

# **THE FIVE COUNTRY STUDY 2014**

## **Report 2: Perceptions of Weight Control and the Causes of Obesity**

### **Preliminary Findings**

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## **INTRODUCTION**

During December 2013 and January 2014, a detailed online survey was administered among approximately 800 household food providers in each of Indonesia, Melbourne, Shanghai, Singapore and Vietnam, by Global Market Insite, a leading online market research company.

The broad aims of the study were:

- 1 To describe household food providers' food and health behaviours and habits with respect to the nutrition transition, with reference to main food groups and EDNP products.
- 2 To describe their views and opinions about the food supply, especially marketing, retailing and consumption.
- 3 To describe their views of the future and policies which need to be enacted to enable them to behave in ways which sustain their health and wellbeing.

In this report preliminary findings are provided about household food providers' interest in body weight control, their beliefs about the efficacy of a number of weight control strategies as well as their perceptions of the causes of obesity. Our first report in this series examined their views of experiences and views of food marketing. Future reports will examine other findings from the survey including the perceived impacts of supermarkets, their beliefs about the food knowledge and skills children should have when they leave school, their recent dietary habits and their views of the healthiness of selected products. Further analyses are planned which will examine the relationships of the consumers' responses with their personal and demographic characteristics. In addition, we would like to produce individual country reports.

It was our aim to find out more about food consumers who would be likely to be most affected by the economic transition occurring in Asia, i.e. younger, better educated people. We expected that the use of online survey techniques would reach mainly these people. This was the case.

The demographic characteristics of the national samples (of approximately 800 respondents in each country) are provided in our first report on Food Marketing and Communication. Key points to note about the samples include:

- There was a broad representation of men and women in the samples (40-50% of respondents were men).
- The samples were highly educated and well off. Fewer Melbournians claimed to be university educated.
- Melbournians were the oldest respondents, the Vietnamese, the youngest.
- Over one third of the respondents were single (including divorced separated, widowed). Most singles were Vietnamese, the lowest proportion of singles was in Shanghai.
- BMIs were highest in Melbourne and lowest in Vietnam. This is likely to be associated with stature; different BMI cut-offs are used in Asian and Caucasian populations.

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- Residential accommodation reflected known differences in accommodation arrangements in these countries
- Penetration of consumer electronic devices was high and similar in all five countries, confirming the view that these are well off and affected by consumerist society.

Cultural sensitivities and biases in the reporting of background characteristics (such as education and ownership of possessions) should be borne in mind when interpreting the differences between the countries.

## CONCERN ABOUT BODY WEIGHT

**Question: Are you concerned about your weight at the moment?**

	Melbourne n=769	Shanghai n=807	Indonesia n=788	Singapore n=771	Vietnam n=810	Total n=3945	Chi Sq	P
a) Not at all	20.7	22.8	26.6	14.7	14.4	19.8	170.700	<0.001
b) A little concerned	29.4	28.0	28.8	19.3	21.7	25.4		
c) Somewhat concerned	33.0	38.7	32.6	38.8	43.2	37.3		
d) Very concerned	16.9	10.5	11.9	27.2	20.6	17.4		

**Table 1. Household food providers' levels of concern (% somewhat plus very concerned) with their body weight.**

Overall, fewer than half of the respondents were a little concerned or unconcerned about their body weight; 17.4% were very concerned. Greatest concern was seen in Singapore and Vietnam (Table 2). Least concern was expressed in Indonesia.

## VIEWS AND PRACTICES ABOUT WEIGHT CHANGE AND AWARENESS OF BODY MASS INDEX (BMI)

**They were then asked a series of questions (based on IFIC 2013) about what they were doing about their weight (including whether they had heard of the Body Mass Index).**

More women than men were trying to lose weight (76.3% vs 63.2%, p<.001) and more women used dieting (17.0% vs 11.6%), dieting and exercising (57.1% vs 49.4%) rather than exercise alone (21.2% vs 36.4%, p<0.001; data not shown here).

Over two thirds of the respondents (70.8%) were trying to lose weight (Table 2); 87.6% of Melbournians but only 53.6% of Vietnamese respondents were trying to lose weight (Table 2). Combined dieting and exercising, exercising alone and then dieting alone, were the most popular weight loss methods. Dieting alone was most common in Indonesia, exercise alone, was most common in Shanghai and combined exercise and dieting was most prevalent in Vietnam. Respondents in Singapore and Melbourne claimed to have heard of the Body Mass Index in contrast to those in Shanghai (Table 2).

<i>Which of the following are you trying to do about your weight at the moment?</i>	Melbourne n=769	Shanghai n=807	Indonesia n=788	Singapore n=771	Vietnam n=810	Total n=3945	Chi Sq	P
Are you trying to lose weight	87.6	63.2	74.1	79.6	53.6	70.8	182.627	<0.001
Are you trying to gain weight?	3.3	2.2	13.6	6.1	26.0	10.8	197.818	<0.001
Are you trying to stay the same weight?	3.4	17.5	4.6	4.7	5.2	7.1	7.839	0.098
Not doing anything about my weight	5.7	17.1	7.7	9.6	15.2	11.3		
Have you heard of the Body Mass Index (BMI)? % Yes	83.9	55.0	60.8	91.4	69.4	71.9	379.082	<0.001
Are you trying to lose weight	87.6	63.2	74.1	79.6	53.6	70.8	182.627	<0.001
a) By dieting	14.9	10.8	20.3	11.9	16.3	15.0	104.710	<0.001
b) By exercising	23.9	39.7	17.9	32.5	23.1	27.0		
c) By dieting and exercising	53.0	49.0	56.6	52.9	60.3	54.3		
d) Other ways	8.2	0.6	5.2	2.6	0.3	3.7		

**Table 2. Food providers' views and practices about weight change and awareness of the Body Mass index (% Yes).**

#### **PERCEIVED EFFECTIVENESS OF PERSONAL WEIGHT CONTROL OPTIONS**

**Question: How effective are the following actions that individuals can take to maintain a healthy body weight? The followed a list 23 possible weight control actions (Table 3).**

The top five weight control items were: Establish an exercise routine, walk more, avoid sugar sweetened soft drinks (SSB) like Coca Cola, eat smaller portions of food, and eat breakfast every day (Table 3). Key exceptions were the greater popularity of eating smaller portions among Melbournians, the lower interest in avoiding SSB among Vietnamese respondents and the lower interest in eating breakfast everyday among the Indonesia respondents. The five least recommended activities were taking diet pills, eating only with other people, use of commercial meal replacements, the substitution of diet soft drinks for regular soft drinks and the use of slimming diets (Table 3). Again there were exceptions: for example, many more Vietnamese providers supported the substitution of diet soft drinks for regular soft drinks and the use of slimming diets than other respondents (especially those in Melbourne).

Other national differences included: the greater support for protein-rich foods in Melbourne compared to Vietnam, the avoidance of alcoholic drinks in Indonesia, greater support for not eating between meals in Indonesia, higher support for counting calories in Indonesia and Vietnam, greater endorsement

of refusing second helpings in Melbourne and Indonesia (compared to Vietnam), trying to eat less (in Melbourne in contrast to Vietnam) but an opposite trend regarding weighing yourself regularly, more support for smaller plates in Melbourne and Shanghai, greater interest in trying not to sit down for more than 15-20 minutes at a time in Shanghai, and more support for not eating in front of the TV or computer in Shanghai and Vietnam (Table 3).

Generally, significantly more women than men reported that most of the items were effective ways to control bodyweight. In contrast more men reported the following actions to be effective:

- Substitution of diet soft drinks for regular soft drinks (40.8% vs 37.7, p<0.005).
- Use of commercial meal replacements (28.1% vs 25.3%, p<0.001).
- Eating only with other people (20.8% vs 18.4%, p<0.007).
- Taking diet pills (19.3% vs 15.3%, p<0.001).

There were no significant sex differences for the perceived effectiveness of: the use of slimming diets, not sitting down for longer than 15-20 minutes, joining organised weight loss programs, and weighing yourself regularly.

	Melbourne n=769	Shanghai n=807	Indonesia n=788	Singapore n=771	Vietnam n=810	Total n=3945	Chi Sq	P
Establish an exercise routine	87.6	87.5	92.1	84.8	84.7	87.4	42.496	<0.001
Walk more	88.8	86.9	90.1	79.6	83.2	85.7	75.726	<0.001
Avoid sugar sweetened soft drinks like Coca Cola	81.5	70.9	81.5	79.9	60.9	74.8	157.201	<0.001
Eat smaller portions of food.	85.2	61.3	77.0	74.4	63.5	72.1	190.944	<0.001
Eat breakfast every day	76.3	79.7	57.7	68.6	74.8	71.5	158.778	<0.001
Try not to eat sweetened foods like cakes or confectionery	75.7	67.9	68.8	69.9	64.4	69.3	39.047	<0.001
Eat foods with protein (e.g. meats, fish, eggs) every day	72.4	70.8	70.2	64.5	57.3	67.0	112.798	<0.001
Avoid alcoholic drinks	58.1	49.4	77.7	59.9	56.4	60.3	167.316	<0.001
Make a regular shopping list	65.1	57.9	54.8	50.6	61.4	58.0	68.643	<0.001
Don't eat between meals	47.6	60.7	73.7	49.9	57.2	57.9	185.101	<0.001
Count the calories you consume	49.2	57.1	66.1	48.4	67.8	57.8	113.731	<0.001
Don't have second helpings	72.4	58.9	66.1	59.1	31.2	57.3	516.020	<0.001
Try to eat less	70.5	51.1	54.3	58.2	32.5	53.1	429.202	<0.001
Weigh yourself regularly	39.0	47.5	56.7	52.0	53.8	49.9	87.134	<0.001
Join organized weight-loss programs like Weight Watchers	47.6	NA	52.5	39.4	59.1	49.8	75.192	<0.001
Use smaller plates and dishes	68.9	55.8	36.8	54.6	30.1	49.0	470.606	<0.001
Don't sit down for longer than 15-20 minutes at a time	43.8	68.9	40.0	42.0	47.7	48.6	222.845	<0.001
Don't eat in front of the TV or computer	40.2	58.4	32.9	42.5	51.6	45.2	189.124	<0.001
Go on a slimming diet	30.3	41.0	50.4	30.9	57.3	42.2	202.487	<0.001
Substitute diet soft drinks for regular soft drinks	23.5	31.7	46.8	29.3	62.6	39.0	424.294	<0.001
Use commercial meal replacements	19.0	31.2	29.6	21.9	30.5	26.5	138.519	<0.001
Eat only with other people	18.1	27.5	12.6	19.6	19.1	19.4	168.554	<0.001
Take diet pills	10.0	20.3	17.4	16.6	20.4	17.0	75.174	<0.001

**Table 3. Food Providers' perceptions of the views of the effectiveness of ways to maintain body weight (% Effective, ratings 4+5)**

## PERCEIVED CAUSES OF OBESITY

**Question: What do you think are the main causes of obesity? Then followed a list of 13 possible causes of obesity, based on our earlier work in this area (Hardus et al. 2003).**

	Melbourne n=769	Shanghai n=807	Indonesia n=788	Singapore n=771	Vietnam n=810	Total n=3945	Chi Sq	P
Overconsumption of sugar sweetened drinks	88.9	86.1	89.1	86.6	74.2	84.9	257.845	<0.001
People don't do enough physical activity	89.5	88.7	89.6	82.9	70.4	84.1	395.081	<0.001
Eating oversized servings of foods	87.8	88.7	89.3	84.0	69.4	83.8	300.484	<0.001
Regular consumption of fast foods	89.6	79.7	79.6	87.0	70.9	81.2	270.073	<0.001
Lack of physical activity opportunities	66.6	87.0	81.6	76.9	70.5	76.6	238.756	<0.001
People aren't aware of the dangers of obesity	56.8	67.9	81.7	65.5	65.6	67.6	223.379	<0.001
Lack of willpower	72.7	69.5	61.2	73.8	54.8	66.3	315.363	<0.001
The promotion of unhealthy foods (in stores, the mass media and online)	72.8	64.9	55.3	73.4	35.7	60.2	438.277	<0.001
Modern technology (e.g. cars, computers, video games)	68.8	62.3	43.3	64.9	45.9	56.9	343.078	<0.001
Genes cause obesity	44.5	61.8	58.4	62.4	36.5	52.7	387.597	<0.001
The low cost of unhealthy food	71.4	41.3	57.1	62.1	30.1	52.1	400.970	<0.001
Lack of availability of healthy foods	41.0	65.4	53.8	50.3	32.7	48.7	273.021	<0.001
Lack of safe cycling and walking paths	31.5	21.1	34.9	43.3	27.7	31.6	132.652	<0.001

**Table 4. Household food providers' views of the causes of obesity (% definite cause, ratings 4+5).**

There was a large amount of agreement between the respondents in the different countries along with some major differences (Table 3). Overall, over 80% indicated that overconsumption of SSB, insufficient physical activity, eating oversized servings of food, and regular consumption of fast foods, were causes of obesity, though respondents in Vietnam understated these and other causes. Lack of physical activity opportunities was indicated most by people in Shanghai and least by Melbourne respondents. Lack of awareness of the dangers of obesity was cited most by Indonesians and least by Melbournians. Lack of willpower was indicated least by the Vietnamese respondents. The promotion of unhealthy foods was cited most in Melbourne and Singapore and least in Vietnam and Indonesia. Similarly the low cost of unhealthy foods followed the same distribution. Lack of availability of healthy foods was cited most in

Shanghai and least in Vietnam and Melbourne. Modern technology was blamed most by respondents in Melbourne, Singapore and Shanghai, and least by those in Indonesia and Vietnam. Lack of safe cycling and walking paths was cited most in Singapore and least in Shanghai.

There were some statistically significant, though small, differences between the sexes (up to 6% difference, not shown here). More women than men endorsed overconsumption of sugar sweetened drinks, people not doing enough physical activity, eating oversized servings of foods, regular consumption of fast foods and genes, as causes of obesity.

## **DISCUSSION POINTS**

Many respondents throughout the region were concerned about losing weight and are attempting to control their weight. This is similar to the situation in the USA (IFIC 2013) and elsewhere.

There was much agreement throughout the region about the principal causes of obesity. Energy dense products are seen to be a common problem. This is similar to concerns expressed by public health nutritionist (e.g. Moodie et al. 2013). However, there were also major national differences, for example: Melbournians and Singaporeans shared similar viewpoints in many areas. Some national differences help validate the survey findings such as the greater avoidance of alcoholic drinks in Indonesia, an Islamic country.

The Vietnamese respondents seemed to underestimate most of the causes of obesity. This suggests they may be less familiar with this condition. This may relate to the relative recency of the economic and nutrition transitions or to different cultural traditions in this country. Signs of the economic/nutrition transition can be seen in these findings but also of national and cultural differences, e.g. lack of awareness of the dangers of obesity was reported most by Indonesians and least by Melbournians.

The effectiveness of personal ways to avoid obesity were sensible and have a supporting evidence base such as the emphasis on physical activities like walking, the avoidance of energy-dense products and the importance of healthy daily meal patterns such as breakfast taking. Food and health policies could help people do these things.

It is important to engage at least part of the population (such as the rising middle class) if food and nutrition policies are to be well founded and well supported and long lasting (Laverack 2010, Lobstein et al. 2013).

There is a need to monitor these perceptions in order to assess the effectiveness of national food policies and to assess the effects of the economic and nutrition transitions.

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