90.9%			
Monthly Household Income	Below $8,000	171	6.4%	93.6%		*0.000*	
	$8,000 - $13,999	362	16.3%	83.7%			
	$14,000 - $19,999	228	14.5%	85.5%			
	$20,000 - $39,999	540	25.2%	74.8%			
	$40,000 or above	334	46.1%	53.9%			

4.9.2 Breaking speed limit

Frequency of breaking speed limit by 15 miles or above was associated significantly with gender and age.

Male drivers tended to break the speed limit more often than females. Younger drivers were also more likely to break speed limit '*most of the time'* (Table 4.9.2).

Table 4.9.2: The extent of the speed limit being exceeded by 15km per hour or above (Q22b)

Variable	Level	Base	All of the time	Most of the time	Some of the time	None of the time	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	368	6.5%	13.9%	48.1%	31.5%		*0.000*	
	Female	116	5.2%	11.2%	32.8%	50.9%			
Age	18-24	40	5.0%	20.0%	40.0%	35.0%			*0.034*
	25-34	147	4.8%	14.3%	51.0%	29.9%			
	35-44	157	5.7%	14.0%	45.2%	35.0%			
	45-54	104	8.7%	11.5%	39.4%	40.4%			
	55-64	37	8.1%	2.7%	35.1%	54.1%			

4.9.3 Use of seat-belts

The habit of using a seat-belt where it is mandatory and available (such as in private car, taxi or public light bus) was found to be associated significantly with age, marital status, educational attainment and occupation.

The older the respondents, the more likely they use seat-belts '*all of the time'*. The never married respondents (59.1%) were less likely to use seat-belts than the married (73.2%) and the divorced/separated/widowed (82.6%).The other groups who were least likely to use seat-belts '*all of the time'* were respondents with matriculation level of education (56.1%) and the service workers (61.2%) (Table 4.9.3).

Table 4.9.3: The extent of compliance with the regulation of 'using a seat-belt where it is mandatory and available' (Q23)

Variable	Level	Base	All of the time	Most of the time	Some of the time	None of the time	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	268	41.4%	26.5%	24.3%	7.8%			*0.000*
	25-34	458	66.8%	16.8%	11.6%	4.8%			
	35-44	580	70.5%	16.6%	10.5%	2.4%			
	45-54	481	79.2%	10.0%	7.9%	2.9%			
	55-64	244	79.5%	12.3%	6.1%	2.0%			
Marital Status	Never married	658	59.1%	21.1%	14.6%	5.2%		*0.000*	
	Married	1300	73.2%	13.7%	10.0%	3.2%			

	Divorced/separated/widowed	69	82.6%	5.8%	8.7%	2.9%			
Educational Attainment	Primary or below	271	76.8%	8.1%	9.6%	5.5%			*0.042*
	Had not completed secondary	353	71.7%	15.6%	10.8%	2.0%			
	Completed secondary (F5)	667	67.0%	16.5%	12.7%	3.7%			
	Matriculation	157	56.1%	19.1%	18.5%	6.4%			
	Tertiary or above	579	69.8%	17.8%	9.2%	3.3%			
Occupation	Managerial/professional worker	420	73.1%	16.2%	8.1%	2.6%		*0.014*	
	Clerk	306	69.6%	17.0%	11.1%	2.3%			
	Service worker	219	61.2%	16.9%	15.5%	6.4%			
	Blue collar worker	349	71.3%	16.0%	8.3%	4.3%			
	Not-working	697	67.7%	14.3%	13.8%	4.2%			

4.9.4 Compliance with traffic instructions to cross road

The habit of crossing road by ignoring traffic instructions (e.g. ignoring traffic light instructions, not using zebra or footbridge) was found to be associated significantly with all the demographic variables.

Female pedestrians comply with traffic instructions more often than males when crossing the road. 22.8% of females never crossed road by ignoring traffic instructions compared to 18.2% of males in doing so. Elder pedestrians tended to conform to traffic instructions when crossing the road much more than younger pedestrians. 37.6% of the pedestrians aged 55-64 never violate such traffic rules compared to only 7.9% of the aged 18-24. Those who were most likely to cross roads by ignoring traffic instructions were those never married, better educated, clerks and those with higher monthly household incomes (Table 4.9.4).

Table 4.9.4: The extent of ignoring traffic instructions, not using zebra-crossing or footbridge to cross road (Q24)

Variable	Level	Base	All of the time	Most of the time	Some of the time	None of the time	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	991	0.9%	11.0%	69.9%	18.2%		*0.000*	
	Female	1091	0.5%	7.1%	69.6%	22.8%			
Age	18-24	278	0.7%	16.5%	74.8%	7.9%			*0.000*
	25-34	468	0.9%	9.4%	75.6%	14.1%			
	35-44	588	0.9%	8.0%	69.2%	21.9%			
	45-54	496	0.4%	6.9%	69.4%	23.4%			
	55-64	255	1.2%	5.9%	55.3%	37.6%			
Marital Status	Never married	674	0.6%	12.8%	73.0%	13.6%		*0.000*	
	Married	1335	0.7%	7.2%	68.2%	23.8%			

	Divorced/separated/widowed	72	0.0%	6.9%	66.7%	26.4%			
Educational Attainment	Primary or below	288	0.7%	8.0%	65.3%	26.0%			*0.000*
	Had not completed secondary	368	0.3%	8.2%	63.3%	28.3%			
	Completed secondary (F5)	678	0.4%	7.5%	74.0%	18.0%			
	Matriculation	162	0.6%	11.1%	69.8%	18.5%			
	Tertiary or above	587	1.0%	11.1%	71.2%	16.7%			
Occupation	Managerial/professional worker	427	0.7%	8.7%	74.2%	16.4%		*0.000*	
	Clerk	309	0.0%	10.7%	75.1%	14.2%			
	Service worker	228	2.2%	9.6%	71.1%	17.1%			
	Blue collar worker	368	1.4%	9.0%	70.1%	19.6%			
	Not-working	712	0.0%	8.0%	64.7%	27.2%			
Monthly Household Income	Below $8,000	170	0.0%	4.7%	64.7%	30.6%			*0.000*
	$8,000 - $13,999	360	0.3%	7.5%	70.0%	22.2%			
	$14,000 - $19,999	228	1.3%	10.5%	67.5%	20.6%			
	$20,000 - $39,999	538	0.6%	9.1%	73.2%	17.1%			
	$40,000 or above	334	0.6%	11.1%	73.7%	14.7%			

4.10 Traditional Chinese Medicine consultation behaviour

Gender, age, marital status, occupation and monthly household income were all found to be significantly associated significant with respondents' behaviour in consulting TCMP during the past 12 months prior to the survey.

More females (35.5%) consulted TCMP than males (25.4%). Other respondents who were more likely to consult TCMP were those aged 35-44 (36.4%), divorced/separated/widowed (43.7%), managerial/professional workers (36.0%) and those with monthly household income of $40,000 or above (36.2%) (Table 4.10).

Table 4.10: Having consulted Traditional Chinese Medicine Practitioners in the past 12 months prior to the survey (Q25)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	25.4%	74.6%	*0.000*		
	Female	1096	35.5%	64.5%			
Age	18-24	277	18.1%	81.9%		*0.000*	
	25-34	468	29.5%	70.5%			
	35-44	590	36.4%	63.6%			
	45-54	497	31.4%	68.6%			
	55-64	255	31.4%	68.6%			
Marital Status	Never married	674	26.0%	74.0%	*0.001*		
	Married	1338	32.2%	67.8%			
	Divorced/separated/widowed	71	43.7%	56.3%			
Occupation	Managerial/professional worker	428	36.0%	64.0%	*0.007*		
	Clerk	310	32.9%	67.1%			
	Service worker	228	32.5%	67.5%			
	Blue collar worker	369	24.7%	75.3%			
	Not-working	714	29.0%	71.0%			
Monthly Household Income	Below $8,000	171	26.9%	73.1%		*0.015*	
	$8,000 - $13,999	362	29.0%	71.0%			
	$14,000 - $19,999	227	26.4%	73.6%			
	$20,000 - $39,999	540	33.3%	66.7%			
	$40,000 or above	334	36.2%	63.8%			

4.11 Oral health practice

4.11.1 Brushing teeth

Brushing teeth is associated significantly with gender, educational attainment and occupation.

Females claimed to brush teeth more often than males. 86.1% of females brush teeth twice a day compared to 72.0% of males. Less educated respondents and the blue collar workers were also less likely to brush teeth twice per day than their counterparts (Table 4.11.1).

Table 4.11.1: Frequency of brushing teeth (Q30)

Variable	Level	Base	Less than once per day	Once per day	Twice per day	3 times or more per day	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	0.1%	25.0%	72.0%	2.9%		*0.000*	
	Female	1095	0.0%	9.3%	86.1%	4.6%			
Educational Attainment	Primary or below	288	0.3%	23.3%	74.3%	2.1%			*0.000*
	Had not completed secondary	368	0.0%	22.8%	73.6%	3.5%			
	Completed secondary (F5)	681	0.0%	13.2%	83.3%	3.5%			
	Matriculation	163	0.0%	13.5%	81.6%	4.9%			
	Tertiary or above	588	0.0%	15.0%	80.4%	4.6%			
Occupation	Managerial/professional worker	427	0.0%	17.3%	79.2%	3.5%		*0.002*	
	Clerk	310	0.0%	10.0%	88.7%	1.3%			
	Service worker	229	0.0%	17.5%	79.9%	2.6%			
	Blue collar worker	369	0.3%	25.2%	70.5%	4.1%			
	Not-working	713	0.0%	15.3%	79.7%	5.0%			

4.11.2 Using dental floss

The practice of using dental floss was found to be associated significantly with gender, educational attainment, occupation and monthly household income.

On a daily basis, more females (22.3%) use dental floss once than males do (12.1%). Managerial/professional workers and clerks were more likely to do so than their counterparts. On the other hand, the higher the educational attainment and the monthly household income, the more likely that respondents use dental floss once a day (Table 4.11.2).

Table 4.11.2: Frequency of using dental floss (Q31)

Variable	Level	Base	Less than once per day or never	Once per day	Twice per day	3 times or more per day	p-value		
							Chi-square test	Kruskal-Wallis test	Rank correlation
Gender	Male	993	82.6%	12.1%	4.1%	1.2%		*0.000*	
	Female	1095	69.1%	22.3%	6.5%	2.1%			
Educational Attainment	Primary or below	289	87.9%	8.0%	3.5%	0.7%			*0.000*
	Had not completed secondary	368	85.3%	12.0%	1.9%	0.8%			
	Completed secondary (F5)	682	74.5%	17.0%	6.2%	2.3%			
	Matriculation	161	70.2%	19.3%	7.5%	3.1%			
	Tertiary or above	587	66.1%	25.6%	7.0%	1.4%			
Occupation	Managerial/professional worker	426	68.1%	21.6%	9.2%	1.2%		*0.000*	
	Clerk	310	71.0%	22.9%	4.5%	1.6%			
	Service worker	227	79.7%	12.8%	4.8%	2.6%			
	Blue collar worker	369	85.1%	10.8%	3.0%	1.1%			
	Not-working	712	76.0%	17.3%	4.9%	1.8%			
Monthly Household Income	Below $8,000	171	83.0%	8.8%	5.3%	2.9%			*0.000*
	$8,000 - $13,999	360	83.1%	12.2%	4.2%	0.6%			
	$14,000 - $19,999	228	72.8%	19.3%	6.1%	1.8%			
	$20,000 - $39,999	540	73.9%	19.8%	4.6%	1.7%			
	$40,000 or above	335	65.7%	24.5%	7.8%	2.1%			

4.12 Cervical screening

The responses of five cases were treated as outliers and excluded for analyses from section 4.12.2 to 4.12.5. Please refer to section 3.13 for the reasons of treating these responses as outliers.

4.12.1 Experience of cervical screening

Experience of cervical screening was found to be associated significantly with age, marital status, educational attainment and monthly household income.

Females aged 35-54 were more likely than females from other age groups to have had cervical screening before. 81.3% of females aged 35-44 had such screening before compared to only 10.1% of those aged 18-24 (Table 4.12.1).

Married (81.6%) and divorced/separated/widowed females (74.4%) were also more likely to have been screened than the never married females (21.2%) (Table 4.12.1).

Female respondents with monthly household income below $8,000 (58.3%) or those with matriculation level of education (48.9%) were less likely to have had cervical smear in comparison with their counterparts (Table 4.12.1).

Table 4.12.1: Being screened for cervical smear before (Q32a)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	138	10.1%	89.9%		*0.000*	
	25-34	257	57.6%	42.4%			
	35-44	321	81.3%	18.7%			
	45-54	251	77.7%	22.3%			
	55-64	120	67.5%	32.5%			
Marital Status	Never married	306	21.2%	78.8%	*0.000*		
	Married	738	81.6%	18.4%			
	Divorced/separated/widowed	43	74.4%	25.6%			
Educational Attainment	Primary or below	184	69.0%	31.0%		*0.000*	
	Had not completed secondary	176	75.6%	24.4%			
	Completed secondary (F5)	384	69.0%	31.0%			
	Matriculation	88	48.9%	51.1%			
	Tertiary or above	255	51.8%	48.2%			
Monthly Household Income	Below $8,000	103	58.3%	41.7%		*0.006*	
	$8,000 - $13,999	187	61.5%	38.5%			
	$14,000 - $19,999	120	70.8%	29.2%			
	$20,000 - $39,999	286	67.5%	32.5%			
	$40,000 or above	152	75.7%	24.3%			

4.12.2 Time since last cervical smear

The period since the female respondent's last cervical smear for those ever screened was found to be associated significantly with age, marital status and monthly household income.

Of those females who had a cervical smear before, most of the aged 25-34 (85.7%) had their last cervical smear taken within 2 years while only 57.9% of those aged 55-64 had it screened at most one year ago. The never married (80.3%) and married (73.5%) females were also more likely than the divorced/separate/widowed (44.8%) to have had their last cervical smear taken in less than 2 years time (Table 4.12.2).

Of those females who had a cervical smear before, those with monthly household income below $8,000 were most likely to have had their last cervical smear taken 4-5 or more years ago (Table 4.12.2).

Table 4.12.2: Period of time since last cervical smear (Q32b)

Variable	Level	Base	0-1 year ago	2-3 years ago	4-5 years or more ago	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	14	78.6%	21.4%	0.0%			*0.000*
	25-34	140	85.7%	10.7%	3.6%			
	35-44	253	71.1%	21.3%	7.5%			
	45-54	192	71.9%	20.8%	7.3%			
	55-64	76	57.9%	25.0%	17.1%			
Marital Status	Never married	61	80.3%	16.4%	3.3%		*0.001*	
	Married	584	73.5%	19.2%	7.4%			
	Divorced/separated/widowed	29	44.8%	31.0%	24.1%			
Monthly Household Income	Below $8,000	58	65.5%	17.2%	17.2%			*0.048*
	$8,000 - $13,999	112	68.8%	24.1%	7.1%			
	$14,000 - $19,999	84	67.9%	20.2%	11.9%			
	$20,000 - $39,999	189	78.8%	16.4%	4.8%			
	$40,000 or above	114	74.6%	16.7%	8.8%			

4.12.3 Only one cervical smear

Having had only one cervical screening is associated significantly with age and marital status.

Of those females who had a cervical smear before, younger females were more likely to have been screened once than the mid-aged females. The never married (39.7%) were also more likely to have been screened once than their counterparts (Table 4.12.3).

Table 4.12.3: Only one cervical screening (Q32c)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	14	57.1%	42.9%			
	25-34	145	32.4%	67.6%			
	35-44	257	11.7%	88.3%		*0.000*	
	45-54	192	8.9%	91.1%			
	55-64	81	22.2%	77.8%			
Marital Status	Never married	63	39.7%	60.3%			
	Married	592	15.4%	84.6%	*0.000*		
	Divorced/separated/widowed	32	9.4%	90.6%			

4.12.4 Regular screening

The habit of regular cervical screening was found to be associated significantly with marital status and educational attainment.

Of those females who had more than one cervical smear before, the married (79.5%) and the never married (71.1%) were more likely to have regular screening than the divorced/separated/widowed females (48.3%) (Table 4.12.4).

Of those females who had more than one cervical smear before, those with education level below secondary but above primary (69.5%) and those with matriculation level (69.2%) were less likely to have regular screening (Table 4.12.4).

Table 4.12.4: Regular cervical screening (Q32d)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Marital Status	Never married	38	71.1%	28.9%			
	Married	507	79.5%	20.5%	*0.000*		
	Divorced/separated/widowed	29	48.3%	51.7%			
Educational Attainment	Primary school or below	108	75.9%	24.1%			
	Had not completed secondary	105	69.5%	30.5%			
	Completed secondary (F5)	221	82.4%	17.6%		*0.047*	
	Matriculation	39	69.2%	30.8%			
	Tertiary or above		78.4%	21.6%			

4.12.5 Frequency of smear

The frequency of screening for those ever screened more than once was significantly

associated with age and educational attainment.

Among those who claimed to have regular cervical screening, the younger the females, the greater the chance of them being screened as regular as once or more a year. Females with better education were also more likely to have regular screening of once or more a year than those with lower educational attainment (Table 4.12.5).

Table 4.12.5: Frequency of cervical screening (Q32e)

Variable	Level	Base	Once or more a year	Once every 2-3 years	Once every 4-5 years	p-value		
						Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	5	80.0%	20.0%	0.0%			*0.003*
	25-34	82	78.0%	20.7%	1.2%			
	35-44	170	71.8%	27.6%	0.6%			
	45-54	135	63.7%	35.6%	0.7%			
	55-64	43	55.8%	41.9%	2.3%			
Educational Attainment	Primary or below	79	60.8%	39.2%	0.0%			*0.042*
	Had not completed secondary	70	65.7%	32.9%	1.4%			
	Completed secondary (F5)	179	71.5%	26.8%	1.7%			
	Matriculation	27	74.1%	25.9%	0.0%			
	Tertiary or above	80	72.5%	27.5%	0.0%			

4.12.6 Awareness of the cervical screening program

Female respondents' awareness of the cervical screening programme organized by the Department of Health was found to be associated significantly with age and educational attainment.

The younger females aged 18-24 (53.3%) were less likely to be aware of this programme in comparison with those aged 25 or above (about 70% were aware). Females with matriculation level of education or above (about 60%) were less likely to be aware of it than the less educated (about 70%) (Table 4.12.6).

Table 4.12.6: Awareness of the cervical screening programme organized by the Department of Health (Q33)

Variable	Level	Base	Yes	No	p-value		
					Chi-square test	Kruskal-Wallis test	Rank correlation
Age	18-24	135	53.3%	46.7%		*0.001*	
	25-34	256	67.2%	32.8%			
	35-44	318	70.4%	29.6%			
	45-54	249	69.9%	30.1%			
	55-64	122	70.5%	29.5%			

Educational Attainment	Primary or below	183	69.9%	30.1%		*0.002*	
	Had not completed secondary	174	70.1%	29.9%			
	Completed secondary (F5)	384	72.4%	27.6%			
	Matriculation	86	59.3%	40.7%			
	Tertiary or above	255	58.4%	41.6%			

Chapter 5 Conclusions and Recommendations

5.1 Conclusion

5.1.1 Body weight control

The results of this survey revealed that the weight status of two-thirds of respondents (68.1%) was classified as 'normal' under the WHO classification (European standard). However, many respondents did not view their own weight status in the same way that the WHO classification suggested. Of the respondents who felt they were 'overweight', only 35.1% of them were classified the same using the WHO classification. Of those who felt they were 'underweight', only 38.3% of them were classified as 'underweight' by the WHO criteria. Females, the middle aged respondents (35-54), the married, the divorced/separated/widowed, the less educated and the service workers were more likely to view themselves being 'overweight'.

Only 15.8% of all respondents found a weight difference by more than 10 pounds when compared with one year ago and more than half (58.8%) of them found an increase in weight. Less than one third of all respondents (27.7%) had done something to control their weight in the past year prior to the survey and 62.5% of these respondents aimed to lose weight. Doing physical exercise (80.7%) and changing dietary habit (74.7%) were most frequently mentioned by the respondents as the methods to control weight.

5.1.2 Physical exercise/activities

Walking was the most popular form of physical activity with three-quarters of all respondents (76.6%) walked every day for at least 10 minutes of the past week prior to the survey. In contrast, over half of all respondents did not spend even one day during the last week involved in moderate exercise (56.4%) or vigorous exercise (66.1%) for at least 10 minutes. Based on the categories of physical activity level defined by the IPAQ analysis guidelines, slightly over half of respondents (56.5%) were found to be 'minimally active', one-fifth (20.5%) was regarded as 'inactive' and the rest (23.0%) was found being 'HEPA active'. Better educated respondents, clerks, managerial/professional workers and those with higher monthly household income were more likely to be 'inactive'. On the other hand, respondents spent an average of 6.2 hours on sitting per day during weekdays (Monday to Fridday) in the past week prior to the survey.

5.1.3 Dietary habits

In general, vegetables appear to be more frequently consumed than fruit. Most respondents (84.0%) eat vegetables everyday while only 55.7% of respondents eat fruit everyday. In terms of portions eaten on average, respondents eat one portion of fruit and 1.1 bowls of vegetables per day. Only slightly less than one fifth of respondents (17.7%) consumed the optimal portion of fruit and vegetables as WHO recommended, i.e. 5 or more servings of fruit and vegetables per day for adults. Respondents aged 18-24, the never married, clerks, service workers and blue collar workers were less likely to do so.

5.1.4 Consumption behavioural of certain selected high-risk food items

Siu mei (86.6%) was far more prevalently consumed by respondents in the past 3 months prior to the survey than the other high-risk food items, followed by sashimi/raw fish (44.3%) and salad (43.9%). Furthermore, respondents who were more likely to consume the high risk food items including sashimi/raw fish, salad, undercooked eggs and raw oysters tended to be better educated respondents, those with higher monthly household income and younger.

5.1.5 Food handling practices

Most respondents comply well with the food handling practices questioned. 'Washing all food thoroughly before cooking, especially seafood' (82.5% mentioned 'all of the time') was most frequently complied with while 'keeping raw and cooked food separately' (68.2% claimed 'all of the time') was less frequently conformed with.

5.1.6 Pattern of alcohol consumption

Less than half of all respondents (42.7%) were drinkers who had drunk at least one alcoholic drink during the previous month prior to the survey. Heavy drinkers who drank at least 5 glasses/cans of alcohol on one single occasion during past month prior to the survey tended to be males, the youngest respondents aged 18-24, blue collar workers and service workers. According to the British Alcohol Guidelines, three-quarters of these drinkers (74.7%) had their drinking habit within a safe level. Males, less educated respondents and blue collar workers were more likely to have drinking habits exceeding safe levels than their counterparts.

5.1.7 Smoking habits

Current smokers represented less than one-fifth of the sample (16.7%) and over half of them (52.5%) were heavy smokers who smoked at least eleven cigarettes or more each day. These heavy smokers were more likely to be male, those aged 45-54, the divorced/separated/widowed, the less educated, blue collar workers and those with monthly household income below $8,000.

5.1.8 Pedestrian and driver road safety behaviour

Approximately one-fifth of all respondents (23.5%) were drivers in the past 12 months prior to the survey. Although nearly two-thirds of all drivers (63.9%) in our sample had broken the speed limit by more than 15km per hour in varying frequency, the majority of all drivers (92.7%) did not drive within two hour period after their last drink. The results also revealed that males and younger drivers were more likely to break the speed limit. On the other hand, two-thirds of all respondents (69.0%) conformed *'all of the time'* to the use of a seat-belt as a passenger where it is mandatory or available. However, many pedestrians (69.8%) admitted to crossing the road whilst ignoring traffic instructions to the contrary *'some of the time'*.

5.1.9 Traditional Chinese Medicine consultation behaviour

Approximately one third of all respondents (30.7%) consulted a Traditional Chinese Medicine Practitioner (TCMP) in the past 12 months prior to the survey and slightly more than half of them (56.8%) did not consult a western doctor before their visit to the TCMP during last consultation. The most frequently mentioned reason for consulting a TCMP during the last consultation was respiratory symptoms/fever/flu (33.1%). Respondents who were more likely to consult a TCMP in the past 12 months prior to the survey tended to be female, aged 35-44, divorced/separated/widowed, managerial/professional workers and those with higher monthly household income.

5.1.10 Stress management

Exercise (18.9%), listening to music (12.7%) and taking more rest/sleep (11.5%) were the most common methods used by respondents to cope with stress.

5.1.11 Oral health practices

As for oral health practice, most respondents (83.2%) brush their teeth twice or more per day. However, the use of dental floss appears to be less popular as almost two-thirds of respondents (65.5%) have never used it. These respondents never using it were more likely to be males, less educated, blue collar workers and those with lower monthly household income.

5.1.12 Cervical screening

Nearly two-thirds of female respondents (63.9%) had been screened for cervical smear before. Among these female respondents whose last cervical smear visit was not their first time, 77.2% have a habit of regular cervical screening. Approximately two-thirds of all female respondents (66.5%) were well aware of the cervical screening program organized by the Department of Health. Television (72.8%) is the most effective channel through which the female respondents heard of this program.

5.2 Recommendation

Some recommendations based on the survey findings are suggested below:

1. Many respondents perceived their weight status in a different way from the WHO classification. More education should be given to the general public on the correct concept of assessing body weight status. This includes promoting the methods of assessing weight status such as the Body Mass Index computation formula.

2. The intake of fruit and vegetables should be further encouraged. Only 17.7% of our respondents met the WHO recommendation of eating 5 or more servings of fruit and vegetables per day. Campaigns should be organized to promote the benefits of eating fruit and vegetables. The optimal portion of intake considered health beneficial should also be promoted. This should particularly target people aged

18-24, never married, clerks, service workers and blue collar workers who were less likely to consume the recommended portion of fruit and vegetables.

3. The road safety behaviour of drivers should be further enhanced. The findings revealed that nearly two thirds of all drivers (63.9%) in our sample break the speed limit by more than 15km per hour in varying frequency, especially male and younger drivers. More education about road safety should be given to these groups of drivers.

4. According to the analysis of the IPAQ short form guideline, 23.0% of respondents were classified as 'HEPA active', 56.5% were 'minimally active' and 20.5% were found 'inactive'. Therefore, the engagement of the general public in physical activities/exercise should be further sustained. Benefits of exercise and the optimal duration and mode of exercise should be promoted. Those who were found to be 'inactive' were more likely to be tertiary educated or above, managerial/professional workers, clerks and those with higher monthly household income. Their reasons of lacking exercise should be investigated in order to encourage them to do more physical activities.

5. About a quarter of drinkers (25.3%) had their drinking habit exceeding safe levels according to the British Alcohol Guidelines. Promotion of safe drinking habit should be particularly targeted at males, people with secondary education or below, service workers and blue collar workers since all of them were more likely to have a less safe drinking habit.

It is very important to understand why the sub-group of respondents behaves significantly different on some of the areas. There might be factors that constrain certain group of people from having a healthier behaviour. For example, some people were lacking exercise due to their long working hours. Therefore, the health promotion programs should take such underlying factors into account and formulate strategic plans to enhance the habits of certain groups of people on the relevant areas that need to be improved. For example, walking can be turning into a health-beneficial exercise for those busy people by advising them to walk for an optimal duration of time every day. On the other hand, the promotional materials such as educational guidelines, leaflets and pamphlets should also be easily accessible at the places where the target group of people will be visiting frequently.

5.3 Limitations

1. Although weighting has been adopted to adjust the age-sex distribution differences between our survey and the population, the weighting method does not address the problem of unequal selection probability such as different number of telephone numbers per household, different number of eligible respondents per household as well as the problem of non-response.

2. The use of the 'Next Birthday' rule to select respondent when there were more than one eligible respondents resided in a house by the time of telephone contact cannot cover people who were always not at home after 3 attempts.

3. The coverage of a household telephone survey may not include all households in the random selection process and lead to a non-contact bias. However, domestic telephone coverage in Hong Kong is already greater than 99.0%, so this effect should be small.

4. One issue of telephone interview is that the information provided by the respondents cannot be verified. The respondents may deliberately give socially desirable answers during interview.

5. This is a cross-sectional study. The causal or time relationship between various factors cannot be identified.

Appendix A Survey Questionnaire

Introduction:

Hello! My name is _____, calling from the Social Sciences Research Centre of the University of Hong Kong (SSRC). We are commissioned by the Department of Health to conduct a public survey on healthy living. Would you mind sparing some time to answer a few questions? All the information provided by you will be kept strictly confidential and for collective analysis only. If you have any queries on this survey, you can call the SSRC at phone number: 2857 8333 during office hours between 9 am and 6 pm.

Respondent selection

Because we are choosing a respondent randomly, please tell me how many household members aged 18-64 years there are at home?
_____[Key in number]

Please ask the one who will next have a birthday to answer the phone.

1. Yes
2. No (skip to end)

A. Body Weight Control

Because the Department of Health wishes to gauge the height and weight of Hong Kong people, please provide the figures as accurate as possible in the following questions.

Q1. What are your height, weight and waist circumference?
(convert the measurement scale as needed) (If the respondent refuses to report his/her height/weight/waist circumference, input '999' as the missing value.)

a. Height (without wearing shoes): _____cm
b. Weight (wearing simple clothes): _____Kg
c. Waist circumference: _____cm

Q2a. Does your weight now differ by more than 10 pounds (about 4.5 Kgs) from your weight one year ago?
1. Yes
2. No (skip to Q3)
3. Don't know (skip to Q3)

Q2b. Did it increase or decrease?
1. Increase
2. Decrease

Q3. What do you think about your current weight?（read out the answers one by one）
1. Overweight
2. Just right
3. Underweight

Q4a. During the past 12 months, did you try to do something deliberately to control your weight? (i.e. for increasing weight, decreasing weight or maintaining weight.)
1. Yes
2. No (skip to Q6)

Q4b. Is it for increasing weight, losing weight or maintaining weight?
1. Losing weight
2. Increasing weight
3. Maintaining weight

Q5a. What methods have you used to control your weight? (Multiple codes)
1. Taking the drugs/products(including health food) for controlling weight
   Yes No
2. Consulting doctors/dieticians
3. Going to weight control/beauty parlours
4. Doing physical exercises
5. Changing dietary habit
6. Others (Please specify: _____）

Q5b. How long have you been? (read out the activities that had been carried out)
(Multiple questions (up to 5) for each choice in Q5a) (please use the following scale)
1. 1-6 days
2. 1-3 weeks
3. 1 month
4. 2-3 months
5. 4-5 months
6. 6-9 months
7. 10-12 months
8. 13 months or above

i. taking the drugs/products for controlling weight
ii. consulting doctors/dieticians
iii. going to weight control/beauty parlours
iv. doing physical exercises/fitness centres
v. changing dietary habit
vi. Others (Please specify: _____）

B. Physical exercises/activities

In the following few questions, I am going to ask you about the time you spent on vigorous physical activities, moderate physical activities and walking in the last 7 days. These activities can be carried out in your work place, your home or in your leisure time.

Q6. During the last 7 days, on how many days did you do vigorous physical activities? Vigorous activities are those that make you breathe much harder than normal, e.g., aerobics, football, swimming, heavy physical work, jogging, etc., and you did these activities for at least 10 minutes at a time.

Days_____

Q7. Ask those whose answers in Q6 are greater than or equal to "1"
How much time on average per day did you usually spend on doing vigorous physical activities? Think about only those physical activities that you did for at least 10 minutes at a time.

Minutes_____

Q8. During the last 7 days, on how many days did you do moderate physical activities? Moderate physical activities are those that make you breathe somewhat harder than normal, e.g., bicycling, washing cars/polishing, fast walking, cleaning windows, etc. and you did these activities for at least 10 minutes at a time.

Days_____

Q9. Ask those whose answers in Q8 are greater than or equal to "1"
How much time on average per day did you usually spend on doing moderate physical activities? Think about only those physical activities that you did for at least 10 minutes at a time.

Minutes_____

Q10. During the last 7 days, on how many days did you walk for at least 10 minutes at a time? This includes walking to offices/schools, walking to travel from place to place, and walking for leisure.

Days_____

Q11. Ask those whose answers in Q10 are greater than or equal to "1"
How much time on average did you usually spent on walking one of those days on walking?

Hours_____ Minutes_____

Q12. During the last 7 days, how much time on average did you usually spend on sitting on a weekday? This includes time spent sitting at work, at home, visiting friends, reading, travelling on public transport, and lying down to watch television. [If the respondent cannot answer the daily average time, then say:]Please try to make an estimate as accurate as possible.

Hours_____ Minutes_____

C. Dietary Habits

Q13a.On average, how many days do you eat fruit each week? (not including fruit juice)

1. 1 day
2. 2 days
3. 3 days
4. 4 days
5. 5 days
6. 6 days
7. 7 days
8. None (skip to Q14a)

Q13b.Ask those who eat fruits

How many fruits, on average, did you eat on one of those days? (ask exactly what they ate and then convert using table) (the numbers can be recorded as half such as 0.5 or 1.5) (interviewer's prompts on portion of fruits: One fruit equals to 1 medium sized apple or orange, 1 banana, or two apricot or plum, or one bowel of small fruits like grapes or strawberries).

Q14a. On average, how many days do you eat vegetables each week?

1. 1 day
2. 2 days
3. 3 days
4. 4 days
5. 5 days
6. 6 days
7. 7 days
8. None (skip to Q15)

Q14b. Ask those who eat vegetables (Q14a<8)

How many bowls of vegetables, on average, did you eat on one of those days? (ask exactly what they ate and then convert using table) (the numbers can be recorded as half such as 0.5 or 1.5) (Interviewer's prompts: one bowl refers to the size of a rice bowl).

D. Consumption behaviour of certain selected high-risk food items

Q15. In the last 3 months, how often on average do you eat the following foods at home and outside?

1. More than 1 time per day
2. 1 time per day
3. 6 times per week
4. 5 times per week
5. 4 times per week
6. 3 times per week
7. 2 times per week
8. 1 time per week
9. 3 times per month

10. 2 times per month
11. 1 time per month
12. 1 time per 2 months
13. 1 time per 3 months
14. No consumption in the past 3 months
15. Don't remember

a. raw oysters
b. raw/undercooked prawns, crabs and other shellfish like scallops, mussels etc
c. sashimi/raw fish
d. soft-boiled, loosely scrambled or running eggs(including sun egg)
e. siu mei
f. salad
g. Cut fruit that is prepared by vendor before sale

E. Food Handling practices

Q16. How often do you wash all food thoroughly before cooking, especially seafood?

1. All of the time
2. Most of the time
3. Some of the time
4. None of the time
5. N/A as do not cook food

Q17. How often do you keep raw and cooked food separately?

1. All of the time
2. Most of the time
3. Some of the time
4. None of the time
5. N/A as do not handle food

Q18. How often do you cook /reheat food thoroughly, including seafood?

1. All of the time
2. Most of the time
3. Some of the time
4. None of the time
5. N/A as do not prepare food

Q19. How often do you wash your hands before handling food?

1. All of the time
2. Most of the time
3. Some of the time
4. None of the time
5. N/A as do not handle food

F. Pattern of Alcohol Consumption

Q20a. During the last month, had you had at least one alcoholic drink?

1. Yes
2. No (skip to Q21)

Q20b. On how many days per week during the last month, on average, do you drink at least one alcoholic drink?

1. Daily
2. 6 days per week
3. 5 days per week
4. 4 days per week
5. 3 days per week
6. 2 days per week
7. 1 day per week
8. Less than 1 day per week

Q20c. How many standard drinks on average did you drink on those days? (Read out the types of standard drink) (A can or small bottle of beer is approximately equal to 1.5 standard drinks. Or 1 standard drink is approximately equal to one dinning glass of wine, or 1 spirit nip of brandy/whisky, or one small glass of Chinese wine such as rice wine) (a can/ small bottle of beer approximately equals to about 330 – 375 mls. Be aware, a big bottle can range from 640 mls (most brands) to 960 mls (Blue Ribbon)).

[Interviewer please refer to the standard drink information sheet- the illustrated guide to typical standard drinks- for other examples if needed]

[Key in number]

Q20d. In the last month, did you drink at least 5 glasses or cans of alcohol on one occasion? That means the total number of glasses and cans of any type of alcohol, and one occasion means period of a few hours.

1. Yes
2. No (skip to 21)

Q20e. How many times did you do this in the last month?

1. Once
2. Twice
3. Three times or more

G. Smoking Habits

Q21a. Have you smoked before?

1. Yes, but not now
2. Yes, and still smoking (skip to Q21c)
3. Never (skip to Q22)

Q21b. How long have you abstained from smoking?

1. Smoked before and had abstained for less than 1 month (skip to Q22a)
2. Smoked before and had abstained for between 1 month and l year (skip to Q22a)
3. Smoked before and had abstained for more than l year (skip to Q22a)

Q21c. How many cigarettes do you smoke on average per day?

1. less than 1 cigarette per day now
2. 1-10 cigarettes per day now
3. 11-20 cigarettes per day now
4. more than 20 cigarettes per day now

H. Pedestrian and driver road safety behaviour

Q22a. Have you driven a vehicle in the last 12 months?

1. Yes
2. No (skip to 23)

Q22b.How often do you break speed limit by 15km/hr? (Interviewers please clarify "kilometers" or "miles" if necessary)

1. All of the time
2. Most of the time
3. Some of the time
4. None of the time

Q22c. In the past month, how many times had you driven a vehicle/car within 2 hours after drinking alcoholic beverages?

_____[Key in number]

Q23. As a passenger, how often do you use seat-belt where it is mandatory and available, such as in private car, taxi, or public light bus?

1. All of the time
2. Most of the time
3. Some of the time
4. None of the time
5. N/A as do not use a vehicle/car

Q24. How often do you jay-walk, including ignore traffic light instructions, not using zebra-crossing or footbridge when they are available?

1. All of the time
2. Most of the time
3. Some of the time
4. None of the time
5. N/A as do not cross roads

I. Traditional Chinese Medicine consultation bahaviours

Q25a. In the past 12 months, did you consult Traditional Chinese Medicine Practitioners (TCMP), such as herbalists, acupuncturists, bone-setters etc?

1. Yes (skip to Q26)
2. No (skip to Q29)

Q26. When was the last time you visited a herbalist?

1. 1 - 3 month ago
2. 4 - 6 month ago
3. 7 - 9 month ago
4. 10 -12 month ago

Q27. Did you consult a western doctor for the problem before the visit to the herbalist?

1. Yes
2. No

Q28. What was the main reason of consultation? (no prompt, select one only)

1. Fever
2. Respiratory symptoms
3. Gastro symptoms
4. Skin problems
5. Injury and musculoskeletal pain
6. Diabetes
7. Heart diseases
8. Any type of cancer
9. Other, please specify_____

J. Stress management

Q29. What is your most frequently adopted stress coping mechanism? (no prompt, one answer only)

1. Exercise
2. More rest/sleep
3. Talking to somebody
4. Smoking
5. Drinking
6. Eating
7. Shopping or leisure activities
8. Reading
9. Listening to music
10. Attend stress management class
11. Others (please specify:_____)
12. N/A as no stress

K. Oral health practices

Q30. How many times a day do you brush your teeth?

[1=1 time per day; 2=2 times per day; 3=3 times per day; 4= more than 3 times per day; 5 = less than 1 per day; 6=never] [98= no teeth, 99=don't remember]

Q31. How many times a day do you use dental floss?

[1=1 time per day; 2=2 times per day; 3=3 times per day; 4= more than 3 times per day; 5 = less than 1 per day; 6=never] [98=no teeth, 99=don't remember]

L. Cervical Screening (Ask female respondents only)

Q32a. Have you had a cervical smear before?
1. Yes
2. No (skip to Q33)
3. Not sure (skip to Q33)

Q32b. If yes, when did you have the last cervical smear?
1. 0-11 months ago
2. 1 year ago
3. 2 years ago
4. 3 years ago
5. 4 years ago
6. 5 or more years ago
7. Cannot remember

Q32c. Was it your first cervical smear?
1. Yes, first smear (skip to Q33)
2. No, repeated smear
3. Not sure

Q32d. Do you have your cervical smear at a regular interval?
1. Yes, at a regular interval
2. No, not at a regular interval (skip to Q32f)

Q32e. If regular, how often do you have cervical smear? (skip to Q33)
1. More than once a year
2. Once a year
3. Once every 2 years
4. Once every 3 years
5. Once every 4 years
6. Once every 5 years
7. Once every 6-10 years
8. Less frequent than once every 10 years
9. Cannot say/remember

Q32f. If not regular, was the longest interval between two cervical smears more than 3 years apart?
1. Yes
2. No
3. Can't remember

Q33. Have you ever heard about the Cervical Screening Programme organized by the Department of Health?
1. Yes
2. No (skip to Q35)
3. Not sure (skip to Q35)

Q34. If yes, from which source? (multiple answers allowed)

1. TV
2. Roadshow on the bus
3. Radio
4. Newspaper
5. Magazine
6. Posters in transportation: MTR
7. Posters in transportation: KCR
8. Posters in transportation: Bus stops
9. Pamphlet
10. Clinics/MCHC
11. Health talk
12. Internet including CSP website
13. Invitation letter
14. Friend and relative
15. Others, please specify:_____

M. Personal Information

Q35. Record the gender

1. Male
2. Female

Q36. What is your age?

_____ years old

Q37. What is your highest educational attainment?

1. Primary or below
2. Had not completed secondary
3. Completed secondary (F5)
4. Matriculation
5. Tertiary or above

Q38. What is your marital status?

1. Never married
2. Married and with child (ren)
3. Married and without child (ren)
4. Divorced/Separated
5. Widowed
6. Refuse to answer

Q39. Are you currently engaged in a job?

1. Yes
2. No (skip to Q41)

Q40. What is your occupation? (All skip to Q42)

1. Employers/Managers/Administrator
2. Professional

3. Associate Professional
4. Clerk
5. Service worker
6. Shop sales worker
7. Skilled agricultural/fishery worker
8. Craft and related worker
9. Plant and machine operator and assembler
10. Un-skilled worker

Q41. Are you a ……..? (All skip to Q43)

1. Student
2. Home-maker
3. Unemployed person
4. Retired person
5. Others（Please specify）: _____

Q42.How much is your monthly personal income including all the income?

1. None
2. $1-1,999
3. $2,000-3,999
4. $4,000-5,999
5. $6,000-7,999
6. $8,000-9,999
7. $10,000-11,999
8. $12,000-13,999
9. $14,000-15,999
10. $16,000-17,999
11. $18,000-19,999
12. $20,000-24,999
13. $25,000-29,999
14. $30,000-34,999
15. $35,000-39,999
16. $40,000-44,999
17. $45,000-49,999
18. $50,000 or above
19. Refuse to answer

Q43.How much is your monthly household income including all the income?

1. Less than $2,000
2. $2,000-3,999
3. $4,000-5,999
4. $6,000-7,999
5. $8,000-9,999
6. $10,000-11,999
7. $12,000-13,999
8. $14,000-15,999
9. $16,000-17,999
10. $18,000-19,999

11. $20,000-24,999
12. $25,000-29,999
13. $30,000-34,999
14. $35,000-39,999
15. $40,000-44,999
16. $45,000-49,999
17. $50,000-54,999
18. $55,000-59,999
19. $60,000 or above
20. Refuse to answer

The END: The survey has come to the end. Thank you for your participation. Goodbye!

Appendix B Guidelines for Data Processing and Analysis of the International Physical Activity Questionnaire (IPAQ) - Short Form

Version 2.0. April 2004

Introduction

This document provides an revision to the outline for scoring the short form of the International Physical Activity Questionnaire (IPAQ) . This is available on the website www.ipaq.ki.se.

There are many different ways to analyse physical activity data, but to-date there is no consensus on a ”correct‘ method for defining or describing levels of activity based on selfœreport surveys. The use of different scoring protocols makes it very difficult to compare within and between countries, even when the same instrument has been used.

IPAQ is an instrument designed primarily for population surveillance of adults. It has been developed and tested for use in adults (age range of 15-69 years) and until further development and testing is undertaken the use of IPAQ with older and younger age groups is not recommended. IPAQ is being used also as an evaluation tool in some intervention studies, but the range of domains and types of activities included in IPAQ should be carefully noted before using it in this context.

This document describes the *April 2004 revision* to the IPAQ short scoring protocol[1]. These revisions are have been suggested by the IPAQ scientific group, to examine variation among countries in more detail[2]. Given the broad range of domains of physical activity asked in IPAQ, new cutpoints need to be trialed and developed to express physical activity in the population. These cutpoints are preliminary, in the sense that they are not yet supported by epidemiological studies, which have typically used Leisure time physical activity (LTPA) to examine benefits or risks of being active. Hence, “30 minutes of moderate intensity PA on most days of the week” was evidence-based, using the estimates of risk (reduction) from these LTPA measures in numerous epidemiological studies.

A new set of suggested cutpoints is based on work in the area of total physical activity, specifically total walking, where recommendations of at least 10,000 steps, and possibly 12,500 steps per day are considered ”high active‘ (Tudor Locke reference). This equates to at least 2 hours of all forms of walking per day, which includes all settings and domains of activity, and could be a population goal for total HEPA (health-enhancing physical activity). With this background, new cutpoints are proposed for expressing physical activity levels in populations using generic physical activity measures such as IPAQ[3].

1 The first version of an IPAQ scoring protocol was in August 2003; this is a revised version, April 2004. This revised version does not
change the continuous forms of reporting data, but does suggest a new category for describing the most active groups in populations.
The changes from the August 2003 scoring protocol are indicated in this document.
2 Previous scoring algorithms returned high prevalence rates with limited variation among countries; hence a higher cutpoint is sought,
as the IPAQ instrument measures total PA, including LTPA as well as incidental, occupational and transport related PA all in one
question. This results in much higher prevalence estimates than measures of LTPA alone.
3 This results in changes to the categories used for levels of activity, and to the truncation rules [as greater than two hours per day may
be required as usable data for walking and other physical activity behaviors].

Characteristics of the IPAQ short-form instrument:

1) IPAQ assesses physical activity undertaken across a comprehensive set of domains including leisure time, domestic and gardening (yard) activities, work-related and transport-related activity;

2) The IPAQ short form asks about three specific types of activity undertaken in the three domains introduced above and sitting. The specific types of activity that are assessed are walking, moderate-intensity activities and vigorous intensity activities; frequency (measured in days per week) and duration (time per day) are collected separately for each specific type of activity.

3) The items were structured to provide separate scores on walking; moderate-intensity; and vigorous-intensity activity as well as a combined total score to describe overall level of activity. Computation of the total score requires summation of the duration (in minutes) and frequency (days) of walking, moderate-intensity and vigorous-intensity activity;

4) Another measure of volume of activity can be computed by weighting each type of activity by its energy requirements defined in METS (METs are multiples of the resting metabolic rate) to yield a score in METœminutes. A MET-minute is computed by multiplying the MET score by the minutes performed. MET-minute scores are equivalent to kilocalories for a 60 kilogram person. Kilocalories may be computed from MET-minutes using the following equation: MET-min x (weight in kilograms/60 kilograms). The selected MET values were derived from work undertaken during the IPAQ Reliability Study undertaken in 2000-2001. Using the Ainsworth et al. Compendium (*Med Sci Sports Med* 2000) an average MET score was derived for each type of activity. For example; all types of walking were included and an average MET value for walking was created. The same procedure was undertaken for moderate-intensity activities and vigorous-intensity activities. These following values continue to be used for the analysis of IPAQ data: Walking = 3.3 METs, Moderate PA = 4.0 METs and Vigorous PA = 8.0 METs[4].

Analysis of IPAQ

Both categorical and continuous indicators of physical activity are possible from the IPAQ short form. However, given the non-normal distribution of energy expenditure in many populations, the continuous indicator is presented as median minutes or median METœminutes rather than mean minutes or mean MET-minutes.

Categorical score

Regular participation is a key concept included in current public health guidelines for physical activity.[5] Therefore, both the total volume and the number of day/sessions are included in the IPAQ analysis algorithms. There are three levels of physical activity suggested for classifying populations;

4 Note that there is still some debate about whether 8 Mets for vigorous is sustainable, in occupational settings for several hours; we have no data on this, but it is likely to be less than that, maybe 7 METs or even less; however, for the moment, we suggest keeping with the compendium value of * METs.

5 Pate RR, Pratt M, Blair SN, Haskell WL , Macera CA, Bouchard C et al. Physical activity and public health. A recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. Journal of Amercian Medical Association 1995; 273(5):402-7. and U.S.Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, The Presidents' Council on Physical Fitness and Sports: Atlanta, GA:USA. 1996.

these are the new proposed levels, which take account of the concept of total physical activity of all domains. The proposed levels are:
[i] ”inactive
[ii] ”minimally active‘[6]
[iii] ”HEPA active‘ (health enhancing physical activity; a high active category).

The criteria for these three levels are shown below.

1. Inactive (CATEGORY 1)

This is the lowest level of physical activity. Those individuals who not meet criteria for Categories 2 or 3 are considered ”**insufficiently active’** [CATEGORY 1].

2. Minimally Active (CATEGORY 2)

The minimum pattern of activity to be classified as ”sufficiently active‘ is any one of the following 3 criteria:

a) 3 or more days of vigorous activity of at least 20 minutes per day **OR**
b) 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day **OR**
c) 5 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 600 MET-min/week.

Individuals meeting at least one of the above criteria would be defined as achieving the minimum recommended to be considered ”**minimally active’** [CATEGORY 2]. This category is more than the minimum level of activity recommended for adults in current public health recommendations, but is not enough for —total PA“ when all domains are considered. IPAQ measures total physical activity whereas the recommendations are based on activity (usually leisure-time or recreational) over and above usual daily activities.

3. HEPA active (CATEGORY 3)

A separate category labeled ”**HEPA’** level, which is a more active category [CATEGORY 3] can be computed for people who exceed the minimum public health physical activity recommendations, and are accumulating enough activity for a healthy lifestyle. This is a useful indicator because it is known that higher levels of participation can provide greater health benefits, although there is no consensus on the exact amount of activity for maximal benefit. Also, in considering lifestyle physical activity, this is a total volume of being active which reflects a healthy lifestyle. It is at least
1.5 œ 2 hours of ”being active‘ throughout the day, which is more than the LTPA-based recommendations of 30 minutes[7].

In the absence of any established criteria, the IPAQ scientific group proposes this new cutpoint, which equates to approximately at least 1.5 -2 hours of total activity per day, of at least moderate-intensity activity. It is desirable to have a ”HEPA‘ activity category, because in some populations, a large proportion of the population may be classified as —minimally active‘ because the IPAQ instrument assess all domains of activity. Category 3 sets a higher threshold of activity and provides a useful mechanism to distinguish variation in sub-population groups.

6 “Minimally active” implies some physical activity but is not an optimal level of total HEPA.[7] As Tudor-Locke and others have indicated, there is a basal level of around 1 hour of activity just in activity of daily living, and an additional 0.5 – 1 hour of LTPA makes a healthy lifestyle amount of total PA – hence, these new cutpoints are still consistent with the general LTPA based public health recommendations of at least half an hour per day of additional activity or exercise.

The two criteria for classification as "HEPA active' are:

a) vigorous-intensity activity on at least 3 days achieving a minimum of at least 1500 MET-minutes/week **OR**

b) 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 3000 MET-minutes/week[8]

Continuous score

Data collected with IPAQ can be reported as a continuous measure and reported as median MET-minutes. Median values can be computed for walking (W), moderate-intensity activities (M), and vigorous-intensity activities (V) using the following formulas:

MET values and Formula for computation of Met-minutes

Walking MET-minutes/week = 3.3 * walking minutes * walking "days'
Moderate MET-minutes/week = 4.0 * moderate-intensity activity minutes * moderate days
Vigorous MET-minutes/week = 8.0 * vigorous-intensity activity minutes * vigorous-intensity days

A combined total physical activity MET-min/week can be computed as the sum of Walking + Moderate + Vigorous MET-min/week scores.

The MET values used in the above formula were derived from the IPAQ validity and reliability study undertaken in 2000-2001[9]. A brief summary of the method is provided above (see page 1).

As there are no established thresholds for presenting MET-minutes, the IPAQ Research Committee proposes that these data are reported as comparisons of median values and interquartile ranges for different populations.

IPAQ Sitting Question

The IPAQ sitting question is an additional indicator variable and is not included as part of any summary score of physical activity. Data on sitting should be reported as median values and interquartile range. To-date there are few data on sedentary (sitting) behaviors and no well-accepted thresholds for data presented as categorical levels.

Data Processing Rules

In addition to a standardized approach to computing categorical and continuous measures of physical activity, it is necessary to undertake standard methods for the cleaning and treatment of IPAQ datasets. The use of different approaches and rules would introduce variability and reduce the comparability of data.

There are no established rules for data cleaning and processing on physical activity. Thus, to allow more accurate comparisons across studies IPAQ has established and recommends the following guidelines:

1. Data cleaning

- time should be converted from hours and minutes into minutes

8 Note: this replaces the previous IPAQ short form cutpoint of 1500 mets.mins/ week

9 Craig *CL,Marshall A , Sjostrom M* et al. International Physical Activity Questionnaire: 12 country reliability and validity Med Sci Sports Exerc 2003;August.

. • ensure that responses in ”minutes‘ were not entered in the ”hours‘ column by mistake during self-completion or during data entry process, values of ”15‘, ”30‘, ”45‘, ”60‘ and ”90‘ in the ”hours‘ column should be converted to ”15‘, ”30‘, ”45‘, ”60‘ and ”90‘ minutes, respectively, in the minutes column.

. • time should be converted to daily time [usually is reported as daily time, but a few cases will be reported as optional weekly time œ eg. VWHRS, VWMINS œ convert to daily time]

. • convert time to mets-mins [see above; days x daily time]

. • must have the number of days for the day variables; for the ”time‘ variables, either daily or weekly time is needed œ if ”don‘t know‘ or ”refused ” or data are missing in walking, moderate or vigorous days or minutes, then that case is removed from analysis

2. Maximum Values for excluding outliers

This rule is to exclude data which are unreasonably high; these data are to be considered outliers and thus are excluded from analysis. All Walking, Moderate and Vigorous time variables which total at least or greater than ”16 hours‘ should be excluded from the analysis. The ”days‘ variables can take the range 0-7 days, or 8,9 (don‘t know or refused); values greater than 9 should not be allowed and those data excluded from analysis.

3. Truncation ofdata rules

This rule is concerned with data truncation and attempts to normalize the distribution of levels of activity which are usually skewed in national or large population data sets. It is recommended that all Walking, Moderate and Vigorous time variables exceeding ” 4 hours‘ or ”240 minutes‘ are truncated (that is re-coded) to be equal to ”240 minutes‘ in a new variable[10]. This rule permits a maximum of 28 hours of activity in a week to be reported for each category of physical activity.

This rule requires further testing, but is an initial manner proposed for classifying these population data.

When analysing IPAQ data and presenting the results in categorical variables, this rule has the important effect of preventing misclassification in the ”high active‘ category. For example, an individual who reports walking for 2.5 hours every day and nothing else would be classified as ”HEPA active‘ (reaching the threshold of 7 days, and ⩾ 3000 MET.mins. Similarly, someone who reported walking for 90 minutes on 5 days, and 4 hours (240 mins) of moderate activity on another day and 70 minutes of vigorous activity on another day, would also be coded as ”HEPA active‘ because this pattern meets the ”7 day“ and —3000 MET-min“ criteria for ”HEPA active‘.

4. Minimum Values for Duration of Activity

Only values of 10 or more minutes of activity will be included in the calculation of summary scores. The rationale being that the scientific evidence indicates that episodes or bouts of at least 10 minutes are required to achieve health benefits. Responses of less than 10 minutes [and their associated days] should be re-coded to ”zero‘.

Summary of Data Processing Rules 1- 4 above

Data management rules 2, 3, and 4 deal with first excluding outlier data, then secondly, recoding high values to ”4 hours‘, and finally describing minimum amounts of activity to be included in analyses.

10 Note that this is a different truncation rule to the earlier scoring protocol; we have previously used 2 hours as a truncation point for LTPA measures. This higher truncation point is proposed in order to allow people who walk for 2.5 hours per day and do nothing else to be categorized as ‘HEPA’ active; if data were truncated, these individuals would be recoded to 2 hours per day, and over 7 days, total 2772 MET.mins, due to the truncation rule. The new truncation rule allows 2.5 hours to be counted in full. The initial purpose of truncation was to normalize the distributions, and was based on expert judgments. It is now suggested that 4 hours / day be proposed as a truncation threshold for more inclusive ‘lifestyle PA measures’ such as IPAQ.

These rules will ensure that highly active people remain highly active, while decreasing the chances that less active individuals are coded as highly active.

5. Calculating Total Days for 'minimally Active' [category 2] and 'HEPA Active' [category 3]

Presenting IPAQ data using categorical variables requires the total number of "days' on which all physical activity was undertaken to be assessed. This is difficult because frequency in "days' is asked separately for walking, moderate-intensity and vigorous-intensity activity, thus allowing the total number of "days' to range from a minimum of 0 to a maximum of 21'days' per week. The IPAQ instrument does not record if different types of activity are undertaken on the same day.

In calculating **'minimal activity'**, the primary requirement is to identify those individuals who undertake a combination of walking and/or moderate-intensity activity on at least "5 days'/week. Individuals who meet this criterion should be coded in a new variable called —*at least five days"*.

> Below are two examples showing this coding in practice: i) an individual who reports "2 days of moderate' and "3 days of walking' should be coded as a value indicating —*at least five days"*; ii) an individual reporting "2 days of vigorous', "2 days walking' and "2 days moderate' should be coded as a value to indicate —*at least five days"* [even though the actual total is 6].

The original frequency of "days' for each type of activity should remain in the data file for use in the other calculations.

The same approach as described above is used to calculate total days for computing the "**HEPA active'** category. The primary requirement according to the stated criteria is to identify those individuals who undertake a combination of walking, moderate-intensity and or vigorous activity on at least 7 days/week. Individuals who meet this criterion should be coded in a value in a new variable to reflect *"at least 7 days*".

> Below are two examples showing this coding in practice: i) an individual who reports "4 days of moderate' and "3 days of walking' should be coded as the new variable "*at least 7 days*". ii) an individual reporting "3 days of vigorous', "3 days walking' and "3 days moderate' should be coded as "*at least 7 days*" [even though the total adds to 9] .

Summary: The algorithm(s) in Appendix 1 and Appendix 2 to this document show how these rules work in an analysis plan, to develop the categories 1 [inactive], 2 [minimally], and 3 [HEPA] levels of activity. A short form ["at a glance'] and a diagram showing these analytic steps for "sufficient physical activity' and "high active' categories are shown as appendix 1 at the end of this document.

IPAQ Research
Committee April 2004

APPENDIX 1

At A Glance

IPAQ Scoring Protocol (Short Versions)

Categorical Score- three levels of physical activity are proposed

1. *Inactive*

- No activity is reported **OR**
- Some activity is reported but not enough to meet Categories 2 or 3.

2. Minimally Active

Any one of the following 3 criteria

- 3 or more days of vigorous activity of at least 20 minutes per day **OR**
- 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day **OR**
- 5 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 600 MET-min/week.

3. HEPA active

Any one of the following 2 criteria

- Vigorous-intensity activity on at least 3 days and accumulating at least 1500 MET-minutes/week

  OR
- 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 3000 MET-minutes/week

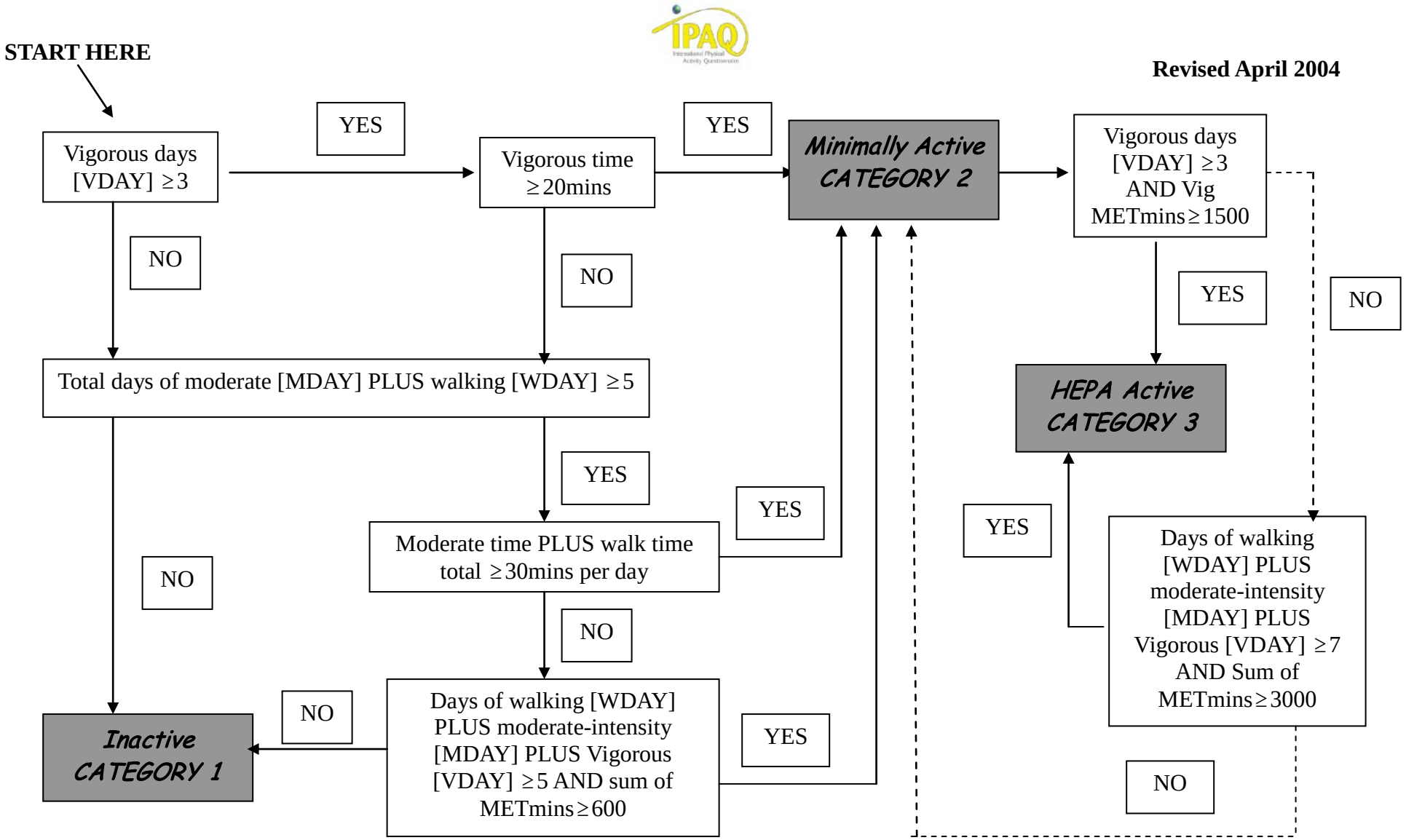
Continuous Score

Expressed as MET-min per week: MET level x minutes of activity x events per week

	Sample Calculation
MET levels	**MET-min/week for 30 min episodes, 5 times/week**
Walking = 3.3 METs	3.3*30*5=495 MET-min/week
Moderate Intensity = 4.0 METs	4.0*30*5=600 MET-min/week
Vigorous Intensity = 8.0 METs	8.0*30*5=1,200 MET-min/week
	_____
	TOTAL = 2,295 MET-min/week

Total MET-min/week = (Walk METs*min*days) + (Mod METs*min*days) + Vig METs*min*days)

Please review the document "Guidelines for the data processing and analysis of the International Physical Activity Questionnaire (Short Form)" for more detailed description of IPAQ analysis and recommendations for data cleaning and processing [www.ipaq.ki.se].



APPENDIX 2: **Flow chart algorithm for the analysis of IPAQ short form**

Appendix C Frequency Tables

A. Body weight control

Q1a. Height (without wearing shoes) cm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	115	1	.1	.1	.1
	120	1	.0	.0	.1
	123	1	.0	.0	.1
	131	1	.0	.0	.2
	132	2	.1	.1	.2
	133	1	.0	.0	.3
	134	2	.1	.1	.4
	140	3	.2	.2	.5
	143	4	.2	.2	.7
	145	5	.3	.3	1.0
	146	1	.0	.0	1.0
	147	5	.2	.3	1.3
	148	13	.6	.6	1.9
	149	2	.1	.1	2.0
	150	137	6.6	6.6	8.6
	151	6	.3	.3	8.9
	152	30	1.4	1.4	10.3
	153	78	3.8	3.8	14.1
	154	26	1.3	1.3	15.4
	155	147	7.0	7.1	22.4
	156	32	1.6	1.6	24.0
	157	38	1.8	1.8	25.8
	158	163	7.8	7.9	33.7
	159	17	.8	.8	34.5
	160	212	10.2	10.2	44.7
	161	18	.8	.9	45.6
	162	49	2.4	2.4	48.0
	163	93	4.5	4.5	52.5
	164	37	1.8	1.8	54.2
	165	196	9.4	9.5	63.7
	166	24	1.2	1.2	64.9
	167	48	2.3	2.3	67.2
	168	110	5.3	5.3	72.5
	169	15	.7	.7	73.3
	170	138	6.6	6.6	79.9
	171	13	.6	.6	80.5
	172	42	2.0	2.0	82.5
	173	56	2.7	2.7	85.3
	174	20	1.0	1.0	86.2
	175	93	4.4	4.5	90.7
	176	32	1.5	1.5	92.2
	177	17	.8	.8	93.1
	178	57	2.7	2.7	95.8
	179	3	.2	.2	96.0

	180	43	2.1	2.1	98.0
	181	4	.2	.2	98.2
	182	10	.5	.5	98.7
	183	12	.6	.6	99.3
	184	2	.1	.1	99.4
	185	4	.2	.2	99.6
	186	1	.0	.0	99.6
	187	4	.2	.2	99.8
	189	1	.1	.1	99.9
	190	2	.1	.1	100.0
	Total	2076	99.4	100.0	
Missing	outlier	12	.6		
Total		2088	100.0		

Q1b. Weight (wearing simple clothes) kg

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	37.0	1	.0	.0	.0
	38.0	3	.1	.1	.2
	39.0	1	.0	.0	.2
	40.0	20	1.0	1.0	1.2
	41.0	10	.5	.5	1.7
	42.0	14	.7	.7	2.3
	43.0	20	.9	.9	3.3
	44.0	21	1.0	1.0	4.3
	45.0	97	4.6	4.7	8.9
	46.0	22	1.1	1.1	10.0
	47.0	32	1.5	1.6	11.6
	48.0	57	2.8	2.8	14.3
	49.0	47	2.2	2.2	16.6
	50.0	123	5.9	5.9	22.5
	51.0	26	1.2	1.2	23.7
	52.0	54	2.6	2.6	26.3
	53.0	38	1.8	1.8	28.1
	53.6	1	.1	.1	28.2
	54.0	58	2.8	2.8	31.0
	55.0	175	8.4	8.4	39.4
	56.0	37	1.8	1.8	41.2
	57.0	65	3.1	3.1	44.3
	58.0	44	2.1	2.1	46.4
	59.0	143	6.9	6.9	53.3
	60.0	71	3.4	3.4	56.7
	61.0	50	2.4	2.4	59.2
	62.0	28	1.4	1.4	60.5
	63.0	62	3.0	3.0	63.5
	64.0	120	5.8	5.8	69.3
	65.0	67	3.2	3.2	72.5
	66.0	48	2.3	2.3	74.8
	67.0	21	1.0	1.0	75.8
	68.0	89	4.3	4.3	80.1
	69.0	9	.4	.4	80.5
	70.0	51	2.4	2.5	83.0

	71.0	12	.6	.6	83.6
	72.0	19	.9	.9	84.5
	73.0	69	3.3	3.3	87.8
	74.0	11	.5	.5	88.4
	75.0	43	2.1	2.1	90.4
	76.0	12	.6	.6	91.0
	77.0	36	1.7	1.8	92.8
	78.0	8	.4	.4	93.2
	79.0	1	.1	.1	93.2
	80.0	27	1.3	1.3	94.5
	81.0	7	.3	.3	94.8
	82.0	25	1.2	1.2	96.1
	83.0	2	.1	.1	96.2
	84.0	3	.1	.1	96.3
	85.0	3	.2	.2	96.5
	86.0	17	.8	.8	97.3
	87.0	6	.3	.3	97.6
	88.0	1	.1	.1	97.7
	89.0	2	.1	.1	97.8
	90.0	9	.4	.4	98.2
	91.0	8	.4	.4	98.6
	92.0	1	.1	.1	98.6
	93.0	2	.1	.1	98.7
	95.0	5	.2	.2	99.0
	96.0	1	.1	.1	99.0
	97.0	3	.1	.1	99.1
	98.0	2	.1	.1	99.3
	99.0	2	.1	.1	99.4
	100.0	2	.1	.1	99.5
	104.0	1	.0	.0	99.5
	110.0	2	.1	.1	99.6
	111.0	1	.0	.0	99.6
	115.0	1	.0	.0	99.7
	116.0	2	.1	.1	99.8
	118.0	1	.0	.0	99.8
	120.0	3	.2	.2	100.0
	Total	2076	99.4	100.0	
Missing	outlier	12	.6		
Total		2088	100.0		

Q1c. Waist circumference cm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	50	2	.1	.1	.1
	53	1	.0	.0	.2
	55	2	.1	.1	.2
	57	1	.0	.0	.3
	58	21	1.0	1.0	1.3
	59	1	.0	.0	1.3
	60	68	3.3	3.3	4.6
	61	4	.2	.2	4.8
	62	9	.4	.4	5.2

	63	148	7.1	7.1	12.4
	64	7	.3	.3	12.7
	65	168	8.1	8.1	20.8
	66	4	.2	.2	21.0
	67	7	.3	.3	21.4
	68	1	.0	.0	21.4
	68	167	8.0	8.0	29.4
	69	12	.6	.6	30.0
	70	244	11.7	11.7	41.7
	71	2	.1	.1	41.8
	72	16	.7	.7	42.6
	73	160	7.7	7.7	50.3
	74	8	.4	.4	50.6
	75	258	12.3	12.4	63.1
	76	2	.1	.1	63.2
	77	9	.4	.4	63.6
	78	123	5.9	5.9	69.5
	79	3	.2	.2	69.7
	80	275	13.2	13.2	82.9
	81	4	.2	.2	83.1
	82	1	.1	.1	83.2
	83	103	5.0	5.0	88.1
	85	105	5.0	5.1	93.2
	86	1	.1	.1	93.3
	88	27	1.3	1.3	94.6
	90	44	2.1	2.1	96.7
	93	8	.4	.4	97.1
	95	22	1.1	1.1	98.2
	98	8	.4	.4	98.5
	99	10	.5	.5	99.0
	100	11	.5	.5	99.5
	104	1	.0	.0	99.5
	105	5	.2	.2	99.8
	110	4	.2	.2	99.9
	120	1	.1	.1	100.0
	Total	2076	99.4	100.0	
Missing	outlier	12	.6		
Total		2088	100.0		

Q2a. Does your weight now differ by more than 10 pounds from your weight one year ago?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	330	15.8	15.8	15.8
	no	1743	83.5	83.5	99.3
	don't know	15	.7	.7	100.0
	Total	2088	100.0	100.0	

Q2b. Did it increase or decrease?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	increased	194	9.3	58.8	58.8
	decreased	136	6.5	41.2	100.0
	Total	330	15.8	100.0	
Missing	0	1758	84.2		
Total		2088	100.0		

Q3. What do you think about your current weight?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	overweight	844	40.4	40.6	40.6
	just right	1038	49.7	50.0	90.6
	underweight	195	9.3	9.4	100.0
	Total	2077	99.5	100.0	
Missing	refuse to answer	2	.1		
	outlier	9	.5		
	Total	11	.5		
Total		2088	100.0		

Q4a. During the past 12 months, did you try to do something deliberately to control your weight? (i.e. for increasing weight, decreasing weight or maintaining weight)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	575	27.5	27.7	27.7
	no	1503	72.0	72.3	100.0
	Total	2079	99.5	100.0	
Missing	outlier	9	.5		
Total		2088	100.0		

Q4b. Is it for increasing weight, losing weight or maintaining weight?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	losing weight	359	17.2	62.5	62.5
	increasing weight	25	1.2	4.4	66.9
	maintaining weight	190	9.1	33.1	100.0
	Total	574	27.5	100.0	
Missing	0	1503	72.0		
	refuse to answer	1	.1		
	outlier	9	.5		
	Total	1514	72.5		
Total		2088	100.0		

Q5. What methods did you use to control your weight?

Q5a1. Taking the drugs/products (including health food) for controlling weight

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	97	4.7	16.9	16.9
	no	478	22.9	83.1	100.0
	Total	575	27.5	100.0	
Missing	0	1503	72.0		
	outlier	9	.5		
	Total	1513	72.5		
Total		2088	100.0		

Q5b1. How long have you been taking the drugs/products for controlling weight?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-6 days	1	.1	1.4	1.4
	1-3 weeks	8	.4	7.9	9.3
	1 month	19	.9	19.3	28.7
	2-3 months	26	1.3	27.1	55.8
	4-5 months	4	.2	4.1	59.9
	6-9 months	18	.9	18.8	78.6
	10-12 months	2	.1	2.2	80.8
	13 months or above	19	.9	19.2	100.0
	Total	97	4.7	100.0	
Missing	0	1981	94.9		
	outlier	9	.5		
	Total	1991	95.3		
Total		2088	100.0		

Q5a2. Consulting doctors/dieticians

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	56	2.7	9.7	9.7
	no	520	24.9	90.3	100.0
	Total	575	27.5	100.0	
Missing	0	1503	72.0		
	outlier	9	.5		
	Total	1513	72.5		
Total		2088	100.0		

Q5b2. How long have you been consulting doctors/dieticians?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-6 days	3	.2	6.1	6.1
	1-3 weeks	4	.2	7.4	13.5
	1 month	8	.4	15.2	28.7
	2-3 months	5	.2	9.3	38.0
	4-5 months	3	.2	6.0	44.0
	6-9 months	7	.3	12.1	56.1
	10-12 months	7	.3	12.2	68.4
	13 months or above	18	.8	31.6	100.0
	Total	56	2.7	100.0	

Missing	0	2023	96.9		
	outlier	9	.5		
	Total	2032	97.3		
Total		2088	100.0		

Q5a3. Going to weight control/beauty parlours

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	23	1.1	4.1	4.1
	no	552	26.4	95.9	100.0
	Total	575	27.5	100.0	
Missing	0	1503	72.0		
	outlier	9	.5		
	Total	1513	72.5		
Total		2088	100.0		

Q5b3. How long have you been going to weight control/beauty parlours?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 weeks	1	.1	4.6	4.6
	2-3 months	13	.6	53.6	58.1
	4-5 months	1	.0	2.8	60.9
	6-9 months	4	.2	15.4	76.3
	10-12 months	1	.0	4.0	80.3
	13 months or above	5	.2	19.7	100.0
	Total	23	1.1	100.0	
Missing	0	2055	98.4		
	outlier	9	.5		
	Total	2065	98.9		
Total		2088	100.0		

Q5a4. Doing physical exercises

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	464	22.2	80.7	80.7
	no	111	5.3	19.3	100.0
	Total	575	27.5	100.0	
Missing	0	1503	72.0		
	outlier	9	.5		
	Total	1513	72.5		
Total		2088	100.0		

Q5b4. How long have you been doing physical exercises?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-6 days	5	.2	1.1	1.1
	1-3 weeks	16	.8	3.4	4.5
	1 month	28	1.3	6.0	10.5
	2-3 months	62	3.0	13.4	23.9
	4-5 months	23	1.1	5.0	28.9
	6-9 months	64	3.1	13.9	42.7
	10-12 months	33	1.6	7.1	49.8

	13 months or above	233	11.2	50.2	100.0
	Total	464	22.2	100.0	
Missing	0	1614	77.3		
	outlier	9	.5		
	Total	1624	77.8		
Total		2088	100.0		

Q5a5. Changing dietary habit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	430	20.6	74.7	74.7
	no	145	7.0	25.3	100.0
	Total	575	27.5	100.0	
Missing	0	1503	72.0		
	outlier	9	.5		
	Total	1513	72.5		
Total		2088	100.0		

Q5b5. How long have you been changing dietary habit?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-6 days	3	.1	.7	.7
	1-3 weeks	12	.6	2.9	3.6
	1 month	23	1.1	5.5	9.1
	2-3 months	53	2.6	12.4	21.4
	4-5 months	23	1.1	5.3	26.8
	6-9 months	70	3.3	16.2	42.9
	10-12 months	50	2.4	11.6	54.5
	13 months or above	195	9.4	45.5	100.0
	Total	430	20.6	100.0	
Missing	0	1649	79.0		
	outlier	9	.5		
	Total	1658	79.4		
Total		2088	100.0		

B. Physical exercises/activities

Q6. During the last 7 days, on how many days did you do vigorous physical activities? Vigorous activities are those that make you breathe much harder than normal, e.g. aerobics, football, swimming, heavy physical work, jogging, etc., and you did these activities for at least 10 minutes at a time.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1380	66.1	66.1	66.1
	1	212	10.1	10.1	76.2
	2	162	7.8	7.8	84.0
	3	105	5.0	5.0	89.0
	4	46	2.2	2.2	91.2
	5	39	1.9	1.9	93.1
	6	34	1.6	1.6	94.7
	7	110	5.3	5.3	100.0
	Total	2088	100.0	100.0	

Q7. How much time on average per day did you usually spend on doing vigorous physical activities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1380	66.1	66.1	66.1
	10	39	1.9	1.9	68.0
	13	1	.1	.1	68.0
	15	42	2.0	2.0	70.1
	17	1	.0	.0	70.1
	20	43	2.0	2.0	72.1
	25	7	.3	.3	72.5
	30	156	7.5	7.5	79.9
	34	1	.0	.0	80.0
	35	4	.2	.2	80.2
	40	10	.5	.5	80.6
	45	40	1.9	1.9	82.5
	50	2	.1	.1	82.6
	60	154	7.4	7.4	90.0
	75	2	.1	.1	90.1
	80	1	.1	.1	90.2
	90	44	2.1	2.1	92.3
	100	2	.1	.1	92.4
	110	1	.0	.0	92.4
	120	72	3.5	3.5	95.9
	150	8	.4	.4	96.3
	180	20	1.0	1.0	97.3
	195	1	.1	.1	97.3
	200	2	.1	.1	97.4
	210	1	.0	.0	97.4
	240	14	.7	.7	98.1
	270	1	.0	.0	98.1
	300	4	.2	.2	98.3
	360	5	.2	.2	98.6
	400	1	.1	.1	98.6
	420	5	.2	.2	98.9
	480	13	.6	.6	99.5
	510	1	.0	.0	99.5
	540	4	.2	.2	99.7
	600	1	.1	.1	99.8
	630	1	.0	.0	99.8
	720	4	.2	.2	100.0
	Total	2088	100.0	100.0	

Q8. During the last 7 days, on how many days did you do moderate physical activities? Moderate physical activities are those that make you breathe somewhat harder than normal, e.g. bicycling, washing cars/polishing, fast walking, cleaning windows, etc. and you did these activities for at least 10 minutes at a time.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1179	56.4	56.4	56.4
	1	176	8.4	8.4	64.9

2	172	8.2	8.2	73.1
3	143	6.8	6.8	79.9
4	55	2.6	2.6	82.6
5	54	2.6	2.6	85.2
6	20	.9	.9	86.1
7	290	13.9	13.9	100.0
Total	2088	100.0	100.0	

Q9. How much time on average per day did you usually spend on doing moderate physical activities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1179	56.4	56.5	56.5
	10	80	3.8	3.8	60.4
	12	1	.1	.1	60.4
	13	3	.1	.1	60.6
	14	1	.1	.1	60.6
	15	105	5.0	5.0	65.7
	20	102	4.9	4.9	70.5
	24	1	.0	.0	70.6
	25	8	.4	.4	71.0
	30	268	12.9	12.9	83.9
	40	9	.4	.4	84.3
	45	26	1.2	1.2	85.6
	50	3	.1	.1	85.7
	60	147	7.1	7.1	92.7
	90	27	1.3	1.3	94.1
	100	3	.1	.1	94.2
	110	1	.0	.0	94.2
	120	59	2.8	2.8	97.0
	150	2	.1	.1	97.1
	160	1	.0	.0	97.2
	180	18	.8	.8	98.0
	240	8	.4	.4	98.4
	250	1	.1	.1	98.5
	270	2	.1	.1	98.5
	300	9	.4	.4	99.0
	330	1	.1	.1	99.0
	360	2	.1	.1	99.1
	390	1	.0	.0	99.2
	420	3	.2	.2	99.3
	480	8	.4	.4	99.7
	540	1	.0	.0	99.8
	600	3	.1	.1	99.9
	640	1	.1	.1	100.0
	720	1	.0	.0	100.0
	Total	2085	99.8	100.0	
Missing	don't know	3	.2		
Total		2088	100.0		

Q10. During the last 7 days, on how many days did you walk for at least 10 minutes at a time? This includes walking to offices/schools, walking to travel from place to place, and walking for leisure.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	88	4.2	4.2	4.2
	1	21	1.0	1.0	5.2
	2	51	2.4	2.4	7.6
	3	73	3.5	3.5	11.2
	4	53	2.5	2.5	13.7
	5	142	6.8	6.8	20.5
	6	60	2.9	2.9	23.4
	7	1600	76.6	76.6	100.0
	Total	2088	100.0	100.0	

Q11. How much time on average did you usually spent on walking?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	88	4.2	4.2	4.2
	10	120	5.8	5.8	10.0
	12	2	.1	.1	10.1
	13	3	.1	.1	10.2
	14	1	.0	.0	10.2
	15	167	8.0	8.0	18.2
	16	2	.1	.1	18.3
	17	1	.0	.0	18.3
	18	1	.1	.1	18.4
	20	250	12.0	12.0	30.4
	25	32	1.5	1.5	31.9
	30	600	28.7	28.8	60.8
	35	6	.3	.3	61.0
	40	39	1.9	1.9	62.9
	45	54	2.6	2.6	65.5
	48	1	.0	.0	65.6
	50	4	.2	.2	65.8
	60	307	14.7	14.7	80.5
	65	2	.1	.1	80.6
	70	1	.0	.0	80.7
	80	1	.0	.0	80.7
	90	68	3.3	3.3	84.0
	100	5	.2	.2	84.2
	110	1	.0	.0	84.3
	120	133	6.4	6.4	90.7
	130	1	.1	.1	90.7
	150	14	.7	.7	91.4
	180	54	2.6	2.6	94.0
	200	5	.2	.2	94.2
	210	2	.1	.1	94.3
	240	29	1.4	1.4	95.7
	280	1	.1	.1	95.8
	300	21	1.0	1.0	96.8

	330	1	.1	.1	96.8
	360	12	.6	.6	97.4
	390	1	.0	.0	97.4
	400	3	.2	.2	97.6
	420	9	.4	.4	98.0
	450	1	.1	.1	98.1
	480	13	.6	.6	98.7
	500	1	.0	.0	98.7
	540	7	.4	.4	99.1
	600	11	.5	.5	99.6
	640	1	.0	.0	99.7
	660	1	.0	.0	99.7
	720	4	.2	.2	99.9
	780	1	.0	.0	99.9
	840	1	.0	.0	100.0
	900	1	.0	.0	100.0
	Total	2083	99.8	100.0	
Missing	don't know	5	.2		
Total		2088	100.0		

Q12. During the last 7 days, how much time on average did you usually spend on sitting on a weekday? This includes time spent sitting at work, at home, visiting friends, reading, traveling on public transport, and lying down to watch television.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	12	.6	.6	.6
	.4	1	.1	.1	.6
	.5	1	.0	.0	.7
	.5	9	.4	.4	1.1
	.8	1	.1	.1	1.2
	1.0	49	2.4	2.4	3.5
	1.5	8	.4	.4	3.9
	2.0	158	7.6	7.6	11.5
	2.5	18	.8	.8	12.4
	3.0	226	10.8	10.8	23.2
	3.5	10	.5	.5	23.6
	4.0	247	11.8	11.8	35.5
	4.5	16	.8	.8	36.2
	5.0	232	11.1	11.1	47.3
	5.5	11	.5	.5	47.9
	6.0	240	11.5	11.5	59.3
	6.5	5	.2	.2	59.6
	7.0	100	4.8	4.8	64.3
	7.5	5	.3	.3	64.6
	8.0	255	12.2	12.2	76.8
	8.5	3	.1	.1	77.0
	9.0	63	3.0	3.0	80.0
	9.5	1	.0	.0	80.0
	10.0	240	11.5	11.5	91.5
	10.5	1	.0	.0	91.6
	11.0	12	.6	.6	92.1
	11.5	1	.0	.0	92.2

	12.0	85	4.1	4.1	96.3
	12.5	2	.1	.1	96.4
	13.0	18	.8	.8	97.2
	13.5	1	.1	.1	97.3
	14.0	20	.9	.9	98.2
	15.0	20	1.0	1.0	99.2
	15.5	1	.1	.1	99.2
	16.0	8	.4	.4	99.6
	17.0	4	.2	.2	99.8
	18.0	1	.0	.0	99.9
	20.0	3	.1	.1	100.0
	Total	2088	100.0	100.0	

C. Dietary habits

Q13a. On average, how many days do you eat fruit each week? (not including fruit juice)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 day	98	4.7	4.7	4.7
	2 days	169	8.1	8.1	12.7
	3 days	231	11.1	11.1	23.8
	4 days	191	9.1	9.1	33.0
	5 days	117	5.6	5.6	38.6
	6 days	27	1.3	1.3	39.9
	7 days	1162	55.7	55.7	95.5
	none	93	4.5	4.5	100.0
	Total	2088	100.0	100.0	

Q13b. How many fruits, on average, did you eat on one of those days? (one fruit equals to one medium sized apple or orange, one banana or two apricot or plum, or one bowl of small fruit like grapes or strawberries).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	93	4.5	4.5	4.5
	.1	1	.1	.1	4.5
	.3	4	.2	.2	4.7
	.3	1	.0	.0	4.8
	.5	109	5.2	5.2	10.0
	.8	3	.1	.1	10.1
	.8	1	.0	.0	10.2
	1.0	1248	59.8	59.8	70.0
	1.3	1	.1	.1	70.0
	1.5	102	4.9	4.9	74.9
	2.0	421	20.2	20.2	95.1
	2.5	13	.6	.6	95.7
	3.0	58	2.8	2.8	98.5
	3.5	3	.1	.1	98.6
	4.0	18	.9	.9	99.5
	5.0	8	.4	.4	99.9
	6.0	1	.1	.1	100.0

	6.5	1	.0	.0	100.0
	Total	2088	100.0	100.0	

Q14a. On average, how many days do you eat vegetables each week?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 day	21	1.0	1.0	1.0
	2 days	29	1.4	1.4	2.4
	3 days	66	3.1	3.1	5.6
	4 days	79	3.8	3.8	9.4
	5 days	96	4.6	4.6	14.0
	6 days	24	1.1	1.1	15.1
	7 days	1753	84.0	84.0	99.1
	none	19	.9	.9	100.0
	Total	2088	100.0	100.0	

Q14b. How many bowls of vegetables, on average, did you eat on one of those days? (one bowl refers to the size of a rice bowl).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	19	.9	.9	.9
	.10	3	.1	.1	1.1
	.20	2	.1	.1	1.2
	.25	14	.7	.7	1.8
	.30	7	.3	.3	2.2
	.33	2	.1	.1	2.3
	.33	1	.1	.1	2.3
	.33	1	.0	.0	2.3
	.50	398	19.1	19.1	21.4
	.70	2	.1	.1	21.5
	.75	31	1.5	1.5	23.0
	1.00	1013	48.5	48.5	71.5
	1.50	164	7.9	7.9	79.4
	2.00	343	16.4	16.4	95.8
	2.50	18	.8	.8	96.7
	3.00	50	2.4	2.4	99.1
	4.00	14	.7	.7	99.8
	5.00	4	.2	.2	99.9
	13.00	1	.0	.0	100.0
	15.00	1	.0	.0	100.0
	Total	2088	100.0	100.0	

D. Consumption behaviour of certain selected high-risk food items

In the past 3 months, how often on average did you eat the following foods at home and outside?

Q15a. raw oyster

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	more than 1 time per day	1	.1	.1	.1
	5 times per week	1	.0	.0	.1
	3 times per week	2	.1	.1	.2
	2 times per week	2	.1	.1	.3
	1 time per week	13	.6	.6	.9
	3 times per month	4	.2	.2	1.1
	2 times per month	22	1.0	1.0	2.1
	1 time per month	55	2.6	2.6	4.8
	1 time per 2 months	39	1.9	1.9	6.7
	1 time per 3 months	154	7.4	7.4	14.0
	no consumption in the past 3 months	1776	85.1	85.1	99.1
	don't remember	19	.9	.9	100.0
	Total	2088	100.0	100.0	

Q15b. raw/undercooked prawns, crabs and other shellfish like scallops, mussels etc

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4 times per week	1	.0	.0	.0
	3 times per week	1	.1	.1	.1
	2 times per week	2	.1	.1	.2
	1 time per week	23	1.1	1.1	1.3
	2 times per month	16	.8	.8	2.0
	1 time per month	44	2.1	2.1	4.2
	1 time per 2 months	15	.7	.7	4.9
	1 time per 3 months	40	1.9	1.9	6.8
	no consumption in the past 3 months	1943	93.1	93.1	99.8
	don't remember	3	.2	.2	100.0
	Total	2088	100.0	100.0	

Q15c. sashimi/raw fish

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 time per day	1	.0	.0	.0
	6 times per week	5	.2	.2	.3
	4 times per week	1	.1	.1	.3
	3 times per week	6	.3	.3	.6
	2 times per week	21	1.0	1.0	1.6
	1 time per week	91	4.3	4.3	6.0
	3 times per month	51	2.4	2.4	8.4
	2 times per month	165	7.9	7.9	16.3
	1 time per month	300	14.4	14.4	30.7
	1 time per 2 months	106	5.1	5.1	35.8
	1 time per 3 months	178	8.5	8.5	44.3
	no consumption in the past 3 months	1144	54.8	54.8	99.1
	don't remember	19	.9	.9	100.0
	Total	2088	100.0	100.0	

Q15d. soft-boiled, loosely scrambled or running eggs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	more than 1 time per day	7	.3	.3	.3
	1 time per day	34	1.6	1.6	2.0
	6 times per week	5	.2	.2	2.2
	5 times per week	3	.2	.2	2.4
	4 times per week	25	1.2	1.2	3.6
	3 times per week	63	3.0	3.0	6.6
	2 times per week	118	5.6	5.6	12.2
	1 time per week	171	8.2	8.2	20.4
	3 times per month	17	.8	.8	21.2
	2 times per month	83	4.0	4.0	25.2
	1 time per month	97	4.6	4.6	29.8
	1 time per 2 months	23	1.1	1.1	30.9

	1 time per 3 months	33	1.6	1.6	32.5
	no consumption in the past 3 months	1392	66.7	66.7	99.2
	don't remember	17	.8	.8	100.0
	Total	2088	100.0	100.0	

Q15e. siu mei

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	more than 1 time per day	3	.2	.2	.2
	1 time per day	19	.9	.9	1.0
	6 times per week	2	.1	.1	1.1
	5 times per week	7	.3	.3	1.5
	4 times per week	32	1.5	1.5	3.0
	3 times per week	112	5.4	5.4	8.4
	2 times per week	240	11.5	11.5	19.9
	1 time per week	607	29.1	29.1	49.0
	3 times per month	105	5.0	5.0	54.0
	2 times per month	311	14.9	14.9	68.9
	1 time per month	248	11.9	11.9	80.8
	1 time per 2 months	49	2.4	2.4	83.2
	1 time per 3 months	71	3.4	3.4	86.6
	no consumption in the past 3 months	253	12.1	12.1	98.7
	don't remember	26	1.3	1.3	100.0
	Total	2088	100.0	100.0	

Q15f. salad

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	more than 1 time per day	5	.2	.2	.2
	1 time per day	11	.5	.5	.8
	6 times per week	2	.1	.1	.9
	4 times per week	4	.2	.2	1.0
	3 times per week	25	1.2	1.2	2.2
	2 times per week	45	2.1	2.1	4.4
	1 time per week	156	7.5	7.5	11.8
	3 times per month	28	1.3	1.3	13.2
	2 times per month	150	7.2	7.2	20.3

	1 time per month	270	12.9	12.9	33.3
	1 time per 2 months	83	4.0	4.0	37.3
	1 time per 3 months	140	6.7	6.7	43.9
	no consumption in the past 3 months	1146	54.9	54.9	98.8
	don't remember	24	1.2	1.2	100.0
	Total	2088	100.0	100.0	

Q15g. Cut fruits that is prepared by vendor before sale

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 time per day	5	.2	.2	.2
	5 times per week	3	.1	.1	.3
	3 times per week	1	.0	.0	.4
	2 times per week	7	.3	.3	.7
	1 time per week	33	1.6	1.6	2.3
	3 times per month	1	.0	.0	2.4
	2 times per month	17	.8	.8	3.2
	1 time per month	23	1.1	1.1	4.2
	1 time per 2 months	11	.5	.5	4.8
	1 time per 3 months	22	1.0	1.0	5.8
	no consumption in the past 3 months	1962	94.0	94.0	99.8
	don't remember	4	.2	.2	100.0
	Total	2088	100.0	100.0	

E. Food handling practices

Q16. How often do you wash all food thoroughly before cooking, especially seafood?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	all of the time	1517	72.7	82.5	82.5
	most of the time	292	14.0	15.8	98.3
	some of the time	27	1.3	1.5	99.8
	none of the time	4	.2	.2	100.0
	Total	1840	88.1	100.0	
Missing	N/A as do not cook food	248	11.9		
Total		2088	100.0		

Q17. How often do you keep raw and cooked food separately?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	all of the time	1295	62.0	68.2	68.2
	most of the time	432	20.7	22.8	91.0
	some of the time	137	6.6	7.2	98.2

	none of the time	34	1.7	1.8	100.0
	Total	1899	90.9	100.0	
Missing	N/A as do not handle food	189	9.1		
Total		2088	100.0		

Q18. How often do you cook /reheat food thoroughly, including seafood?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	all of the time	1416	67.8	72.7	72.7
	most of the time	377	18.1	19.4	92.1
	some of the time	132	6.3	6.8	98.9
	none of the time	22	1.1	1.1	100.0
	Total	1947	93.2	100.0	
Missing	N/A as do not prepare food	141	6.8		
Total		2088	100.0		

Q19. How often do you wash your hands before handling food?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	all of the time	1477	70.8	73.8	73.8
	most of the time	392	18.8	19.6	93.4
	some of the time	126	6.0	6.3	99.7
	none of the time	7	.3	.3	100.0
	Total	2002	95.9	100.0	
Missing	N/A as do not handle food	86	4.1		
Total		2088	100.0		

F. Pattern of alcohol consumption

Q20a. During the last month, had you had at least one alcoholic drink?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	892	42.7	42.7	42.7
	no	1196	57.3	57.3	100.0
	Total	2088	100.0	100.0	

Q20b. On how many days per week during the last month, on average, do you drink at least one alcoholic drink?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	daily	84	4.0	9.4	9.4
	6 days per week	9	.4	1.0	10.4
	5 days per week	7	.3	.8	11.2
	4 days per week	24	1.1	2.7	13.8

	3 days per week	41	2.0	4.6	18.4
	2 days per week	110	5.3	12.4	30.8
	1 day per week	216	10.4	24.3	55.1
	less than 1 day per week	399	19.1	44.9	100.0
	Total	890	42.6	100.0	
Missing	0	1196	57.3		
	8888	2	.1		
	Total	1198	57.4		
Total		2088	100.0		

Q20c. How many standard drinks on average did you drink on those days? (a can or small bottle of beer is approximately equal to one dining glass of wine, or one spirit nip of brandy/whisky, or one small glass of Chinese wine such as rice wine)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.1	3	.1	.3	.3
	.3	1	.0	.1	.4
	.3	2	.1	.3	.7
	.3	1	.1	.1	.8
	.4	1	.1	.1	1.0
	.5	40	1.9	4.5	5.5
	.8	12	.6	1.4	6.8
	1.0	182	8.7	20.4	27.3
	1.1	1	.0	.1	27.4
	1.5	333	16.0	37.4	64.8
	1.8	1	.1	.2	65.0
	2.0	49	2.3	5.5	70.5
	2.5	8	.4	.9	71.4
	3.0	117	5.6	13.1	84.5
	3.5	3	.2	.4	84.8
	4.0	9	.4	1.0	85.8
	4.5	41	2.0	4.6	90.5
	5.0	7	.3	.8	91.3
	5.5	2	.1	.2	91.5
	6.0	27	1.3	3.1	94.6
	6.5	2	.1	.2	94.8
	7.0	2	.1	.3	95.0
	7.5	11	.5	1.2	96.2
	9.0	14	.7	1.6	97.9
	10.0	4	.2	.5	98.3
	10.5	2	.1	.3	98.6
	12.0	4	.2	.4	99.0
	13.5	1	.1	.1	99.1
	15.0	3	.2	.4	99.5
	18.0	2	.1	.2	99.8
	22.5	1	.1	.1	99.9
	24.0	1	.0	.1	100.0
	Total	890	42.6	100.0	
Missing	.0	1196	57.3		
	outlier	2	.1		
	Total	1198	57.4		
Total		2088	100.0		

Q20d. In the last month, did you drink at least 5 glasses or cans of alcohol on one occasion? That means the total number of glasses and cans of any type of alcohol, and one occasion means period of a few hours.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	214	10.2	24.0	24.0
	no	676	32.4	76.0	100.0
	Total	890	42.6	100.0	
Missing	0	1196	57.3		
	outlier	2	.1		
	Total	1198	57.4		
Total		2088	100.0		

Q20e. How many times did you do this in the last month?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	once	92	4.4	43.2	43.2
	twice	46	2.2	21.8	65.0
	three times or more	75	3.6	35.0	100.0
	Total	214	10.2	100.0	
Missing	0	1872	89.7		
	outlier	2	.1		
	Total	1874	89.8		
Total		2088	100.0		

G. Smoking habits

Q21a. Have you smoked before?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes, but not now	161	7.7	7.7	7.7
	yes, and still smoking	350	16.7	16.7	24.5
	never	1577	75.5	75.5	100.0
	Total	2088	100.0	100.0	

Q21b. How long have you abstained from smoking?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 month	2	.1	1.3	1.3
	between 1 month and l year	29	1.4	17.8	19.1
	more than l year	130	6.2	80.9	100.0
	Total	161	7.7	100.0	
Missing	0	1927	92.3		
Total		2088	100.0		

Q21c. How many cigarettes do you smoke on average per day?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 cigarette per day now	22	1.1	6.4	6.4
	1-10 cigarettes per day now	144	6.9	41.1	47.5
	11-20 cigarettes per day now	132	6.3	37.8	85.3
	more than 20 cigarettes per day now	51	2.5	14.7	100.0
	Total	350	16.7	100.0	
Missing	0	1738	83.3		
Total		2088	100.0		

H. Pedestrian and driver road safety behaviour

Q22a. Have you driven a vehicle in the last 12 months?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	490	23.5	23.5	23.5
	no	1598	76.5	76.5	100.0
	Total	2088	100.0	100.0	

Q22b. How often do you break the speed limit by 15km/h?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	all of the time	30	1.4	6.2	6.2
	most of the time	64	3.1	13.2	19.4
	some of the time	215	10.3	44.4	63.9
	none of the time	175	8.4	36.1	100.0
	Total	484	23.2	100.0	
Missing	0	1598	76.5		
	refuse to answer	6	.3		
	Total	1604	76.8		
Total		2088	100.0		

Q22c. In the past month, how many times had you driven a vehicle/car within 2 hours after drinking alcoholic beverages?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	454	21.8	92.7	92.7
	1	15	.7	3.0	95.8
	2	10	.5	2.1	97.8

	3	1	.1	.2	98.1
	4	6	.3	1.2	99.3
	8	1	.1	.3	99.5
	12	1	.0	.2	99.7
	30	1	.1	.3	100.0
	Total	490	23.5	100.0	
Missing	N/A as do not use a vehicle/car	1598	76.5		
Total		2088	100.0		

Q23. As a passenger, how often do you use seat-belt where it is mandatory and available, such as in private car, taxi, or public light bus?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	all of the time	1402	67.1	69.0	69.0
	most of the time	321	15.4	15.8	84.8
	some of the time	232	11.1	11.4	96.2
	none of the time	76	3.7	3.8	100.0
	Total	2031	97.3	100.0	
Missing	N/A as do not use a vehicle/car	57	2.7		
Total		2088	100.0		

Q24. How often do you jay-walk, including ignore traffic light instructions, not using zebra-crossing or footbridge when they are available?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	all of the time	14	.7	.7	.7
	most of the time	187	9.0	9.0	9.7
	some of the time	1453	69.6	69.8	79.4
	none of the time	428	20.5	20.6	100.0
	Total	2083	99.7	100.0	
Missing	N/A as do not cross roads	5	.3		
Total		2088	100.0		

I. Traditional Chinese Medicine consultation behaviour

Q25. In the past 12 months, did you consult Traditional Chinese Medicine Practitioners (TCMP), such as herbalists, acupuncturists, bone-setters, etc.?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	640	30.7	30.7	30.7
	no	1448	69.3	69.3	100.0

	Total	2088	100.0	100.0	

Q26. When was the last time you visited a herbalist?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 months	448	21.5	70.0	70.0
	4-6 months	130	6.2	20.3	90.2
	7-9 months	36	1.7	5.7	95.9
	10-12 months	26	1.2	4.1	100.0
	Total	640	30.7	100.0	
Missing	0	1448	69.3		
Total		2088	100.0		

Q27. Did you consult a western doctor for the problem before the visit to the herbalist?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	276	13.2	43.2	43.2
	no	364	17.4	56.8	100.0
	Total	640	30.7	100.0	
Missing	0	1448	69.3		
Total		2088	100.0		

Q28. What was the main reason of consultation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	respiratory symptoms	212	10.2	33.1	33.1
	gastro symptoms	42	2.0	6.6	39.7
	skin problems	32	1.5	4.9	44.6
	injury and musculoskeletal pain	102	4.9	15.9	60.6
	diabetes	1	.1	.2	60.8
	heart diseases	2	.1	.3	61.1
	others	224	10.7	35.0	96.1
	body maintenance	25	1.2	3.9	100.0
	Total	640	30.7	100.0	
Missing	0	1448	69.3		
Total		2088	100.0		

Q29. What is your most frequently adopted stress coping mechanism?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	exercise	348	16.7	18.9	18.9
	more rest/ sleep	211	10.1	11.5	30.4
	talking to somebody	127	6.1	6.9	37.4
	smoking	6	.3	.3	37.7
	drinking	39	1.9	2.1	39.8
	eating	63	3.0	3.4	43.2

	shopping or leisure activities	82	3.9	4.4	47.7
	reading	97	4.7	5.3	53.0
	listening to music	233	11.1	12.7	65.7
	attend stress management class	1	.0	.0	65.7
	others	562	26.9	30.6	96.3
	watching TV/ movies	68	3.3	3.7	100.0
	Total	1835	87.9	100.0	
Missing	N/A as no stress	253	12.1		
Total		2088	100.0		

K. Oral health practices

Q30. How many times a day do you brush your teeth?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 time per day	350	16.8	16.8	16.8
	2 times per day	1658	79.4	79.4	96.2
	3 times per day	59	2.8	2.8	99.0
	more than 3 times per day	20	.9	.9	99.9
	less than 1 time per day	1	.1	.1	100.0
	Total	2088	100.0	100.0	

Q31. How many times a day do you use dental floss?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 time per day	363	17.4	17.4	17.4
	2 times per day	112	5.3	5.3	22.8
	3 times per day	26	1.2	1.2	24.0
	more than 3 times per day	9	.4	.4	24.4
	less than 1 time per day	210	10.1	10.1	34.5
	never	1368	65.5	65.5	100.0
	Total	2087	100.0	100.0	
Missing	forgotten	1	.0		
Total		2088	100.0		

L. Cervical Screening (for female respondents only)

Q32a. Have you had a cervical smear before?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	700	33.5	63.9	63.9

	no	388	18.6	35.4	99.3
	uncertain	7	.4	.7	100.0
	Total	1095	52.5	100.0	
Missing	N/A as not a female	993	47.5		
Total		2088	100.0		

Q32b. If yes, when did you have the last cervical smear?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	within 0-11 months	329	15.8	47.4	47.4
	1 year before	164	7.8	23.6	71.0
	2 years before	87	4.2	12.5	83.5
	3 years before	44	2.1	6.3	89.8
	4 years before	9	.4	1.3	91.1
	5 years or more before	43	2.0	6.1	97.2
	Can't remember	19	.9	2.8	100.0
	Total	695	33.3	100.0	
Missing	0	396	18.9		
	outlier	5	.2		
	N/A as not a female	993	47.5		
	Total	1393	66.7		
Total		2088	100.0		

Q32c. Was it your first cervical smear?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	120	5.7	17.2	17.2
	no	570	27.3	82.2	99.4
	Not sure	4	.2	.6	
	Total	694	33.2	100.0	100.0
Missing	0	396	19.0		
	refuse to answer	1	.0		
	N/A as not a female	992	47.5		
	outliers	5	.2		
	Total	1394	66.8		
Total		2088	100.0		

Q32d. Do you have your cervical smear at a regular interval?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	444	21.3	77.2	77.4
	no	131	6.3	22.8	100.0
	Total	575	27.6	100.0	
Missing	0	515	24.7		
	N/A as not a female	993	47.5		
	outliers	5	.2		
	Total	1513	72.4		
Total		2088	100.0		

Q32e. If regular, how often do you have cervical smear?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	more than once a year	52	2.5	11.7	11.7
	once a year	248	11.9	56.0	67.6
	once every 2 years	76	3.6	17.0	84.6
	once every 3 years	55	2.6	12.4	97.0
	once every 4 years	3	.1	.7	97.7
	once every 5 years	1	.0	.2	97.9
	Forgotten/hard to say	9	.4	1.9	100
	Total	444	21.3	10	.0
				0.0	
	N/A as not a female	993	47.5		
	0	646	30.9		
	outliers	5	.2		
	Total	1653	78.6		
Total		2088	100.0		

Q32f. If not regular, was the longest interval between two cervical smears more than 3 years apart?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	78	3.7	59.6	59.6
	No	50	2.4	38.2	97.7
	Can't remember	3	.1	2.3	100.0
	Total	131	6.2	100.0	
	refuse to answer	1	.0		
	N/A as not a female	993	47.6		
	0	964	46.2		
	Total	1958	93.8		
Total		2088	100.0		

Q33. Have you ever heard about the Cervical Screening Programme organized by the Department of Health?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	728	34.9	66.5	66.5
	no	353	16.9	32.2	98.7
	not sure	14	.7	1.3	100.0
	Total	1095	52.5	100.0	
Missing	N/A as not a female	993	47.5		
Total		2088	100.0		

Q34. If yes, from which source? (multiple responses)

Group $source source

Category label	Code	Count	Pct of Responses	Pct of Cases
TV	1	530	47.3	72.8
roadshow on the bus	2	16	1.5	2.2
radio	3	58	5.2	8.0
newspaper	4	121	10.8	16.5
magazine	5	22	1.9	3.0
poster in transportation: MTR	6	17	1.5	2.3
poster in transportation: KCR	7	1	.1	.1
poster in transportation: Bus stops	8	4	.3	.5
pamphlet	9	84	7.5	11.5
clinics/ MCHC	10	121	10.8	16.7
health talk	11	10	.9	1.4
Internet including CSP website	12	16	1.4	2.1
invitation letter	13	16	1.4	2.2
friend and relative	14	67	6.0	9.2
others	15	38	3.4	5.2
Total responses		1120	100.0	153.8

1,360 missing cases; 728 valid cases

M. Personal information

Q35. Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	993	47.5	47.5	47.5
	female	1095	52.5	52.5	100.0
	Total	2088	100.0	100.0	

Q36. What is your age?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	64	3.0	3.0	3.0
	19	49	2.3	2.3	5.4
	20	34	1.6	1.6	7.0
	21	33	1.6	1.6	8.6
	22	26	1.2	1.2	9.8
	23	40	1.9	1.9	11.7
	24	33	1.6	1.6	13.3
	25	48	2.3	2.3	15.6
	26	33	1.6	1.6	17.2
	27	39	1.9	1.9	19.0
	28	52	2.5	2.5	21.5

29	40	1.9	1.9	23.4
30	79	3.8	3.8	27.2
31	45	2.1	2.1	29.4
32	52	2.5	2.5	31.8
33	36	1.7	1.7	33.6
34	44	2.1	2.1	35.7
35	61	2.9	2.9	38.6
36	58	2.8	2.8	41.4
37	50	2.4	2.4	43.8
38	69	3.3	3.3	47.1
39	41	2.0	2.0	49.0
40	108	5.2	5.2	54.2
41	38	1.8	1.8	56.0
42	58	2.8	2.8	58.8
43	63	3.0	3.0	61.8
44	45	2.1	2.1	64.0
45	91	4.3	4.3	68.3
46	48	2.3	2.3	70.6
47	50	2.4	2.4	73.0
48	58	2.8	2.8	75.8
49	31	1.5	1.5	77.3
50	92	4.4	4.4	81.7
51	22	1.0	1.0	82.7
52	42	2.0	2.0	84.8
53	29	1.4	1.4	86.2
54	34	1.6	1.6	87.8
55	55	2.6	2.6	90.4
56	28	1.3	1.3	91.8
57	27	1.3	1.3	93.1
58	27	1.3	1.3	94.3
59	16	.8	.8	95.1
60	29	1.4	1.4	96.5
61	12	.6	.6	97.1
62	17	.8	.8	97.9
63	16	.8	.8	98.7
64	28	1.3	1.3	100.0
Total	2088	100.0	100.0	

Q37. What is your highest educational attainment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	primary or below	288	13.8	13.8	13.8
	had not completed secondary	368	17.6	17.6	31.4
	completed secondary (F.5)	681	32.6	32.6	64.1
	matriculation	163	7.8	7.8	71.9
	tertiary/ degree or above	587	28.1	28.1	100.0
	Total	2087	100.0	100.0	
Missing	refuse to answer	1	.0		
Total		2088	100.0		

Q38. What is your marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	never married	674	32.3	32.4	32.4
	married and with child	1174	56.2	56.4	88.7
	married and without child	164	7.8	7.9	96.6
	divorced/ seperated	58	2.8	2.8	99.4
	widowed	13	.6	.6	100.0
	Total	2084	99.8	100.0	
Missing	refuse to answer	4	.2		
Total		2088	100.0		

Q39. Are you currently engaged in a job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	1375	65.8	65.8	65.8
	no	713	34.2	34.2	100.0
	Total	2088	100.0	100.0	

Q40. What is your occupation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	employers/ managers/ administrator	117	5.6	8.8	8.8
	professional	165	7.9	12.4	21.2
	associate professional	145	6.9	10.8	32.0
	clerk	310	14.8	23.2	55.3
	service worker	164	7.9	12.3	67.6
	shop sales worker	64	3.0	4.8	72.3
	skilled agricultural/ fishery worker	56	2.7	4.2	76.5
	craft and related worker	77	3.7	5.8	82.3
	plant and machine operator and assembler	115	5.5	8.6	90.9
	unskilled worker	122	5.8	9.1	100.0
	Total	1334	63.9	100.0	
Missing	0	713	34.2		
	refuse to answer	41	1.9		
	Total	754	36.1		
Total		2088	100.0		

Q41. Are you a.....

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	student	144	6.9	20.2	20.2
	home-maker	384	18.4	53.8	74.0
	unemployed person	95	4.6	13.4	87.3
	retired person	81	3.9	11.4	98.7
	others	9	.4	1.3	100.0
	Total	713	34.2	100.0	
Missing	0	1375	65.8		
Total		2088	100.0		

Q42. How much is your monthly personal income including all the income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	$0	2	.1	.2	.2
	$1-$1999	23	1.1	1.8	2.0
	$2000-$3999	42	2.0	3.4	5.4
	$4000-$5999	79	3.8	6.3	11.7
	$6000-$7999	124	5.9	9.9	21.6
	$8000-$9999	160	7.6	12.8	34.4
	$10000-$11999	210	10.0	16.8	51.2
	$12000-$13999	78	3.7	6.3	57.4
	$14000-$15999	113	5.4	9.1	66.5
	$16000-$17999	34	1.6	2.7	69.2
	$18000-$19999	30	1.4	2.4	71.6
	$20000-$24999	129	6.2	10.3	81.9
	$25000-$29999	55	2.6	4.4	86.3
	$30000-$34999	59	2.8	4.7	91.0
	$35000-$39999	31	1.5	2.5	93.4
	$40000-$44999	19	.9	1.5	94.9
	$45000-$49999	11	.5	.9	95.8
	$50000 or above	52	2.5	4.2	100.0
	Total	1250	59.9	100.0	
Missing	0	713	34.2		
	refuse to answer	125	6.0		
	Total	838	40.1		
Total		2088	100.0		

Q43. How much is your monthly household income including all the income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than $2000	33	1.6	2.0	2.0
	$2000-$3999	15	.7	.9	3.0
	$4000-$5999	32	1.5	2.0	4.9
	$6000-$7999	90	4.3	5.5	10.4
	$8000-$9999	111	5.3	6.8	17.2
	$10000-$11999	172	8.2	10.5	27.8

	$12000-$13999	78	3.8	4.8	32.6
	$14000-$15999	127	6.1	7.8	40.3
	$16000-$17999	48	2.3	3.0	43.3
	$18000-$19999	53	2.5	3.2	46.5
	$20000-$24999	243	11.6	14.9	61.4
	$25000-$29999	94	4.5	5.7	67.1
	$30000-$34999	146	7.0	8.9	76.1
	$35000-$39999	57	2.7	3.5	79.5
	$40000-$44999	83	4.0	5.1	84.6
	$45000-$49999	24	1.1	1.4	86.1
	$50000-$54999	71	3.4	4.3	90.4
	$55000-$59999	19	.9	1.1	91.5
	$60000 or above	138	6.6	8.5	100.0
	Total	1634	78.2	100.0	
Missing	refuse to answer	454	21.8		
Total		2088	100.0		

~ End of Report ~