

## **NUTRITION KNOWLEDGE AND CUSTOMERS PERCEPTION TOWARDS KAFETERIA SIHAT PROGRAM IN KOTA KINABALU PUBLIC HEALTHCARE FOODSERVICE**

Aizul Azri Azizan, Dg Khairunisa Ahmad Sapawi and Cheah Yuen Kuan  
Faculty of Food Science and Nutrition, Universiti Malaysia Sabah

Email: aizul83@ums.edu.my

### **ABSTRACT**

*Ministry of Health has launched Kafeteria Sihat all public hospital in Malaysia to educate people and intervention of health promotion. This research focuses on nutrition knowledge of customers and their perception towards Kafeteria Sihat on the aspects of food and drinks quality. Using convenience sampling, 4 public healthcare institution were choose and identified as nutrition knowledge and perceptions among customers as predictors of Kafeteria Sihat efficiency for its purpose of establishment. Customer's perception on healthy food categories showed the way of serving food with gravy separately and food prepared with low-fat milk were the most preferred (45.9%). However, customers have responded neutral about the level of salty foods (38.8%), the diversity of healthy drinks (39.9%) and healthy (39.9%) were sold in the Kafeteria Sihat and beverages made with low-fat dairy such as teh tarik (39.3%). However, the result reveals on healthy quality categories, the "food seem less oily" (36.9%) which gives an indication that the perception on food sold were oily and fatty foods. Most customers agree that the nutrition information should be provided in the Kafeteria Sihat (52.5%) and it gives awareness to the style of eating healthy (54.6%) while the poster gives information to the customers on nutrition (54.9%). Calorie labeling on food is considered as a good reference source (54.9%) and nutritional information displayed on Kafeteria Sihat is easy to understand (54.4%). Nutritional knowledge of customers Kafeteria Sihat considered being very good. The findings of this research could be useful for the public healthcare authorities to consider the efficiency of the implementation of Kafeteria Sihat and improve the intervention program for health promotion*

**Keywords:** Nutrition, customer perception, food service

## **1.0 INTRODUCTION**

Food consumption pattern has changed drastically over the past decade. The country's economy, the fast food industry growth and change in the attitude of the people in the diet contributed to the habit of eating outside the home. The fast food industry has been developing rapidly led to an unhealthy diet to consumers due to busy with work and the availability of food that can be obtained in a short time. The study estimates that the global urbanization occurs quickly where 56 percent of the population around the world will be urban by 2015 and one of the impacts of urbanization is the lifestyle of inactivity and intake of food will tend to fast food (Euromonitor International, 2005).

The main health problems resulting from unhealthy lifestyles are known as non-communicable diseases (NCD). NCD are a global problem and is still increasing at an alarming rate. Poor diet also contributes to intermediate risk factors such as obesity, lipid levels and blood sugar, and blood pressure that drive the incidence of NCD. Therefore, the National Strategic Plan for Non-Communicable Diseases in 2010-2014 (NSP-NCD) was established by the Ministry of Health (MOH) to provide guidelines for each member of the community in order to address NCD together.

Kafeteria Sihat is one of the intervention program contained in the first strategy, namely prevention and promotion of health (MOH, 2010). It is a community-based health program that aims to increase access to healthy food and promote healthy eating style (MOH, 2012b). As discussed before, eating out has become a way shown in the present society. Therefore, the supply of food and drink healthy through food outlets are cheap, especially in public institutions such as schools, facilities for study and work (Mustapha, 2014b), improving access to healthy food at a price that does not charge for promoting a healthy eating in the community (Mustapha, 2014a).

## **2.0 LITERATURE REVIEW**

Definition of Non-communicable diseases (NCD), also known as chronic illness that lasts for a long time and slowly not spreading from person to person. Four major types of NCDs include cardiovascular disease, cancer, respiratory diseases and diabetes (WHO, 2014). There are two types of risk factors that contribute to NCD risk factor behaviors can be modified and physiological risk factors. Risk factors in terms of behaviors that can be modified include

smoking, sedentary lifestyle, poor diet and excessive alcohol use. These factors can be controlled by the individual and can be changed and prevent the occurrence of NCD. Physiological factors also known as the intermediate to NCD as it involves changes in metabolism such as increased blood pressure, obesity or overweight, increased levels of glucose in the blood and increased levels of lipids in the blood that will contribute directly to NCDs (WHO, 2014) ,

Kafeteria Sihat is one of the lifestyle intervention program community-oriented strategies contained in the first NSP-NCD. All cafeterias at MOH health facilities is required certified Kafeteria Sihat within 1 year from the date of the circular is effective (MOH, 2012).

Kafeteria Sihat is one of the premises for preparing, cooking, serving and selling food that is nutritious, clean and safe by adhering to the principles of good hygiene practices and promote the principles of healthy eating practices and created as One Stop Centre, not only provide food, clean, safe (Noor, 2014) and nutritious but also used to promote healthy eating through various means of health education such as health information and weighing weight (MOH, 2012b).

As shown in the study by F Geaney et al. (2011), intervention measures similar to Kafeteria Sihat used to show its impact on nutrient intake of salt and other workers at the workplace. Renovation of the low-fat menu and serving of food with a separate sauce has shown a reduction in the intake of salt, fat, energy, and sugar workers.

Food labeling is one way that is often used to influence consumers to eat healthily with major food shows information such as calorie and nutrient content of the other macro. In the cafeteria healthy, nutrition labeling information carried in every type of cuisine is served. Labelling information malnutrition in every cuisine can help customers plan and choose foods that are appropriate to their diet (Turconi, Bazzano, Roggi and Cena, 2011; Bandoni et al., 2010; Sonnerberg et al. (2013),). Based on studies conducted by Sonnerberg et al. (2013), food labeling improve customer awareness of nutrition information and are more likely to buy healthy food compared with those who did not notice the food label. Therefore, label nutrition information is an important tool to promote healthy eating style (Cannoosamy et al. 2014). Labelling of food substances by using the "traffic light" is becoming increasingly well-known and often used to influence the eating habits of users. As a study conducted by Sonnenberg et al. (2013), the use of food labeling that classifies foods into three groups of different colors help the customer to choose healthy food color coded based on the food. Turconi et al. (2011) also stated that the use of nutritional information in cafeterias in the form of a pyramid colored by

dividing the type of food offered in the cafeteria in their respective categories according to color and space in the pyramid, has been well received by the customer to design a balanced diet. When introduced to the concept of healthy eating target groups, it is important to understand the concept of the respondents expect before they can accept and practice in daily life. In the context of Kafeteria Sehat, users need to be exposed before the concept of healthy eating styles so that they are aware of its existence, before they can use to assess their understanding, combined with other information, and then make a selection of food (Grunert et al., 2010). Intermediate knowledge of nutrition are factors that affect the level of understanding (Grunert et al., 2010) to the concept of healthy eating style and customer perception of the food offered. Users must obtain prior knowledge can use this knowledge in everyday practice. For example, users need to be educated about food labels before they can use in everyday purchases (Cannoosamy et al., 2014). Most studies have focused on the impact of the intervention of the various aspects of the target user (Stubenitsk et al., 1999; Turconi et al., 2011; Kushida et al., 2014; Geaney et al., 2011; Sonnenberg, et al., 2013) but rarely assess the level of consumer understanding of these factors.

At the international level, the International Conference on Nutrition (ICN), which is under the auspices of the Food and Agriculture Organization (FAO) has said for the past 20 years the business has focused on educational actions nutrition to achieve the delivery of information through a variety of methods communication to provide skills for the consumer to act on the information provided, and provide an environment that allows food to come (Hawkes, 2013). Nutrition education can be done in any place including the preparation and sale of food and dining, restaurant, school, work or hospital. The focus was on a number of issues of Food Based Dietary Guidelines, the style of eating healthily, taking fruits and vegetables, foods that have "exceeded" and "reduced", salt, and also food labeling (Hawkes, 2013).

Campaign fruits and vegetables have been organized in various countries. For example, the campaign "Go for 2 & 5" in Australia have described the positive impact on the knowledge of the consumption of fruits and vegetables recommended after three years and has a correlation with the increase in the consumption of servings of fruits and vegetables a day (Hawkes , 2013; Carter et al., 2011).

Consumer perception of the public health program is essential to provide proper information to the government in determining policy and nutrition education program launch. As proposed in the review of the National Obesity Observatory (NOO,2011), more than 90 percent of respondents in the UK who have the perception that healthy eating is associated with a reduction in fat, saturated fat, sugar and salt, limiting food grains, fruits and vegetables in

excess, drink lots of water and a balanced diet. While in Hong Kong, the perception of youth to eat healthy lifestyle is a balanced diet and eats at the time of (Chan et al., 2009). Therefore, the perception is individual in nature and do not have a sure and certain patterns. Thus, the perception of consumers is important to be reviewed to reflect the level of acceptance or views of any programs. Evaluation of customer perception allows researchers to analyze the trend toward a concept or program. In this study, customers' perceptions of Kafeteria Sihat allows researchers to determine the level of their confidence in the use of nutrition education in the Kafeteria Sihat and also answer the question of whether the customer is aware that the food supplied is healthy. Theorized by Norrie Din et al. (2012) on customers' perceptions of nutrition labeling on restaurant menus in Malaysia, the study suggests that information such as calories, protein, fat and fiber is the information that customers seem necessary on the menu (Din et al., 2012). Therefore, it allows the restaurant to find understanding, opinion and attitude toward customers introduced to their menu. This is important for business improvement in the future because changes are customer-oriented in which their effectiveness can be enhanced due to the nature of the tools. Kafeteria Sihat style launched to foster healthy eating among the public. That being the case, to allow customers to accept the concept of Kafeteria Sihat and practicing how to make changes to their diet, they need to be understood first.

### **3.0 METHODOLOGY**

There are four hospitals in Kota Kinabalu that has gained recognition Kafeteria Sihat namely Hospital for Women and Children Sabah (HWKKS), Queen Elizabeth Hospital 1 Hospital Queen Elizabeth 2, and Hospital Mesra Bukit Padang (MBP) (Abdullah, 2014). This study aims to determine the level of nutritional knowledge and customer perception of a Kafeteria Sihat, all customers who visit the Kafeteria Sihat and never eat there at least once to be included in the study. Customer's adults aged 18 and over are the target group in this study, and the type of customers consisting of hospital staff (doctors, nurses, other staff employed by the hospital), visitors, patients and Kafeteria Sihat food handlers. For MBP, patient groups are not included in this study due to mental illness. This study is cross-sectional, which aims to provide an overview on customers' perceptions of the recently launched Kafeteria Sihat.

#### 4.0 RESULTS AND DATA ANALYSIS

From the total 400 questionnaires distributed, there was only 366 were deemed usable for analysis. The number of completed surveys obtained was unequal (refer to table 1) due to the different cafeteria capacity.

**Table 1.1:** Number of obtained usable surveys from selected location

| <b>Hospital</b>             | <b>Number of obtained surveys</b> |
|-----------------------------|-----------------------------------|
| Queen Elizabeth hospital I  | 113                               |
| Queen Elizabeth hospital II | 100                               |
| Likas hospital              | 120                               |
| HMBP                        | 33                                |
| <b>Total</b>                | <b>366</b>                        |

The demographic profile of the respondents were included in this study. From 366 respondents, 73.2% were female (n= 268) and 26.8% were male (n=98). It shows that there is an imbalance of gender group. In terms of age, the respondent's age were within the range of 18 to 57 where the age min is 28.5 years old. Most of the respondents were from Kadazandusun ethnic group (34.7%, n=127). It was followed by "Others" (30.1%, n=110). For "Others", the respondents were from other indigenous Sabah ethnic group and foreigners from Brunei. Indian was the least represented in this study (1.1%, n=4).

There was 50.8% (n=186) of the respondents who work as civil officers. The second largest group was "Student" about 29.8% (n= 109) from the total respondents. For "Private sector" and "unemployed", both represented by 14.8% (n=54) and 2.7% (n=19) respectively. However for "Others", 1.9% (n=7) from the total respondents had not specified their occupation in the survey. For the education level, most of the respondents were graduates from tertiary institutions (74.9%, n=247). There were 23% (n= 84) were in "secondary school" level and 1.6% (n=6) were in "primary school" level. There was only 0.5% (n=2) of the respondents who did not have any education qualification.

Majority of the respondents were hospital employees (67.8%, n= 248). It was seconded by "Visitor" with 24.3% (n=89), who were usually the members of the family to the residing patients. 4.9% (n=18) of the total respondents were patients who underwent regular health

check-ups. As for "Food handler", there was only 3% (n=11) who worked in the institution's *Kafeteria Sihat*.

**Table 1.2:** Respondents' demographic data

| <b>Demographic characteristics</b> | <b>n</b> | <b>Percentage (%)</b> |
|------------------------------------|----------|-----------------------|
| <b>Ethnic group</b>                |          |                       |
| Kadazandusun                       | 127      | 34.7                  |
| Others                             | 110      | 30.1                  |
| Malay                              | 98       | 26.8                  |
| Chinese                            | 27       | 7.4                   |
| Indian                             | 4        | 1.1                   |
| <b>Occupation</b>                  |          |                       |
| Civil officer                      | 186      | 50.8                  |
| Student                            | 109      | 29.8                  |
| Private sector/ self-employed      | 54       | 14.8                  |
| Unemployed                         | 10       | 2.7                   |
| Others                             | 7        | 1.9                   |
| <b>Education level</b>             |          |                       |
| Tertiary institutions              | 274      | 74.9                  |
| Secondary school                   | 84       | 23.0                  |
| Primary school                     | 6        | 1.6                   |
| None                               | 2        | 0.5                   |
| <b>Identity</b>                    |          |                       |
| Hospital employee                  | 248      | 67.8                  |
| Visitor                            | 89       | 24.3                  |
| Patient                            | 18       | 4.9                   |
| Food handler                       | 11       | 3.0                   |

For analysis of customer perception on beverages and food from *Kafeteria Sihat* (refer to table 1.3), 168 (45.9%) of the respondents agreed on the usage of healthier ingredient substitutes, which in this case low fat milk, in the preparation of gravies or soups. 150 (41%) respondents did believe that they can lessen calorie intake by separating servings of gravies or soups from main dishes. However, 39.9% (n= 146) of the respondents were uncertain whether the establishment's offering of beverages and food were healthy. It is almost the similar result (39.3%, n=144) on liking the taste of drinks made with low fat milk despite the percentage of response on the item 1. There was about 38.8% (n=142) of the respondents were indifferent on exclaiming the food served is not too salty. For item 7, it was about 36.9% (n=135) disagreed response obtained on the food served in *Kafeteria Sihat* is less oily.

**Table 1.3:** Customer perception on food and beverage in *Kafeteria Sihat*

| Item | Statement  | Mod | n   | Percentage (%) |
|------|--|-----|-----|----------------|
| 1    | I can accept gravies and soups cooked with low fat milk instead of coconut milk (Eg. Low fat curries)  | 4   | 168 | 45.9           |
| 2    | I like to separate the serving of gravy or soups from my main dish as it can lessen my calorie intake. | 4   | 150 | 41.0           |
| 3    | I feel that the variety of beverages sold here are healthy.  | 3   | 146 | 39.9           |
| 4    | I feel that the variety of food sold here are healthy.   | 3   | 146 | 39.9           |
| 5    | I feel that drinks made with low fat milk taste good.  | 3   | 144 | 39.3           |
| 6    | I feel that the food is not too salty.   | 3   | 142 | 38.8           |
| 7    | I feel the food sold here is less oily.  | 2   | 135 | 36.9           |

From Table 1.4, it shown that the *Kafeteria Sihat* customer's level of knowledge on nutrition was high as it was indicated in the "Excellent" category (67.2%, n= 246). The "Good" category obtained 25.4% (n=93) and "Average" category with 3% (n=11). For the category of "Poor" and "Very poor", both obtained low percentages of 1.9% (n=7) and 2.5% (n=9) respectively.

**Table 1.4:** *Kafeteria Sihat* customer knowledge level

| Knowledge level category | n   | %    |
|--------------------------|-----|------|
| Excellent                | 246 | 67.2 |
| Good                     | 93  | 25.4 |
| Average                  | 11  | 3.0  |
| Poor                     | 7   | 1.9  |
| Very poor                | 9   | 2.5  |

**Table 1.5:** Comparison of knowledge level according to type of customer

| Knowledge level category | Type of customers, n(%) |           |           |              |
|--------------------------|-------------------------|-----------|-----------|--------------|
|                          | Hospital employee       | Patient   | Visitor   | Food handler |
| Good                     | 236 (95.2)              | 15 (83.3) | 78 (87.6) | 10 (90.9)    |
| Average                  | 3 (1.2)                 | 1 (5.6)   | 6 (6.7)   | 0 (0)        |
| Poor                     | 9 (3.6)                 | 2 (11.1)  | 5 (5.6)   | 1 (9.1)      |

The result from Chi-Square test had shown that there was no significant difference between knowledge level and type of *Kafeteria Sihat* customers due to the  $X^2$  likelihood ratio (6, n=366)=11.156 (p=0.084). Spearman's rank-order correlation analysis was used to test on the relationship of customers' nutrition knowledge with the practice in applying nutrition information.



From Table 1.6, the analysis found that there was one statement, which “Providing food calorie labels is important to me in planning my diet” had shown correlation with healthy nutrition knowledge levels ( $r^2 = 0.119$ ,  $p = 0.023^*$ ). With Spearman's rank-order value of  $r(366) = 0.119$  ( $p < 0.05$ ), it indicated that there was a relationship on nutrition knowledge with diet planning by using food calorie labels. Thus, as the customer nutrition level value goes higher, it will increase the preferences of using food calorie labels in their diet planning.

**Table 1.6:** Relationship between customer nutrition knowledge levels with the application of nutrition information

| Application of nutrition information practices   | Customer nutrition knowledge |         |
|--|------------------------------|---------|
|  | rs                           | P Value |
| Providing food calorie labels is important to me in planning my diet                           | 0.119                        | 0.023*  |
| I choose my food based the calorie displayed   | -0.026                       | 0.624   |
| I am confident with the use of food calorie labels   | -0.044                       | 0.405   |
| I always check on food labels every time I purchase ready-to-drink beverages.                  | 0.059                        | 0.256   |
| I always referring to health information corner to read information related to eating healthy. | -0.016                       | 0.767   |

## 5.0 DISCUSSION AND CONCLUSION

These results show that consumer perception on the food and beverage served in public healthcare's *Kafeteria Sehat do* represent minor effect for the cafeteria in creating the awareness of eating healthy. According to Stunbenitsky et al. (2011), the reduction of fat in recipes is not significantly affect the sensory appeal of a dish. This corresponds to the customers' acceptance on the substitution of coconut milk with low fat milk into gravies or soups. The taste quality of beverages, however, does depend on the serving temperature. Drinks or foods that are served warm tend to intensify the flavor of bitterness and sweetness than they are served cold (Green, 1993). Hence, the consumers' feeling of uncertainty toward the taste quality of drinks made with low fat milk. This is also seen on the reaction to the intensity of saltiness and creaminess taste profiles as most of the dishes are served hot. Another aspect that needs to be taken into consideration is the customer's food preferences. The matter of preferences is also guided by the consumer's familiarity towards food or drink as well as taste that he or she has acquainted with during their lifetime (Fischer and Frewer, 2009; Vabø and Hansen, 2014). It is unavoidable for common Malaysian dishes to be served in this

premise and most the local fare is heavy with fat, sugar or salt content. Consequently, the availability of food calorie labels in this study is not significantly influence the consumers' intention on what to consume.

Food calorie labelling is a recent foodservice trend on healthy food choices. From the analysis, it can be concluded that customers need the food calorie labels to plan their diet effectively. Roberto *et al.* (2010) affirmed that menu labelling has the influence on customer's food choices especially toward the decision of calorie intake per day. In addition, the encouragement of food calorie labelling usage in public healthcare foodservices will be a good intervention tool in promoting healthy food selection.

The Malaysia Ministry of health, with the aid of other government and non-governmental bodies, has always provided nutrition awareness and health interventions programs to the public since 2006 (Kementerian Kesihatan Malaysia, 2014). These programs are introduced at as early as in primary school up until the targets reach their senior years. This reflects on the importance of continuous exposure on interaction factors to guaranteed consumer awareness to the consequences as stressed by Grunert *et al.* (2010). As a result, the public has become aware and knows at a certain point that they are able to determine which food to take in accordance to a healthy diet. The nutrition information available in *Kafeteria Sihat* is intended to remind constantly to the public on practices of eating healthy. However, the impact of the information is still minor as those who are either visiting warded relatives or seeking medical services from these healthcare institutions often access it.

With knowledge of proper nutrition in hand, public healthcare foodservice customers are capable to practice healthier food habits despite the limitation of information reach. It is a proof that the step taken to create this awareness has somehow affected the attitude on proper calorie intake. This intervention tool, nevertheless, can become effective with wider offerings of fruit and vegetable servings, wholesome and nutritious menu selections and application of food calorie labelling to all of its menu items.

## **REFERENCES**

- Bandoni, D.H., Sarno F. & Jaime, P.C. 2010. Impact of an intervention on the availability and consumption of fruits and vegetables in the workplace. *Public Health Nutrition*. 14(6): 975-981.
- Cannoosamy, K., Gunsam, P.P & Jeewon, R. 2014. Consumer knowledge and attitudes toward

- nutritional labels. *J Nutr Educ Behav.* 46:334-340.
- Carter, O. B., Pollard, C. M., Atkins, J. F., Marie Milliner, J. & Pratt, I. S. 2011. "We're not told why- we're just told": qualitative reflections about the Western Australian Go for 2&5 fruit and vegetable campaign. *Public Health Nutr.* 14(8): 982-988.
- Chan, K., Prendergast, G., Grønhøj, A & Larsen, T.B. 2009. Adolescents' perceptions of healthy eating and communication about healthy eating. *Health Education.* 109(6):474-490.
- Din, N., Mohd Zahari, M.S. & Mohd Shariff, S. 2012. Customer Perception on Nutritional Information in a Restaurant Menu. *Procedia-Social and Behavioral Sciences.* 42:413-421
- Euromonitor International. 2005. The Shift to Towns & Out Again: Urbanisation and Ruralisation Patterns to 2015. Dlm. <http://www.portal.euromonitor.com/portal/analysis/tab>. 2 Jun 2015.
- Fischer, A.R.H. and Frewer, L.J. 2009. Consumer familiarity with foods and the perception of risks and benefits. *Food Quality and Preferences*, 20 (8), p. 576-585.
- Geaney, F., Harrington, J., Fitzgerald, A.P. & Perry, U. 2011. The impact of a workplace catering initiative on dietary intakes of salt and other nutrients: a pilot study. *Public Health Nutrition.* 14(8):1345-1349.
- Green, B.G. 1993. Heat as a factor in the perception of taste, smell, and oral sensation. *Nutritional Needs in Hot Environments: Application for Military personnel in field operation.* National Academy of Sciences.
- Grunert, K.G., Wills, J.M. & Celemin. L.F. 2010. Nutrition knowledge, and use and understanding of nutrition information on food labels among consumers in the UK. *Appetite.* 55:177-189.
- Hawkes, C. 2013. Promoting healthy diets through nutrition education and changes in the food environment: an international review of actions and their effectiveness. *Food and Agriculture Organization (FAO).*
- Kementerian Kesihatan Malaysia. 2014. Pelan tindakan pemakanan kebangsaan Malaysia (NPAMN). Portal Rasmi: Bahagian PEmakanan, KEmenterian KEsihatan Malaysia. Retrieved online: [nutrition.moh.gov.my/pelan-tindakan-pemakanan-kebangsaan-malaysia-npanm/](http://nutrition.moh.gov.my/pelan-tindakan-pemakanan-kebangsaan-malaysia-npanm/)
- Kushida, O. & Murayama, N. 2014. Effects of Environmental Intervention in Workplace Cafeterias on Vegetable Consumption by Male Workers. *Journal of Nutrition Education and Behavior.* 46(5):350-358.
- Mustapha, F.I. 2014a. Overview on Obesity, Aetiology and Epidemic in Malaysia: How Serious is the problem?. Slaid. Disease Control Division. Ministry of Health Malaysia.
- NOO (National Obesity Observatory). 2011. Knowledge and attitudes toward healthy eating and physical activity: what the data tell us. England: Solution for Public Health.

- Noor, M.I. 2014. Public health nutrition issues and interventions in Malaysia. Slaid. Nutrition Society of Malaysia Scientific Conference. Kuala Lumpur.
- Roberto, C.A., Larsen, P.D., Agnew, H., Baik, J. and Brownell, K.D. 2010. Evaluating the impact of menu labeling on food choices and intake. *American Journal of Public Health*, 100 (2), p. 312-318.
- Sonnenberg, L., Gelsomin, E., Levy, D.E., Riis, J., Barraclough, S. & Thorndike, A.N. 2013. A traffic light food labeling intervention increases consumer awareness of health and healthy choices at the point-of-purchase. *Preventive Medicine*. 57:253-257.
- Stubenitsky, K., Aaron, J.I., Catt, S.L. & Mela, D.J. 1999. The influence of recipe modification and nutritional information on restaurant food acceptance and macronutrient intakes. *Public Health Nutrition*. 3(2):201-209.
- Turconi, G., Bazzano, R., Roggi, C. & Cena, H. 2011. Helping consumers make a more conscious nutritional choice: acceptability of nutrition information at a cafeteria. *Public Health Nutrition*. 15(5):792-801.
- Vabø, M. and Hansen, H. 2014. The relationship between food preferences and food choice: A theoretical discussion. *International Journal of Business and Social Science*, 5 (7), p. 145-157
- World Health Organization. 2013. *Global Action Plan for the Prevention and Control of Noncommunicable Disease 2013-2020*. WHO: Switzerland.