



UNIVERSITI PUTRA MALAYSIA

***COMPARISON OF DIETARY PRACTICES BETWEEN OVERWEIGHT
AND NORMAL WEIGHT CHILDREN AT PUCHONG, SELANGOR***

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AND NORMAL WEIGHT CHILDREN IN PUCHONG, SELANGOR**

BY

SHAMINI A/P CHANDRASEE KHARAN

A project submitted as a partial fulfilment of the requirement for the degree of
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In Asia, Malaysia is one of the countries that have high prevalence of overweight and obesity. Obesity during childhood is highly related to adult obesity later on. This study aimed to compare dietary practices (energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, and fast food consumption) between 117 overweight (OW) and 117 normal-weight (NW) children. There were two phases in this study. In Phase I of the study, body weight status screening on 10-11 years old children was done to determine the overweight and normal-weight. Body weight and height were measured. In Phase II of the study, overweight and normal-weight children were matched by age, gender and ethnicity, and comparison of dietary practices were conducted between these two groups. Children completed the Eating Behaviour Questionnaire (EBQ), Children Eating Attitudes Test (ChEAT) and two-day 24-hour dietary recall. The prevalence of overweight and obesity was 35.6%. The total energy intake of OW children (2077 ± 753) was higher than NW children (1808 ± 650 , $p < 0.001$). OW children achieved recommended nutrient intake (RNI) compared to NW children in protein, vitamin C, thiamine and niacin intakes ($p < 0.05$). However, almost half of the children (OW: 54.3%; NW: 43.6%) under-reported their energy intake ($p = 0.295$). About one-third (OW: 37.1%; NW: 33.7%) had disordered eating, and no difference was found in mean ChEAT score between OW (17.89 ± 11.55) and NW (17.15 ± 12.00) children ($p = 0.657$). Majority of the children snacked at morning tea (OW: 4.14 ± 2.25 days/week and NW: 4.40 ± 2.30 days/week, $p = 0.386$), having their meals with family members (OW: 88.0%; NW: 83.6%, $p = 0.063$) and seldom consumed fast food (OW: 1.95 ± 1.44 day/week and NW: 2.29 ± 1.60 day/week, $p = 0.093$). Overall, overweight and obesity were likely influenced by dietary practices in total energy intake, macronutrients and micronutrients intake. Hence, promoting healthy dietary practices should be incorporated in the future obesity prevention programs among children. Future studies should focus on determining factors associated with misreporting of nutrient intake in overweight and normal-weight children.

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In Asia, Malaysia is one of the countries that have high prevalence of overweight and obesity. Obesity during childhood is highly related to adult obesity later on. This study aimed to compare dietary practices (energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, and fast food consumption) between 117 overweight (OW) and 117 normal-weight (NW) children. There were two phases in this study. In Phase I of the study, body weight status screening on 10-11 years old children was done to determine the overweight and normal-weight. Body weight and height were measured. In Phase II of the study, overweight and normal-weight children were matched by age, gender and ethnicity, and comparison of dietary practices were conducted between these two groups. Children completed the Eating Behaviour Questionnaire (EBQ), Children Eating Attitudes Test (ChEAT) and two-day 24-hour dietary recall. The prevalence of overweight and obesity was 35.6%. The total energy intake of OW children (2077 ± 753) was higher than NW children (1808 ± 650 , $p < 0.001$). OW children achieved recommended nutrient intake (RNI) compared to NW children in protein, vitamin C, thiamine and niacin intakes ($p < 0.05$). However, almost half of the children (OW: 54.3%; NW: 43.6%) under-reported their energy intake ($p = 0.295$). About one-third (OW: 37.1%; NW: 33.7%) had disordered eating, and no difference was found in mean ChEAT score between OW (17.89 ± 11.55) and NW (17.15 ± 12.00) children ($p = 0.657$). Majority of the children snacked at morning tea (OW: 4.14 ± 2.25 days/week and NW: 4.40 ± 2.30 days/week, $p = 0.386$), having their meals with family members (OW: 88.0%; NW: 83.6%, $p = 0.063$) and seldom consumed fast food (OW: 1.95 ± 1.44 day/week and NW: 2.29 ± 1.60 day/week, $p = 0.093$). Overall, overweight and obesity were likely influenced by dietary practices in total energy intake, macronutrients and micronutrients intake. Hence, promoting healthy dietary practices should be incorporated in the future obesity prevention programs among children. Future studies should focus on determining factors associated with misreporting of nutrient intake in overweight and normal-weight children.

**PERBANDINGAN AMALAN PEMAKANAN ANTARA KANAK- KANAK
BERLEBIHAN BERAT BADAN DENGAN KANAK- KANAK BERAT
BADAN NORMAL DI PUCHONG, SELANGOR**

SHAMINI A/P CHANDRASEE KHARAN

Di Asia, Malaysia merupakan satu negara yang mempunyai prevalens berat badan berlebihan dan obesiti yang tinggi. Obesiti sejak kanak- kanak adalah sangat berkaitan dengan obesiti apabila dewasa nanti. Kajian ini bertujuan untuk membandingkan amalan pemakanan (pengambilan tenaga, pengambilan macronutrien dan micronutrien, pengamalan makanan yang tidak sihat, pelangkauan pengambilan makanan, pengambilan snek, pengambilan makanan bersama keluarga, pengambilan makanan segera antara 117 kanak- kanak berlebihan berat badan (OW) dan 117 kanak- kanak berat badan normal (NW). Terdapat dua fasa dalam kajian ini. Dalam fasa pertama, kanak- kanak berumur 10- 11 diukur untuk menentukan berat badan kanak- kanak berlebihan dan berat badan normal di sekolah rendah. Berat badan dan ketinggian telah diukur. Dalam fasa kedua, kanak- kanak berat badan berlebihan dan kanak- kanak berat badan normal telah dipadankan mengikut umur, jantina dan etnik dan perbandingan amalan pemakanan antara dua kumpulan ini telah dijalankan. Kanak- kanak melengkapkan *Eating Behaviour Questionnaire* (EBQ), *Children Eating Attitudes Test* (ChEAT) and *24-hour dietary recall* untuk dua hari. Prevalens berat badan berlebihan dan obesiti untuk kajian ini adalah 35.6%. Jumlah pengambilan tenaga kanak- kanak OW (2077 ± 753) adalah tinggi berbanding kanak-kanak NW (1808 ± 650 , $p < 0.001$). Kanak- kanak OW mencapai pengambilan nutrien disarankan berbanding kanak- kanak NW dalam pengambilan protein, vitamin c, thiamin dan niasin ($p < 0.05$). Namun, sebahagian besar kanak- kanak OW (54.3%) melaporkan pengambilan tenaga mereka kurang berbanding dengan kanak- kanak NW: (43.6%, $p = 0.295$). Satu pertiga (OW: 37.1%; NW: 33.7%) mempunyai pengambilan makanan yang tidak sihat dan min ChEAT tidak mempunyai perbezaan ketara antara kanak- kanak OW (17.89 ± 11.55) dan kanak- kanak NW (17.15 ± 12.00 , $p = 0.657$). Majoriti (OW: 4.14 ± 2.25 days/week and NW: 4.40 ± 2.30 days/week, $p = 0.386$) mengambil makanan bersama ahli keluarga dan pengambilan makanan segera adalah paling jarang (OW: 88.0%; NW: 83.6%, $p = 0.063$). Pendek kata, berat badan berlebihan dan obesiti mungkin dipengaruhi oleh amalan pemakanan dimana dalam jumlah tenaga, dan pengambilan macronutrien dan micronutrien. Oleh itu, amalan pemakanan sihat perlu digalakkan dalam program- program pencegahan obesiti di kalangan kanak- kanak pada masa depan. Kajian lanjutan perlu memberi fokus kepada faktor- faktor yang dikaitkan dengan salah lapor pengambilan nutrien dalam kanak- kanak berlebihan berat badan dan kanak- kanak berat badan normal.

CHAPTER 1

INTRODUCTION

1.1 Background

Childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years (Ogden et al., 2006). This common nutritional problem rapidly occurred in the developed countries, while its prevalence is increasing in developing countries as well (Sharifah et al., 2012). The global epidemic of overweight and obesity is one of the major public health concerns in children.

A nationally representative Kuwaiti survey in 2006 among 2,312 children found that about 44.0% of boys and 46.0% of girls aged 10 to 14 years old were obese (Ng et al., 2011). In Buenos Aires' public schools at Argentina, among 1,688 children

aged between 10 to 11 years old found that 35.0 % of the children were overweight (Kovalskys et al., 2011). Different cut-off points using varied criteria in defining overweight and obesity has made the comparison between countries considerably difficult. In Asia, the prevalence of overweight children aged between 10 to 12 years in Singapore was about 22.5% (Sabanayagam et al., 2009). Indonesia reported that the prevalence of overweight (BMI =85th percentile) children aged between 8 to 10 years from an urban area was 15.3% among girls and 17.8% among boys (Soekiran et al., 2002). In Manila, Philippines, as high as 24.9% of private school children and 5.8% of public school children were at risk of being overweight (BMI at 85th percentile) (Florentino, 2002).

In Malaysia between 2001 and 2002, Mohd Ismail et al. (2009) found that 10.5% and 5.9% of school children aged 6 to 12 years old were overweight and obese. Furthermore, 21.8% of children aged 10 to 12 years were overweight in Kuala Selangor (Sumarni et al., 2006). However, the National Health and Morbidity Survey III (2011), which is based on the CDC 2000 reference (weight for age), estimated the overweight prevalence among children aged 7 to 13 years was 5.9% to 6.8% (IPH, 2011). In developing countries such as Malaysia, more occurrences of overweight and obesity was detected among children and adolescents, which are fundamentally related to changes in physical activity and eating habits (Anuar Zaini, 2005). An unbalanced diet due to excessive intake of calories and nutrients is closely related to a higher prevalence of overweight and obesity, while a balanced diet should provide adequate energy, macro- and micro-nutrients (Herrera et al., 2003).

Higher prevalence of childhood obesity indicates that serious attention is needed (Rampal et al., 2007). Childhood obesity is often linked with significant impact on physical and psychological wellbeing. Overweight and obese children are at risk for developing medical problems that affect their present and future health and quality of life including high blood pressure, high cholesterol and abnormal blood lipid levels, insulin resistance, type 2 diabetes, tendency to mature earlier and depression (IPH, 2011). In addition, overweight and obesity may lead to increase in health care cost associated with prevention, diagnosis and treatment (Ogden et al, 2006). In the United States, \$75 billion was estimated for obesity-attributable health care expenditure (Finkelstein, Fiebelkorn, & Wang, 2004). Overweight and obesity were associated with decreased productivity due to morbidity and mortality as well (Sichieri, do Nascimento & Coutinho, 2007).

1.2 Problem statement

Childhood overweight and obesity are increasing worldwide. Childhood is one of the critical periods in the development of obesity. Ismail (2002) stated that obesity in childhood showed the highest rate of impact to obesity later adulthood. Approximately 80% of obese children and adolescents who were at age of 10-15 years were more likely become obese in adulthood at age of 25 years (Ismail, 2002). If overweight begins before 8 years of age, 25% of obesity in adulthood is likely to be more severe. The childhood obesity is related to adult obesity (Wang and Popkin, 2000).

In the Asia, Malaysia is one of the countries have a higher prevalence of overweight and obesity (WHO, 2002). The National Health and Morbidity Survey (NHMS) 2011 reported that among states in Malaysia, Selangor has a high prevalence of childhood obesity where the prevalence was 7.3% (7-12 years old). The prevalence of childhood obesity was higher in urban area (6.5%) compared to rural area (5.5%). Therefore, high prevalence of overweight and obesity might due to poor weight management and compliance of dietary practices (Moy et al., 2006).

The dietary practices mainly reflect in food preferences, eating behaviour and caloric intake (Maddah & Nikooyeh, 2009). Arnett et al. (2005) stated that the main cause higher prevalence of overweight and obesity was relates to poor dietary habits, inactivity or a combination of these factors. There were few journals available about dietary practices mainly on energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, and fast food consumption.

According to Ismail (2002), nutrition transition of meal consumption from high in complex carbohydrates diet into energy dense food and refined carbohydrates diet is important determinant of obesity. In addition, having frequent meals with family protects against low grade point scores, depressive symptoms and suicidal thoughts (Eisenberg et al., 2007). Children who have regular family meals (> 3 times/week) are more likely to have normal weight, healthier dietary and eating patterns (Hammons &

Fiese, 2011) and healthful eating behaviour 5 years later (Fulkerson et al., 2008). This shows that children who have proper meal time and took regular meal family grown up healthily compared to children who not as they get enough supply of dietary intake.

Besides, meal skipping is a common behaviour among children. Meal skipping increases as children try to sleep longer in response to early school start times, try to lose weight through calorie restriction, and their lives become busier (Eisenberg et al., 2007). Breakfast is the most commonly skipped meal, especially among female (Murphy et al., 1998). Breakfast skipping has been associated with poor health outcomes including higher body mass index (BMI), poorer concentration and school performance, and increased risk of inadequate nutrient intake, especially calcium and fiber (Rolfes et al., 2006).

Snacking defines as a portion of food often smaller than a regular meal, generally eaten between main meals (de Graaf, 2006). Moreover, snacking is a general feature of the diet of children. Unfortunately, food choices made by children for snacking tend to be high in sugar, sodium and fat, while relatively low in vitamins and minerals (Kerr et al., 2009). Indeed, there was evidence from local studies that children were consuming too many unhealthy snacks such as crisps, chocolates, sweets, and sugared fizzy drinks and not consuming enough fruits and vegetables as their snacking meal (Soo et al., 2011). Fast food options such as pizzas, fried chicken, burgers, and hot dogs were gaining popularity among adolescents, possibly because of their taste, convenience and the influence of peers (Subratty et al., 2007). Bowman et al. (2004)

reported that children who consumed fast food had higher intakes of energy, fat, carbohydrate, added sugars and sugar-sweetened beverages than those who did not consume fast food.

Portion sizes of less healthy foods and beverages have increased over time in restaurants, grocery stores, and vending machines. Children eat more without realizing it if they are served larger portions (Rolls et al., 2000). This was meant they were consuming extra calories, especially when eating high-calorie foods. Maintaining a stable body weight requires achieving energy balance, where the amount of energy ingested equal to the amount of energy expended. Obesity can be developed when energy intake exceeds energy expenditure (Bell et al., 1998).

In Malaysia, unhealthy dietary practices such as meal skipping, eating away from home, skipping breakfast, fast food consumptions for meals and frequent snacking were often reported in previous studies (Chin & Mohd Nasir, 2009; Foo et al., 2006). Some factor from dietary practices studies being reported and yet there is limited published study conducted to compare the dietary practices between overweight and normal-weight children in Malaysia. Not only that, there were no studies combined all the dietary practices such as total energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, and fast food consumption together in a study.

Therefore, the present study aims to compare dietary practices between overweight children and with normal-weight children. The current study focused on energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, and fast food consumption. The study and research methodology served as a purpose to understand the following question;

1. What is the prevalence overweight and obese primary school children in Puchong?
2. Are there any difference of socio demographic background includes parental occupation and household income between overweight and normal weight children?
3. Are there any difference in term of dietary practices such as energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, and fast food consumption between overweight and normal- weight children?

1.3 Significance of the study

This study finding can be disseminated to the parents, school and the children as well as part of the nutrition education materials. This is where the information gained provides more understanding about association of overweight and obesity management with dietary practices in their daily life. The knowledge on dietary

practices can be incorporated into school curriculum and disseminate through media to increase the awareness on factor associated with dietary practices with body weight status. Thus, the intervention can be done starts from school level and prevent the adulthood obesity in the future.

Besides, government can use this information to develop policies that promote healthy dietary practices through campaign and media mass. The campaign and media mass easily reachable to public compared to other sources. In addition, present study provides baseline information for future research. The result of the study can be generalized and used as references in advance research in dietary practices among school children at Puchong. Puchong is a study location for the present study. Since, this study provides the information about dietary practices alone itself, program planner can use it to develop appropriate intervention program that are able to help children to practice a good health diet and practices it to be fit.

1.4 Research Objectives

General objective:

To compare the dietary practices between overweight and normal-weight children.

Specific objectives:

1. To determine differences in socio-demographic background (occupation of parents and parental monthly income) between overweight and normal-weight children.
2. To determine the differences in dietary practices (energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, and fast food consumption) between overweight and normal-weight children.

1.5 Null Hypothesis

H₀₁: There are no significant differences in socio-demographic background (occupation of parents, and parental monthly income) between overweight and normal-weight children.

H₀₂: There are no significant differences in dietary practices (energy intake, macronutrients and micronutrients intake, disordered eating meal consumption, snacking behaviour, family meal consumption, and fast food consumption) between overweight and normal-weight children.

1.6 Conceptual Framework

Figure 1.1 shows all the variables that were studied in the present study. The dependent variable in this study was body weight status. The age, sex, and ethnicity were matched according to matching criteria between overweight and normal weight children in present study. The occupation of parents and parental monthly income might be one of contributing factors to body weight status. The dietary practices such as energy intake, macronutrients and micronutrients intake, disordered eating, meal skipping, snacking behaviour, family meal consumption, fast food consumption, between overweight and normal-weight children show positive association to body weight status (BWS) (Soekirman et al., 2002).

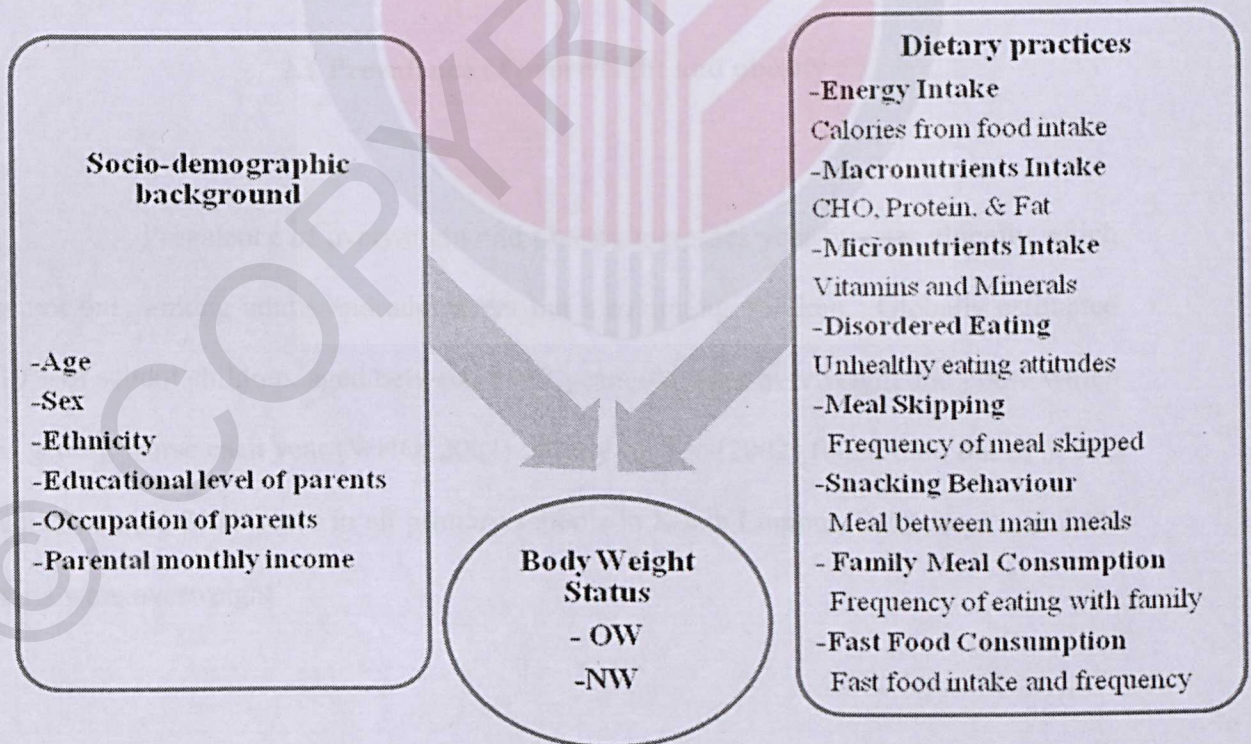


Figure 1.1: Conceptual Framework

CHAPTER 2

LITERATURE REVIEWS

2.1 Prevalence of overweight and obesity

Prevalence of overweight and obesity increases year by year globally which is not only among adults and adolescent but also among children. Globally estimated 10% of school children, aged between 5- 17 years old were overweight and obese which is getting worse each year (WHO, 2004). Study by Tee (2002) found that, out of 5, 995 children aged 7- 10 years in all primary schools in Kuala Lumpur, 9.7% boys and 7.1% girls were overweight.

Food intake has been related to obesity not only in terms of the volume of food ingested, but also in terms of the composition and quality of the diet. Furthermore, eating behaviour has been changed and current behaviour including the low consumption of fruits, greens, and milk, and as well increasing of snacks continuous elevates in adiposity among children. The National Health and Morbidity Survey (NHMS) 2011 reported a national prevalence of nutritional status for overweight (29.4%) and obesity (15.1%). According to Mohd Ismail et al. (2009), prevalence of overweight and obesity among school children nationwide in 2008 ranged from 18.4% among the Indians to 16.7% among Malay and 14.8% among Chinese. Malaysians practice different dietary behaviour and methods of food preparation according to their ethnicity.

The American National Centre for Health Statistics (2005) defined the prevalence of childhood obesity in Malaysia was 6.0% to 7.8% (Anuar et.al, 2005). According to Bong and Jaafar (1996), International Obesity Task Force (IOTF) reported that among children aged 5 to 17 years, one out of ten children were overweight or obese. Besides, overweight and obesity is now one of the most common nutritional problems among adults and children. The National Health and Morbidity Survey (NHMS) 2011 showed that the obesity (BMI- for-age 2011 $\geq 2SD$) prevalence of 6.7%, 6.3% and 4.9% for the age groups of 5.0-9.9, 10.0-14.9 and 15.0-17.9 years, respectively. This shows that childhood obesity has increased dramatically in Malaysia.

2.2 Dietary practices

Dietary practices are one of the modifiable risk factors for obesity in childhood and adolescence. In increasing nutritional needs for rapid growth and development, children were also exposed to a multitude of external factors that may affect their dietary choices and behaviours. As one of the developing country, Malaysian is experiencing a nutritional and lifestyle transition due to urbanization, industrialization and globalization. In this context, unhealthy eating practices are a serious health issue and should be addressed.

2.2.1 Energy and Nutrient Intakes

Studies conducted in Asian countries also supported findings that boys were more likely to be overweight. Males and females were often subjected to a different kind socialization even in modern Asia where the parents always encouraged boys to take higher portion of energy-dense food than the girls. In addition to a sedentary lifestyle such as watching television, playing computer games, and internet surfing lead the environment undeniably to create positive energy balance (energy in-energy out) and thus favors increasing weight (Anuar Zaini, 2005).

According to Herrera et al. (2003), unbalanced diet due to excessive of calories and nutrients was closely related to a higher prevalence of overweight and

obesity, while a balanced diet should provide adequate energy, macro- and micro-nutrients. Study by Kempster (2004) found that over eating was factor of obesity and over eating caused children made more unhealthy food choices. The cafeterias are serving food with larger fat content and low nutritious food. In many schools, soda and candy machines have also been conveniently placed. Children aged 5 years old onward spend considerable time at school. According to Ogden et al. (2002) schools has a critical role and have been considered ideal settings for primary preventive efforts aimed at supporting and promoting lifelong healthy eating.

Generally, obese individual believe that they are in an “over-nutritious” state. Obese individuals might be consuming excess energy, a number of studies have found obese children and adolescents to be deficient in several important micronutrients. Number of studies has reported a high prevalence of iron deficiency in overweight and obese children (Olson et al., 2012). Lower serum α -tocopherol and carotenoid concentrations were reported in American obese adolescents compared with normal weight subjects (Neuhouser et al., 2001).

In South-East Asia countries, the prevalence of vitamin D deficiency was 91% in overweight and obese Malaysian children, in contrast to 11.3% of obese Thai children (Rahman & Theobald, 2011). Vitamin and mineral deficiencies, due to either an unbalanced diet or adiposity-associated inflammation is commonly overlooked in obese children and adolescents. Although weight management strategy was emphasized,

implications of these micronutrient deficiencies would be considered in the treatment of obesity in children (Poomthavorn et al., 2011).

Dietary misreport can occur in any method of dietary assessment and common to all methods such as dietary re-call, diet history, and food frequency (Black et al., 1991). The dietary misreport often occurred among children because they have poor memory (Livingstone, 1995). Overweight or obese children have higher rates of underreporting of energy intake than normal-weight children (McPherson, 2000). Even in normal-weight children, there is a positive association between underestimation of food intake and a tendency towards increased body fatness (Livingstone, 2004)

2.2.2 Disordered Eating

Disordered eating can be identified by a group of unhealthy weight loss methods such as extreme caloric restriction, food group elimination, skipped meals, high fat and high caloric consumption, and compulsive over-exercising. Disordered eating reported consequences including physical and psychological symptoms, poorer eating habit and nutritional intake, difficulties in weight loss and maintained as result of unbalanced weight changes, and increased binge eating followed restrained eating. Besides, overweight children were highly engage in dieting compared to normal-weight children (Neuhouser, 2001). According to Knez (2004), children(10-14 years old) who in early adolescent stage have moderately disturbed eating behaviour. Arnett (2005) reported

that children have less disordered eating, but children who engaged in dieting more likely to have disordered eating.

2.2.3 Meal Skipping

Another leading important factor was meal skipping which has effect on physiologic and scholastic performance. Large percentage of students did not bring food from their home and buy food from canteen. This led to children skipping their meal at schools (Eisenberg et al., 1998).

According to Ma et al. (2003), skipping breakfast was significantly associated with obesity. In the finding of a survey on eating behaviour of school children and adolescents in Kuala Lumpur by Moy et al. (2006) of 3620 school children studying in Primary 5, Secondary 2 and 4 has found that 19.9% of student took at least meal a day with youngest group having lowest prevalence. Meanwhile, the most frequently missed is breakfast (12.6%) followed by lunch (6.7%) and dinner (4.4%).

Besides, a study done by Chin and Mohd Nasir (2009), they reported that 52.6% of female adolescents in Kuantan, Pahang skipped at least one meal per day. This study had found that breakfast was most skipped frequent missed meal (47.4%) followed by (37.6%) and lunch (24.8%). It is important caterer to provide healthy, creative and delicious food served during breakfast and lunch in school.

2.2.4 Snacking Behaviour

In general, snacking can be defined as food or drink eaten between main meals (Chaplin & Smith, 2011) and also based on the time criterion (Gregori & Maffeis, 2007). Snacking was commonly associated with undesirable health outcomes and dietary patterns, and consequently snacking was regarded as a contributing factor in the development of overweight and obesity (Savigne et al., 2007). The usual perception on snacking was that snack foods are high in fat and sugar and hence harmful and not conducive for healthy eating (Astrup et al., 2006) Adolescents tend to select snacks based on taste over nutrition, and they are more often choose salty and crunchy foods as snacks over healthier alternatives.

Snacking may also be associated with less frequent consumption of meals, which may be detrimental to health since regular meal patterns are associated with greater dietary diversity, healthier food choices and better nutrient intakes. More frequent snack intake was often associated with excess energy intake and non-balanced nutrient intakes, and subsequently causing the increase of overweight and obesity among the children (Nicklas, 2003). Previous studies show that frequent snacking influences the intake of macronutrients included carbohydrate, protein, fat and micronutrients such as calcium, folate and iron (Bellisle, 2003; Kim, 2010). Besides, according to Hampl et al., (2003), multiple snackers had more prudent energy-adjusted intakes of protein, cholesterol, calcium and sodium.

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2.2.5 Family meal consumption

According to Chin and Mohd Nasir (2009) finding, reported that at least three in four participants that they usually eat with family members, followed by peers and ate alone. Family plays an important role in shaping their children's eating behaviour. Frequent meal consumption with family also provide opportunities to teach children about manners, nutrition and healthy eating, and should be seen as a special time for families to be connected (Fiese and Schwartz, 2008). As a result, it is important for children to develop good food habits in their formative years.

2.2.6 Fast Food Consumption

Fast food consumption leads to childhood obesity as well. Fast food includes saturated and trans fat, high glycemic index, high energy dense, and large portion size (Anderson, Butcher, Levis, 2003). Sweetened soft drinks contain empty calories and contribute to the total caloric intake, one of the factors to the rise in adolescent obesity. According to Nielsen and Popkin (2004) all ages consuming soft drinks and the portion sizes and number of servings had increased. In Unites States alone, the consumption of soft drink per capita increased from 11 gallons per year to 49 gallons per year.

Some of the dietary factors were positively associated with probability of developing childhood obesity include increased consumption of soft drink, fat oils and sodium. The consumption of fast food and soft drinks were the most encountered barrier

in the obesity management (Perrin, Flower, Charret, & Ammerman, 2005). Inappropriate nutritional status can affect growth, development, as well can lead to nutritional- related problems (Baskin, Ard, Franklin & Alison, 2005).



CHAPTER 3

METHODOLOGY

3.1 Study Design

This was a cross-sectional comparative study that aimed to compare the dietary practices between overweight and normal-weight children in Puchong, Selangor.

3.2 Study Location

The study was conducted in Puchong which is situated in Selangor, Malaysia. Puchong is situated in the midway between Kuala Lumpur and Putrajaya. Puchong has a total of 66, 808 populations. Out of total population, 53.0% were Malay,

29.0% were Chinese, 16.0% were Indian, and 2% were from the other ethnic group (Department of Statistics, 2010).

Puchong is an urban area in Selangor with the majority of the population is Malays. Moreover, there was no recent study to determine the prevalence of obesity and overweight among children in Puchong. Thus, the present study conducted in Puchong, Selangor to compare the dietary practices between overweight and normal-weight children.

The study was conducted at four National primary schools in Puchong. The selected National primary schools were Sekolah Kebangsaan Puchong Jaya, Sekolah Kebangsaan Pusat Bandar Puchong 1, Sekolah Kebangsaan Puchong Perdana 2 and Sekolah Kebangsaan Puchong.

3.3 Sample Size Determination

Figure 3.1 shows G*Power 3.1 references application to calculate the sample size, 86 overweight children was required with a medium effect size ($d=0.5$) in order to produce 90% power ($\alpha = 0.05$). Additional 20% mark up was given as taking into consideration of non-response questionnaire, high chances children unwilling to participant and incomplete data. Therefore, a minimum of 103 overweight and obese primary school children were needed in the overweight group (OW) to be matched with 103 normal

weight primary school children as normal-weight (NW) group by age, sex and ethnicity in the present study. With an estimated prevalence of childhood overweight and obesity (Tee et al., 2002) of 17.8%, approximately 600 primary school children needed to be screened in order to get adequate sample size.

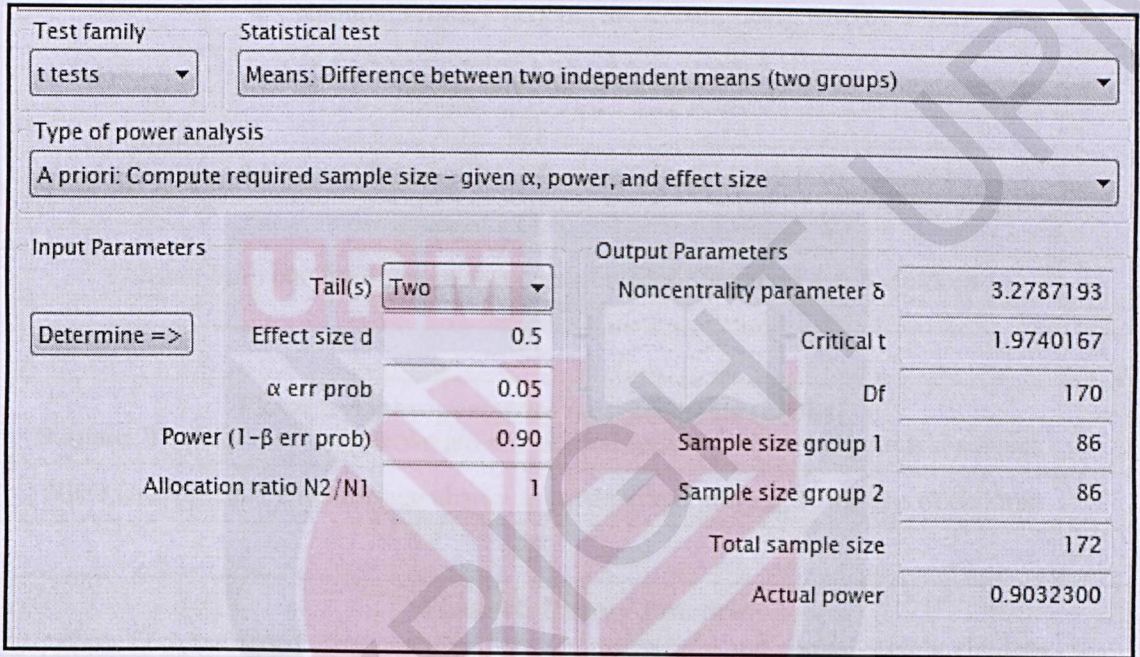


Figure 3.1: G*power calculation

3.4 Sampling and Subjects

As shown in Figure 3.2, a list of primary schools in Selangor was obtained from the Ministry Education Department of Selangor, and then all primary schools in Puchong area were identified (Appendix X). There were 16 schools met the inclusion criteria which is national primary school and Malaysian children. Simple random sampling was used to select four schools out of sixteen national primary schools to

achieve enough number of children. All students from Standard 4 and Standard 5 who present on the day and willing to participate included as respondents of the study.

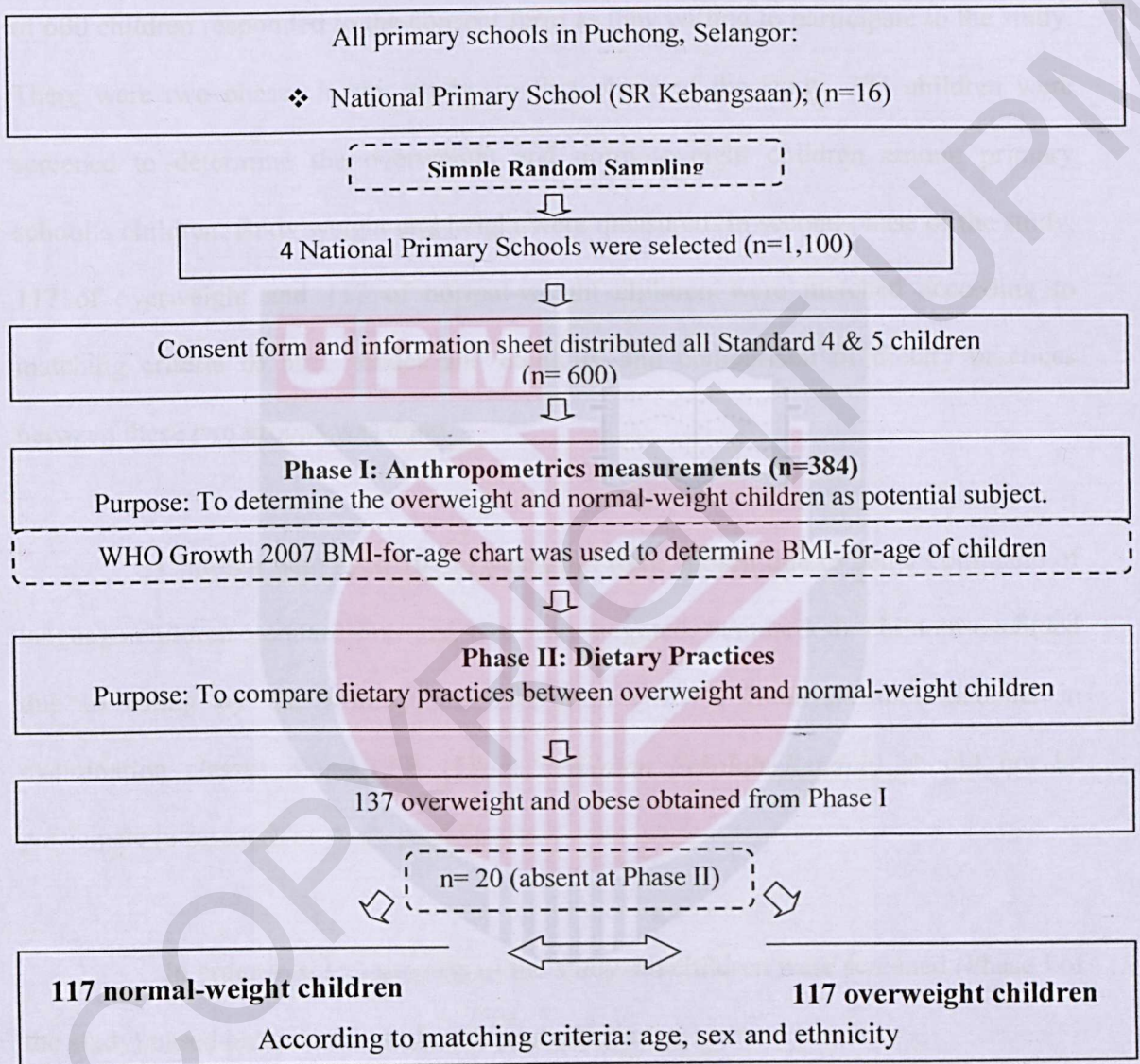


Figure 3.2: Flow chart of respondent's recruitment

From a total of 1,100 children in selected four schools, around 50% of the children absent on the distribution of consent form and information sheet day. Thus, 600 children received the consent form and information sheet (Appendix IV). Then, 384 out of 600 children responded to the consent form as they willing to participate to the study. There were two phases in this study. In first phase of the study, 384 children were screened to determine the overweight and normal-weight children among primary school's children. Body weight and height were measured. In second phase of the study, 117 of overweight and 117 of normal-weight children were matched according to matching criteria of age, gender and ethnicity and comparison of dietary practices between these two groups was done.

Children who aged 10- 11 years old were chosen due to better command of language children standard four and five were targeted. Standard six children excluded due to ruling by the Ministry of Education (MOE), Malaysia that students in examination classes like UPSR (*Ujian Penilaian Sekolah Rendah*) should not be participate in research as study participants.

In order to select subjects of the study, all children were screened (Phase I of the study) based on inclusion and exclusion criteria:

- Inclusion criteria of the subjects:
 1. Children from National (Sekolah Kebangsaan) schools.
 2. Male or female of Malaysian children.

- Exclusion criteria of the subjects:

1. Children with special needs (e.g., Down syndrome or mentally retarded)
2. Children on medication (e.g., steroids) which may affect their body weight status
3. Children with co morbidities diseases.

3.5 Instruments

Phase I of the study (Appendix I)

3.5.1 Socio-demographic questionnaire for Phase I of the study

The socio-demographic status such as age, sex and ethnicity were identified using health screening form. Age, sex and ethnicity were matching criteria in this study

3.5.2 Anthropometric measurements

Anthropometric measurements were conducted in the health screening session to determine the body weight status of the children. Body weight of the children was measured by using TANITA digital weighing scale to nearest 0.1 kg. Meanwhile, body height of the children was measured by using the SECA body meter to nearest 0.1 meter. The body weight status of the children was determined using the WHO Anthroplus software. The classification of the body weight status was based on the WHO Growth Reference 2007 (WHO, 2007) by body mass index (BMI)-for-age for male and female children.

Phase II of the study (Appendix II)

3.5.3 Self-administered Questionnaire

Children completed a set of self-administered questionnaire consists of Socio-demographic background questionnaire, Eating Behaviours Questionnaire (EBQ), and Children's Eating Attitude Test (ChEAT). The self-administered questionnaire translated to Malay, Chinese and Tamil respectively. Back-translation of the questionnaires was conducted prior data collection.

- Socio-demographic questionnaire for Phase II of the study

The socio-demographic background questionnaire was given to children who meet the criteria overweight or obese of body weight status based on BMI-for-age classification (WHO, 2009). The information such as, education level of parents, occupation of parents, parental monthly income was filled in this section and date of birth, sex, ethnicity obtained from Phase I of the study.

- Eating Behavior Questionnaire (EBQ)

Eating behaviour was assessed using a self-administered Eating Behavior Questionnaire (Chin & Mohd Nasir, 2009). Nine items of the questionnaire assessed the

frequency of meal consumption, frequency of snacking between meals, type of snacks consumption, frequency of eating outside and take-away food, use of dietary supplement, and type of dietary consumption. The findings from this questionnaire was interpreted as determination of meal skipping, snacking behaviour, the types of snacking items they used to consume, the family meal consumption and fast food consumption as well.

- Children Eating Attitudes Test (ChEAT)

Eating attitude and behaviour was done as self-administered using Children Eating Attitudes Test (ChEAT) (Maloney *et al.*, 1988). There were 26 items that are rated on a point scale with responses: always, very often, often, sometimes, rarely, and never. The subscales derived from these factors were: dieting, bulimia and food preoccupation and oral control as well which as following items:

- 1) Dieting – Item 1, 6, 7, 10, 11, 12, 14, 16, 17, 22, 23, 24 and 25
- 2) Bulimia and food preoccupied – Item 3, 4, 9, 18, 21, and 26
- 3) Oral control – Item 2, 5, 8, 13, 15, 19, and 20

The possible score ranged from 0-78. The higher the total ChEAT score, the children were more likely to have disordered eating. The last item has reverse score as shown in Table 3.1. Based on total ChEAT of the children was classified into two categories which were disordered eating and not disordered eating. For the children who

scored more and equal to 20, they considered as disordered eating. Meanwhile, children who scored less than 20 were considered as not disordered eating.

Table 3.1: The scoring systems quantify score on ChEAT

Choices	Scale	Score	Reverse score
Never	1	0	3
Rare	2	0	2
Sometimes	3	0	1
Often	4	1	0
Usually	5	2	0
Always	6	3	0

3.5.4 Research Interview

- Two-day 24- Hour Dietary Recall

Two-day 24-hour dietary recall interview was carried out by the researchers. A two-day dietary intake recall which comprised one weekday and one weekend was done. Detailed descriptions of all foods and beverages including the quantity were recorded. Nutritionist Pro Diet Analysis software was used to analyze the data. The children macronutrients and micronutrients intake was compared with the Recommended Nutrient Intakes (NCCFN, 2005) to determine nutrient intake adequacy for the children.

Since 24-hour dietary recall has some limitations in term of misreporting of energy intake, the ratio of energy intake and basal metabolic rate was calculated for each child. The basal metabolic rate was determined using the Schofield equation (Schofield, 1895) by age and sex. Figure 3.3 shows the Schofield- basal metabolic rate equations used in this study for 10-17 years.

Schofield - Basal Metabolic Rate equations:		
Age (years)	Males	Females
10-17	BMR = 17.686 x (wt kg) + 658.2 SEE = 105	BMR = 13.384 x (wt kg) + 692.6 SEE = 111
18-29	BMR = 15.057 x (wt kg) + 692.2 SEE = 153	BMR = 14.818 x (wt kg) + 486.6 SEE = 119
30-59	BMR = 11.472 x (wt kg) + 873.1 SEE = 167	BMR = 8.126 x (wt kg) + 845.6 SEE = 111
≥ 60	BMR = 11.711 x (wt kg) + 587.7 SEE = 164	BMR = 9.082 x (wt kg) + 658.5 SEE = 108
SEE = Standard error of estimation		

Figure 3.3: Schofield- basal metabolic rate equations.

The basal metabolic rate was compared with reported dietary intake to identify the achievement of energy requirement for each child. The reporting of dietary intake cut off was determined using the Goldberg equation as shown in Figure 3.4. The Goldberg cut-off can be used to evaluate the mean population bias in reported energy intake, but information on the activity or lifestyle of the population is needed to choose a suitable PAL energy requirement for comparison. The suitable PAL used in this study

was 1.55 and the value of S was 5.8. S is the overall coefficient variation for PAL taking into account the variability in energy and basal metabolic rate (BMR). The value 5.8 was used for usual sedentary lifestyle as most of them not physically active. In small studies, it is desirable to measure energy expenditure or to calculate individual energy requirements, and to compare energy intake directly with energy expenditure (Golberg et al., 1991).

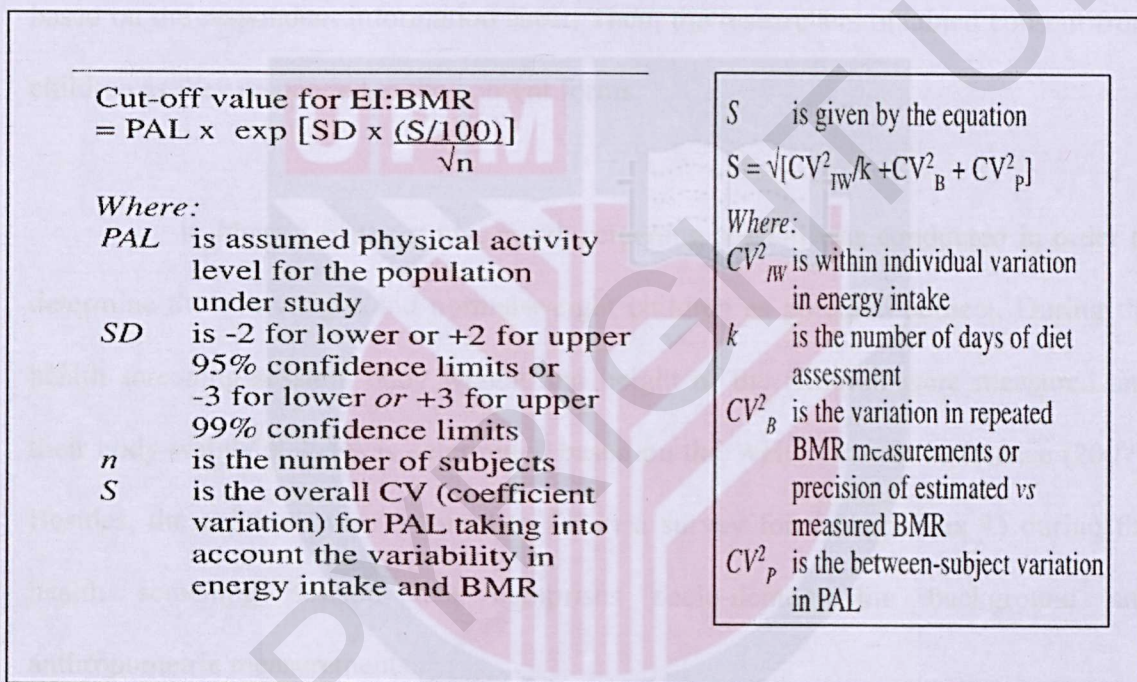


Figure 3.4: Goldberg cut-off equation

The cut-off point of reporting the dietary intake determined into three which were over-reporting, adequate reporting and under-reporting. Over reporting defines as the energy intake reported more when compared to their basal metabolism rate while adequate reporting known as the energy intake reported in range of their basal metabolism rate. In contrast, the under-reporting defines as the energy intake less than their body basal metabolism rate (Black & Cole, 2000)

3.6 Data Collection

Ethical approval from *Jawatankuasa Etika Universiti untuk Penyelidikan Melibatkan Manusia*, *JKEUPM* and Ministry of Health (MOE) were obtained (Appendix III). Prior data collection, respondent information sheet was distributed to the parents. The researchers were explained about the study purpose and protocol to them based on the respondent information sheet. Then, the researchers obtained consent from children as they responded to the consent forms.

In Phase I of the study, health screening session was conducted in order to determine the overweight and normal-weight children as potential subject. During the health screening session, body weight and height of the children were measured and their body weight status was determined based on the WHO Growth Reference (2007). Besides, the children were required to fill in a survey form (Appendix 1) during the health screening session that comprises socio-demographic background and anthropometric measurements.

In Phase II of the study, dietary practices were compared between the overweight and obese children and normal-weight children. The children were selected by using matching criteria of age, sex and ethnicity and required to complete a set of self-administered questionnaire respectively (Appendix II)

3.7 Data Analysis

All data collected were analysed by using IBM SPSS version 21. Univariate analysis used to analyze descriptive data and the results presented as frequencies for categorical variables and as means and standard deviation for continuous variables. Independent t-test was used to determine the differences of socio-demographic characteristic between overweight group and normal-weight group and to determine the difference of dietary practices (as energy intake, macronutrients and micronutrients intake, disordered eating, meal consumption, snacking behaviour, family meal consumption, and fast food consumption) between overweight group and normal-weight group as well.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Socio-demographic Background

Body weight status determination is a first phase where to determine the overweight and normal-weight children. Body weight status determination done during access the socio-demographic background data at Puchong from Standard 4 to Standard 5 children. A total number of 384 screened children, aged between 10-11 years old comprised of 339 (88.3%) Malay, 11 (2.9%) Chinese, 31 (8.1%) Indian and 3 (0.8%) other ethnicity such as kadazan and Iban. Based on WHO Growth Reference 2007 Chart, the prevalence of overweight and obese children were 17.4% and 18.2% respectively. More than half of children categorized under normal-weight category

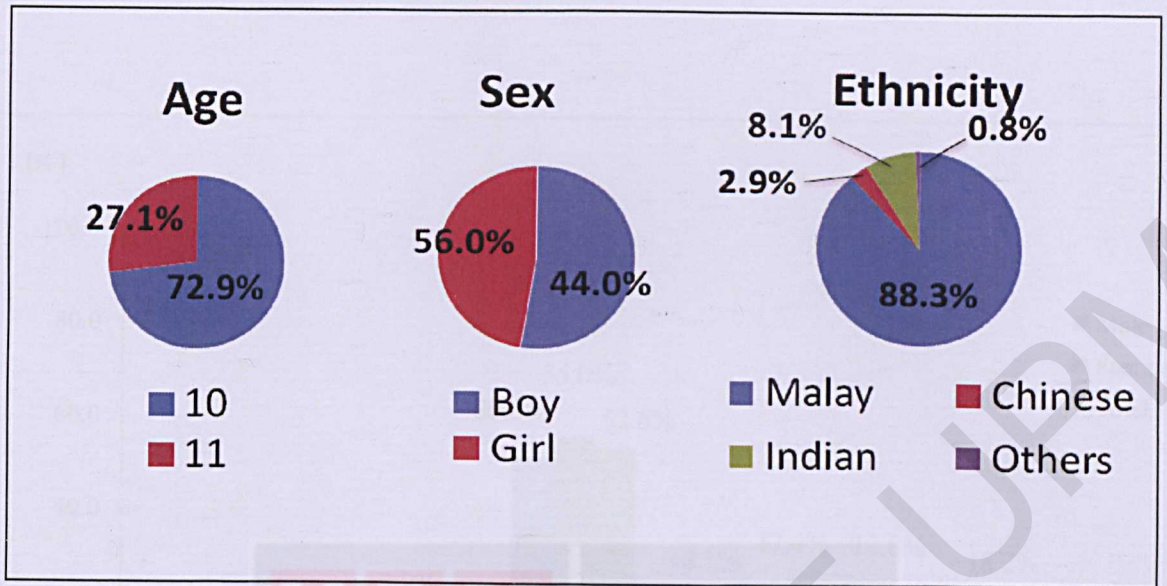


Figure 4.1: Distribution of matching criteria (age, sex and ethnicity)

4.2 Body weight status

Body weight status determinations were by done health screening session in selected four schools at Puchong, Selangor from Standard 4 to Standard 5 children. Based on WHO Growth Reference 2007 Chart (WHO, 2007), the prevalence of overweight and obese children were 17.4% and 18.2% respectively. According to Figure 4.2, more than half of children which is 52.7% were categorized in the normal-weight category. 4 out of 384 children were severely underweight (1.0%). There is no significant association between sex and body weight status ($\chi^2 = 2.04, p = 0.728$).

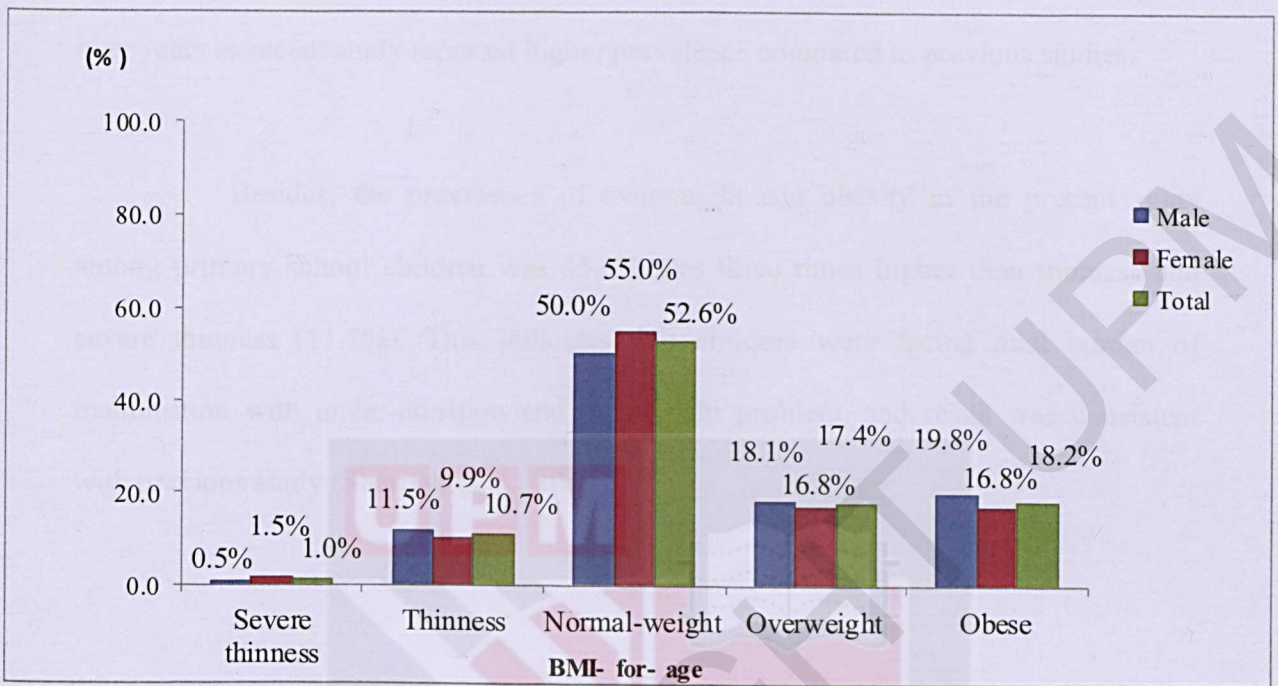


Figure 4.2: Prevalence distribution of body weight status among school children.

This study shows a high prevalence of overweight and obesity and it was consistent with some previous studies. Bong and Safurah (1996) reported a prevalence of 8.0% overweight among primary school children in Selangor. Two years later, Ismail and Tan (1998) reported an obesity prevalence of 6.6% among 7-years old children while 13.8% prevalence was reported in 10-year old children. In year 2001, 8.7% obesity reported in residing in Kuala Lumpur by Fatimah et al., while one year later, Tee *et al.* (2002) studying 5,995 children aged 7 to 10 years in all primary school in Kuala Lumpur reported prevalence of overweight of 9.7% among boys and 9.1% among girls. Ismail (2003) also reports 6.0% obesity in both sexes in a survey of 11,500 school

children aged 6-12 years old. This shows the increasing trend of overweight and obesity over years as recent study reported higher prevalence compared to previous studies.

Besides, the prevalence of overweight and obesity in the present study among primary school children was 35.6% was three times higher than thinness and severe thinness (11.7%). This indicates that children were facing dual burden of malnutrition with under-nutrition and overweight problem, and result was consistent with previous study (Sharifah et al., 2012).

Phase II of the study

4.3 Matching criteria of the children

Phase II conducted to compare dietary practices between overweight and normal-weight children according matching criteria of age, sex and ethnicity. Table 4.1 shows the distribution of respondents according to the matching criteria. The study sample consisted of 46.2% males and 53.8% females, with a mean age of 10.77 ± 0.42 years. Majority of the children were Malay (91.5%), followed by Indian (6.8%) and Chinese (1.7%).

Table 4.1: Distribution of children according to the matching criteria

Matching Criteria	OW n (%)	NW n (%)
Age (years)		
10	27 (23.1)	27 (23.1)
11	90 (76.9)	90 (76.9)
Mean ± SD	10.77 ± 0.42	10.77 ± 0.42
Sex		
Male	54 (46.2)	54 (46.2)
Female	63 (53.8)	63 (53.8)
Ethnicity		
Malay	107 (91.5)	107 (91.5)
Chinese	2 (1.7)	2 (1.7)
Indian	8 (6.8)	8 (6.8)

Note: OW= Overweight Group NW= Normal-weight Group

4.4 Socio-demographic Background of Phase II

Parent's socio-demographics background includes education level of parents, occupation of parents and total parental monthly income. Table 4.2 shows the socio demographics background for parents of overweight and normal-weight children.

Parental educational level, in particular the mothers, showed the highest impact on the children's dietary practices since they cook family meal. Mostly educated mothers are cautious of what the family eats than uneducated mothers. Moreover, children from poor and low income families are more likely to have faced both financial and non financial barriers to adequate food from their parent since much of their time is focused on earning income for the family. The socioeconomic status of parent specifically income, have an adverse effect on their dietary and lifestyle (Case, 2002).

Table 4.2: Parents socio-demographic background

Parents socio-demographic background	OW n (%)	NW n (%)
Educational Level of Father		
No formal education	0 (0.0)	1 (1.9)
UPSR	3 (2.6)	3 (2.6)
PMR	9 (7.7)	7 (6.0)
SPM	52 (44.4)	37 (31.6)
STPM/Diploma	24(20.5)	7 (6.0)
Degree	11 (9.4)	15 (12.8)
Master/ PhD	3 (2.6)	1 (1.9)
Occupation of Father		
Managers	7 (8.2)	5 (5.6)
Professionals	22 (25.9)	15 (16.9)
Technicians and Associate Professionals	16 (18.8)	19 (21.3)
Clerical Support Workers	5 (5.9)	8 (9.0)
Service and Sales Workers	9 (10.6)	18 (20.2)
Skilled Agricultural, Forestry and Fishery Workers	0 (0.0)	0 (0.0)
Craft and Related Trades Workers	1 (1.2)	4 (4.5)
Plant and Machine-operators	23 (27.1)	19 (21.3)
Elementary Occupations	1 (1.2)	1 (1.2)
Armed Forces Occupations	0 (0.0)	0 (0.0)
Retired	1 (1.2)	1 (1.2)
Unemployed	0 (0.0)	0 (0.0)
Educational Level of Mother		
No formal education	0 (0.0)	1 (0.9)
UPSR	5 (4.3)	3 (2.6)
PMR	4 (3.4)	11 (9.4)
SPM	51 (43.6)	36 (30.8)
STPM/Diploma	17 (14.5)	15 (12.8)
Degree	13 (11.5)	7 (6.0)
Master/ PhD	5 (4.3)	0 (0)
Occupation of Mother		
Managers	2 (2.4)	2 (2.4)
Professionals	19 (22.4)	19 (22.6)
Technicians and Associated Professionals	2 (2.4)	3 (3.6)
Clerical Support Workers	10 (11.8)	17 (20.2)
Service and Sales Workers	2 (2.4)	4 (4.8)
Skilled Agricultural, Forestry and Fishery Workers	0 (0.0)	0 (0.0)
Craft and Related Trades Workers	0 (0.0)	0 (0.0)
Plant and Machine-operators	4 (4.7)	3 (3.6)
Elementary Occupations	1 (1.2)	1 (1.2)
Armed Forces Occupations	0 (0.0)	0 (0.0)
Retired	0 (0.0)	0 (0.0)
Unemployed	45 (52.9)	35 (41.7)
Parental Monthly Income		
<RM1500	7(8.5)	11(15.3)
RM1500–RM3500	44(41.5)	30(41.7)
>RM3500	53(50.0)	31(43.1)
Mean ± SD	RM5364.91 ±9864.23	RM4237.44±3396.35
Median	RM4450.00	RM5000.00
Minimum	RM 1800.00	RM 0.00
Maximum	RM 100000.00	RM 20000.00

Note: OW= Overweight Group NW= Normal-weight Group

4.4.1 Educational Level of Father

As shown in Table 4.2, 173 numbers of children's parents who filled in educational level of father for both overweight and normal-weight groups. There was all father of overweight children had received formal education while for father of normal-weight children, one of them did not receive a formal education. About 64 (54.7%) of father of overweight children and 47 (40.2%) of father of normal-weight children completed their secondary school. Meanwhile, a total of 35 (29.9%) father of overweight children and 22 (18.8%) father of normal-weight children attained higher study such as STPM, Diploma and Degree after SPM. For the highest level of education which is categorized as Master and PhD, about 3 (2.6%) father of overweight children and 1 (0.9%) father of normal-weight children.

4.4.2 Educational Level of Mother

Since some of the parents did not fill in the information for educational level of mother, only 87 numbers of children for overweight and 81 numbers of children normal-weight groups filled the educational level of mother column as shown in Table 4.2. It was found that 1 (1.1%) mother of overweight children had no formal education and all mothers of normal-weight children receive formal education. Apart from that, about 55 (63.2%) of mother of overweight children and 48 (59.3%) of mother of normal-weight children completed their secondary school. Mother of overweight

children was attained higher level of education about 10 (11.5%) and mother of normal-weight children was 14 (17.3%) attained in the university.

4.4.3 Occupation of Father

Among father of overweight children, most of them work in plant and machine-operators (27.1 %). It followed by professional's work (25.9%) and technicians and associate professionals (18.8%). Other occupations such as service and sales workers, managers, clerical support workers, craft and related trades workers, elementary were 10.6%, 8.2%, 5.9%, 1.2%, and 1.2% respectively. Besides, father of normal-weight children most of them work as plant and machine-operators (21.3%), technicians and associate professionals (21.3%), and service and sales workers (16.9%). Small number of father of normal-weight children work as clerical support workers, managers, and craft and related trades workers were 9.0%, 5.6%, and 4.5% respectively. None fathers of overweight and normal-weight children were unemployed.

4.4.4 Occupation of Mother

Few mothers of overweight children were professionals (22.4%) and clerical support workers (11.8%). Small number of mother of normal-weight children work as by professionals and clerical support workers were 22.6%, and 20.2% respectively. Most of mothers of overweight and normal-weight children were unemployed such as house wife 52.9% and 41.7% respectively.

4.4.5 Total Parental Monthly Income

Total parental monthly income was combination of father and mother of the children. Most of the mothers were housewives while fathers were the main resource for money making. The mean of parental monthly income of overweight children was RM5364.91±9864.23 while parental monthly income of normal-weight children was RM4237.44±3396.35. The median for parental monthly income of overweight children and normal-weight children were RM4450.00 and RM5000.00 respectively. The maximum range of parental monthly income of overweight children was RM 100,000 whereas parental monthly income of normal-weight children income was RM 20,000. Table 4.2 illustrated the parental income of overweight and normal-weight children.

4.5 Dietary Intake

4.5.1 Energy Intake and Nutrient Intakes

Table 4.3 shows distribution of energy and macronutrients intake between overweight and normal-weight children. Overweight children (2077± 753 kcal) showed significant difference in energy mean intake than normal-weight children (1808± 650g; $p<0.001$). The total energy intake for both overweight and normal-weight were major contributed by carbohydrates and protein. Fat contribution as energy intake was least in this study. The carbohydrates intake of overweight children (262.1±94.5g) was significantly higher compared to normal-weight children (221.1±86.3g; $p<0.05$). For

protein intake, overweight children ($86.4 \pm 44.4\text{g}$) have significantly higher than normal-weight children ($72.0 \pm 34.4\text{g}$). However, fat intake between overweight and normal-weight children was not significant ($p < 0.05$). Significantly higher proportions of the overweight and normal-weight were failed to meet the RNI levels for most of macronutrient intakes. Majority of the overweight children achieved the RNI levels for protein compared to normal-weight children ($\chi^2=7.115, p= 0.008$).

Table 4.3: Distribution of energy and macronutrients intake between overweight and normal-weight children

Nutrients intake	OW	NW	χ^2	OW	NW	<i>t</i>
	n (%)	n (%)		MEAN \pm SD	MEAN \pm SD	
Energy intake (kcal/day)				2077 \pm 753	1808 \pm 650	2.792**
< RNI	81(69.8)	91(77.8)	1.90			
\geq RNI	35(30.2)	26(22.2)				
Carbohydrates (g/d)				262.1 \pm 94.5	221.1 \pm 86.3	2.479*
Protein (g/d)	5(4.3)	17(14.5)	7.11*	86.4 \pm 44.4	72.0 \pm 34.4	2.662*
< RNI	111(95.7)	100(85.5)				
\geq RNI						
Fat (g/d)				71.9 \pm 32.8	66.1 \pm 33.0	1.350

Note: RNI = Recommended Nutrient intake according to NCCFN (2005)

Significant differences between body weight status on mean of macronutrients intake were measured by the independent *t*-test: * $p < 0.05$, ** $p < 0.01$, Significant differences between body weight status on RNI cut off were measured by the chi-square: * $p < 0.05$

Table 4.4: Distribution of micronutrients intake between overweight and normal-weight children

Nutrients intake	OW	NW	χ^2	OW	NW	<i>t</i>
	n (%)	n (%)		MEAN \pm SD	MEAN \pm SD	
Vitamin A (RE)	16(13.8)	26(22.2)	2.801	1233.5 \pm	925.9 \pm 473.5	2.514*
< RNI	100(86.2)	91(77.8)		1129.7		
\geqRNI						
Vitamin C (mg/d)	41(35.3)	56(47.9)	3.757*	103.0 \pm 226.5	61.9 \pm 55.0	1.545
< RNI	75(64.7)	61(52.1)				
\geqRNI						
Niacin (mg/d)	38(32.8)	63(53.8)	10.58*	17.9 \pm 8.8	13.4 \pm 7.9	2.987*
< RNI	78(67.2)	54(46.2)				
\geqRNI						
Calcium (mg/d)	109(94.0)	113(96.6)	0.087	538.4 \pm 377.0	453.4 \pm 214.6	1.673) *
< RNI	7(6.0)	4(3.4)				
\geqRNI						
Iron (mg/d)	27(23.5)	40(34.2)	3.239	22.0 \pm 13.1	18.1 \pm 8.4	2.225*
< RNI	88(76.5)	77(65.8)				
\geqRNI						

Note: RNI = Recommended Nutrient intake according to NCCFN (2005)

Significant differences between body weight status were measured by the independent *t*-test:

p*<0.05, *p*< 0.01,

Significant differences between body weight status were measured by the chi-square: **p* < 0.05

Besides, most of the vitamins and minerals showed the significant difference between overweight and normal-weight children. Table 4.5 summaries the distribution of micronutrients intake between overweight and normal-weight children. Overweight children (1233.5 ± 1129.7 RE) have significant differences in vitamin A intake compared to normal-weight children (925.9 ± 473.5 RE; $p < 0.05$). For mineral intakes, significant differences of niacin, calcium and iron reported between overweight and normal weight. The niacin intake of overweight children (17.9 ± 8.8 mg) was significantly higher compared to normal-weight children (13.4 ± 7.9 mg). For calcium intake, overweight children (538.4 ± 377.0 mg) have significantly higher than normal-weight children (453.4 ± 214.6 mg). Iron intake of overweight children (22.0 ± 13.1 mg) was significantly higher compared to normal-weight children (18.1 ± 8.4 mg). Majority of the overweight and normal-weight failed to meet the RNI levels for most of micronutrient intakes. Overweight children achieved the RNI levels for vitamin C ($\chi^2 = 3.757$, $p = 0.043$) and niacin ($\chi^2 = 10.548$, $p = 0.001$) compared to normal-weight children.

This study found that the mean intake of energy and most of the nutrients for overweight and normal-weight children failed to meet the RNI. Shimbo et al. (2004) reported that students had inadequate intake of protein, and iron and vitamin A and adequate intake of energy, calcium, and riboflavin. There are relatively few studies focusing on the association between protein consumption and obesity in children and adolescents. A study conducted by Hermanussen, Sichert-Hellert & Kersting (2008) found a significant positive correlation between BMI and intake of overall protein ($p < 0.01$) and animal protein ($r = 0.151$, $p < 0.01$). Meanwhile, the findings by

Trichopoulou et al. (2002) suggest that protein intake is conducive to obesity and may be the underlying reason for the escalating rates of obesity. Evidence suggests that high-protein meals stimulate the central nervous appetite regulation, thus promoting increased energy intake (Hermanussen et al., 2008).

Several studies showed micro-nutrient intake to be parallel with total energy intake (Mirnalini et al., 2008; Sanlier & Unusan, 2007; Shimbo et al., 2004). Energy-dense foods stimulate passive over-consumption where sensory signals of satiety cues could not be recognised, therefore making a person susceptible to becoming overweight by ingesting extra calories than needed (Viskaal-van Dongen et al., 2008)

4.5.2: Evaluation in Reporting of Dietary Intake

Dietary under-reporting can occur in any method of dietary assessment. Factors contributing to mis-reporting will be common to all methods such as dietary recall, diet history, and food frequency (Black et al., 1991). While this technique provides confirmation of the inaccuracy of dietary intake, its use is precluded in large population studies owing to the cost (Livingstone, 1995). A reference often used for dietary intake data in large studies is the ratio of reported energy intake (EI) to BMR (EI: BMR) (Goldberg et al. 1991). BMR can be calculated from standard an equation which was from Schofield equation (Schofield et al. 1985). EI: BMR is based on the assumption that TEE is equal to EI. Besides, $TEE = BMR \times PAL$ (physical activity level) as well. It has been stated that an EI: BMR of 1.27 is the minimum value for survival and not

compatible with long term health (WHO, 1985). In this study, PAL value used was 1.55. The S value was calculated from equation, which were 5.8. After substitute all the values in the Goldberg equation, lower value calculated was 1.38 and upper value calculated was 1.74. As the result, 1.38 know as under-reporters as and more than 1.74 known as over-reports. The reading between 1.38 and 1.74 was known as reference point of acceptable-reporters on dietary intake.

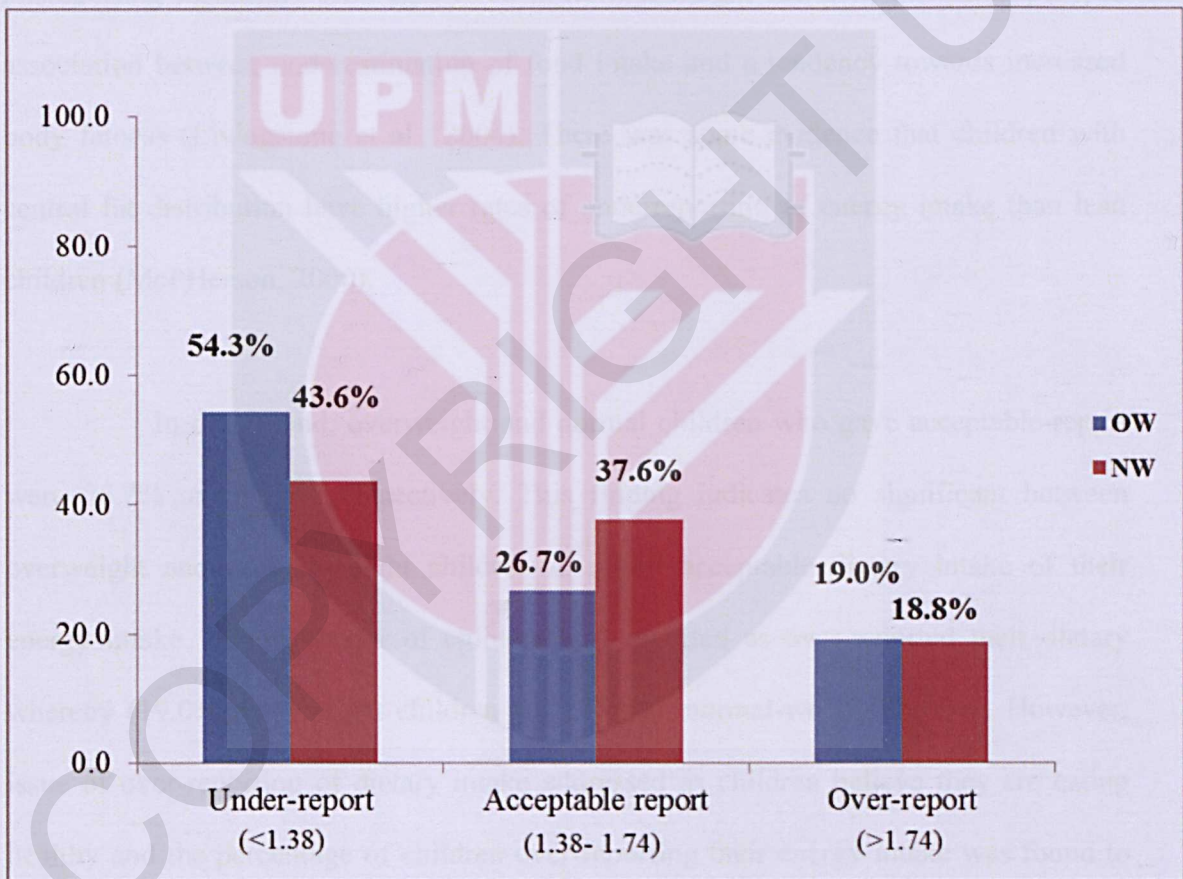


Figure 4.3: Reporting of dietary intake by overweight and normal-weight children

Figure 4.3 shows the under-report, acceptable report and over-report between overweight and normal-weight children. Although was no significant

differences ($t=-1.049$, $p=0.295$) between overweight and normal children, overweight children (54.3%) were more likely to high under-report their dietary intake compared to normal-weight children (43.6%). Total children under-reporting their dietary intake were reported 48.9% which was about half of children from the study. The finding was consistent with previous study whereby overweight and obese children under-report significantly more than normal-weight children counterparts with the extent of misreporting increasing with age. Even in normal-weight children, there is a positive association between underestimation of food intake and a tendency towards increased body fatness (Livingstone et al., 2004). There was some evidence that children with central fat distribution have higher rates of underreporting of energy intake than lean children (McPherson, 2000).

In other hand, overweight and normal children who gave acceptable-report were 26.7% and 37.6% respectively. This finding indicates no significant between overweight and normal-weight children in report acceptable dietary intake of their energy intake. Small number of children was reported as over-reported their dietary whereby (19.0%) overweight children and (18.8%) normal-weight children. However, issue of over-reporting of dietary intake addressed as children believe they are eating healthy and the percentage of children over-reporting their energy intake was found to be below 9% (Nelson et al., 1989).

4.6 Disordered Eating Behaviour

There were three major subscales covered in Children's version of Eating Attitudes Test (ChEAT), namely dieting, bulimia and food preoccupation as well oral control. In this study, the overall minimum score ChEAT obtained was 0 while the overall maximum ChEAT score was 61. The higher the ChEAT score, the more children in disordered eating.

There was significant association between body weight statuses with the option made in each subscale by children. The options were always, usually, often, sometimes, rarely and never. In dieting factors, item 11, 12 and 25 showed the significant associations between two groups. In dieting subscales (Table 4.5), overweight children always preoccupied to be thinner if compared to normal-weight children ($\chi^2 = 2$, $p < 0.001$). As overweight children, they often think about burning up calories when they exercise ($\chi^2 = 21.423$, $p < 0.001$). Overweight children has the impulse to vomit after meals ($\chi^2 = 13.951$, $p < 0.05$) compared to normal-weight children.

In bulimia and food preoccupation subscales, item 9 which is they vomit after eaten shows higher significantly association in overweight children compared to normal-weight ($\chi^2 = 17.108$, $p < 0.001$) (Table 4.6). In oral control, "other people think that they were too thin" were highly significantly associated to normal-weight if compared to overweight ($\chi^2 = 32.685$, $p < 0.001$); (Table 4.7). Inversely, it indicates that people does not think that overweight children as thin and they are physically big.

Table 4.5: Distributions frequency of dieting subscale in eating attitude by using ChEAT between overweight and normal-weight children

No	Always		Usually		Often		Sometimes		Rarely		Never	
	OW	NW	OW	NW	OW	NW	OW	NW	OW	NW	OW	NW
Dieting												
1	41(35.3)	35(30.2)	19(16.4)	17(14.7)	11(9.5)	9(7.8)	23(19.8)	16(13.8)	6(5.2)	20(17.2)	16(13.8)	19(16.4)
6	15(13.3)	19(16.2)	11(9.7)	20(17.1)	23(20.4)	14(12.0)	24(21.1)	16(13.7)	21(18.6)	22(18.8)	19(16.8)	26(22.2)
7	12(10.3)	9(7.7)	14(12.1)	14(12.0)	9(7.8)	8(6.8)	27(23.3)	16(13.7)	24(20.7)	26(22.2)	30(25.9)	44(37.6)
10	8(7.0)	6(5.2)	6(5.3)	6(5.2)	4(3.5)	5(4.3)	13(11.4)	10(8.6)	16(14.0)	14(12.1)	66(57.9)	75(64.7)
*11	52(45.2)	32(27.8)	11(9.6)	11(9.6)	14(12.2)	8(7.0)	21(18.3)	17(14.8)	11(9.6)	16(13.9)	6(5.2)	31(27.0)
*12	22(19.3)	13(11.1)	11(9.6)	19(16.2)	16(14.0)	3(2.6)	24(21.1)	22(18.8)	20(17.5)	22(18.8)	21(18.4)	38(32.5)
14	22(19.1)	19(16.2)	12(10.4)	5(4.3)	14(12.2)	14(12.0)	29(25.2)	23(19.7)	22(19.1)	27(23.1)	16(13.9)	29(24.8)
16	18(15.5)	13(11.2)	11(9.5)	15(12.9)	11(9.5)	10(8.6)	32(27.6)	29(25.0)	24(20.7)	31(26.7)	20(17.2)	13(11.5)
17	15(13.0)	7(6.0)	10(8.7)	13(11.1)	13(11.3)	14(12.0)	21(18.3)	19(16.2)	30(26.1)	23(19.7)	25(21.7)	41(35.0)
22	16(9.5)	11(9.5)	6(5.2)	11(9.5)	17(14.5)	12(10.3)	23(20.0)	20(17.2)	21(18.3)	28(24.1)	32(27.8)	34(29.3)
23	16(13.9)	10(8.6)	11(9.6)	15(12.9)	15(13.0)	9(7.8)	36(31.3)	28(24.1)	15(13.0)	25(21.6)	22(19.1)	29(25.0)
24	7(6.1)	6(5.2)	13(11.3)	4(3.4)	3(2.6)	8(6.9)	14(12.2)	15(12.9)	20(17.4)	18(15.5)	58(50.4)	65(56.0)
*25	29(25.0)	24(20.5)	6(5.2)	8(6.8)	14(12.1)	13(11.1)	31(26.7)	14(12.0)	21(18.1)	29(24.8)	15(12.8)	29(24.8)

Significant differences between body weight status were measured by chi-square: * $p < 0.05$

Table 4.6: Distributions frequency of bulimia and food preoccupation subscale in eating attitude by using ChEAT between overweight and normal-weight children

No		Always			Usually			Often			Sometimes			Rarely			Never		
		OW	NW	NW	OW	NW	NW	OW	NW	NW	OW	NW	NW	OW	NW	NW	OW	NW	NW
Bulimia and Food Preoccupation																			
3	I find myself preoccupied with food.	12(10.4)	20(17.2)	13(11.3)	15(12.9)	8(7.0)	11(9.5)	19(16.5)	21(18.1)	26(22.6)	25(21.6)	37(32.2)	24(20.7)						
4	I have gone on eating binges where I feel that I may not be able to stop.	9(7.8)	6(5.1)	5(4.3)	13(11.1)	7(6.0)	8(6.8)	16(13.8)	22(6.8)	43(37.1)	26(18.8)	36(31.0)	42(35.9)						
*9	I vomit after I have eaten.	6(7.8)	9(7.8)	11(9.6)	1(0.9)	3(2.6)	9(7.7)	13(11.4)	9(7.7)	13(11.4)	24(20.7)	68(59.6)	73(62.4)						
18	I feel that food controls my life.	9(7.8)	15(12.8)	9(7.8)	15(12.8)	8(6.9)	7(6.0)	25(21.6)	22(18.8)	30(25.9)	32(27.4)	35(30.2)	26(22.2)						
21	I give too much time and thought to food.	10(8.7)	10(8.7)	7(6.0)	9(7.8)	9(7.8)	5(4.3)	21(18.1)	9(7.8)	23(19.8)	23(20.0)	46(39.7)	59(51.3)						
26	I enjoy trying rich new foods	8(6.8)	9(7.7)	4(3.4)	3(2.6)	11(9.4)	3(2.6)	6(5.1)	14(12.0)	22(18.8)	14(12.0)	66(56.4)	74(63.2)						

Table 4.7: Distributions frequency of oral control subscale in eating attitude by using ChEAT between overweight and normal-weight children

No		Always			Usually			Often			Sometimes			Rarely			Never		
		OW	NW	NW	OW	NW	NW	OW	NW	NW	OW	NW	NW	OW	NW	NW	OW	NW	NW
Oral Control																			
2	I avoid eating when I am hungry.	13(11.2)	14(12.1)	15(12.9)	10(8.6)	7(6.0)	7(6.0)	25(21.6)	18(15.5)	28(24.1)	29(25.0)	28(24.1)	38(32.8)						
5	I cut my food into small pieces.	9(7.8)	10(8.7)	18(15.7)	15(13.0)	10(8.7)	8(7.0)	20(17.4)	24(20.9)	25(21.7)	26(2.6)	33(28.7)	32(27.8)						
8	I feel that others would prefer if I ate more.	9(7.8)	10(8.5)	7(6.0)	4(3.4)	9(7.8)	10(8.6)	14(12.1)	11(9.5)	17(14.7)	19(16.4)	60(51.7)	62(53.0)						
*13	Other people think that I am too thin	7(6.1)	27(23.5)	8(7.0)	14(12.2)	4(3.5)	9(7.8)	11(9.6)	19(16.5)	18(15.7)	16(16.2)	67(57.3)	30(25.6)						
15	I take longer than others to eat my meals.	10(8.6)	13(11.2)	8(6.8)	11(9.5)	19(16.4)	11(9.5)	26(22.4)	20(17.2)	19(16.4)	23(19.8)	34(29.3)	38(32.8)						
19	I display self-control around food	27(17.2)	20(17.2)	19(16.4)	19(16.4)	9(7.8)	9(7.8)	25(21.6)	25(21.6)	19(16.4)	19(16.4)	23(19.8)	24(20.7)						
20	I feel that others pressure me to eat.	9(7.8)	13(11.1)	12(10.3)	9(7.7)	14(12.1)	10(8.5)	24(20.7)	13(11.1)	16(13.8)	26(22.2)	41(35.3)	46(39.3)						

Significant differences between body weight status were measured by chi-square: * $p < 0.05$

Table 4.8 shows the distribution mean of subscales and total score of ChEAT among primary-school children. In dieting subscales, there was significant difference between overweight and normal-weight children ($t=2.389$, $p=0.018$). The mean score of ChEAT were 17.89 ± 11.55 for overweight children and 17.15 ± 12.00 for normal-weight children respectively ($t=0.444$, $p=0.657$).

Table 4.8: Mean of subscales and total score of ChEAT between overweight and normal-weight children

Subscales	Mean \pm SD		t-value
	OW	NW	
Dieting*	10.52 \pm 6.43	8.45 \pm 6.15	2.389
Bulimia and Food Preoccupation	3.33 \pm 3.15	4.12 \pm 3.13	-1.851
Oral Control	4.19 \pm 4.39	4.61 \pm 4.51	-0.702
Overall	17.89 \pm 11.55	17.15 \pm 12.00	0.444

Note: OW= Overweight Group NW= Normal-weight Group

Significant differences between body weight status on mean of disordered eating subscales were measured by the independent t -test: * $p < 0.05$

There is no significant difference in disordered eating between overweight and normal-weight children ($\chi^2 = 0.258$, $p = 0.657$). Majority of children in this study not disordered eating. But when compared between two groups, 30.8% OW children had disordered eating and normal weight children were 29.1%. Knez et al. (2006) discovered that early adolescents (10-14 years old) have moderately and severely disturbed eating behaviour. Figure 4.3 illustrated the distribution of children according to disordered eating and their body weight status.

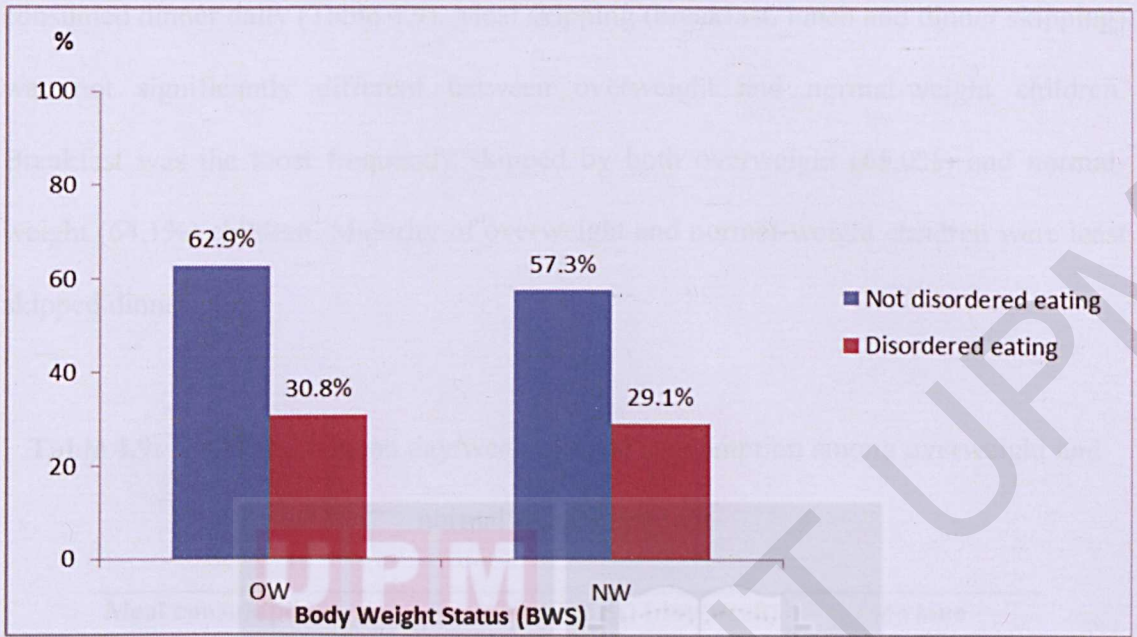


Figure 4.4: Distribution disordered eating frequency overweight and normal-weight children

4.7 Eating Behaviour

4.7.1 Meal Skipping

About 34.2% of the overweight children consumed breakfast daily in the past seven days compared to 35.0% of the normal-weight children. More than half of the overweight children (53.0%) and 46.6% of normal-weight children consumed lunch daily. Same as breakfast and lunch, dinner intake by children were more likely where 37.9% overweight children and slightly more (44.8%) of normal-weight children

consumed dinner daily (Table 4.9). Meal skipping (breakfast, lunch and dinner skipping) was not significantly different between overweight and normal-weight children. Breakfast was the most frequently skipped by both overweight (65.0%) and normal-weight (64.1%) children. Majority of overweight and normal-weight children were least skipped dinner.

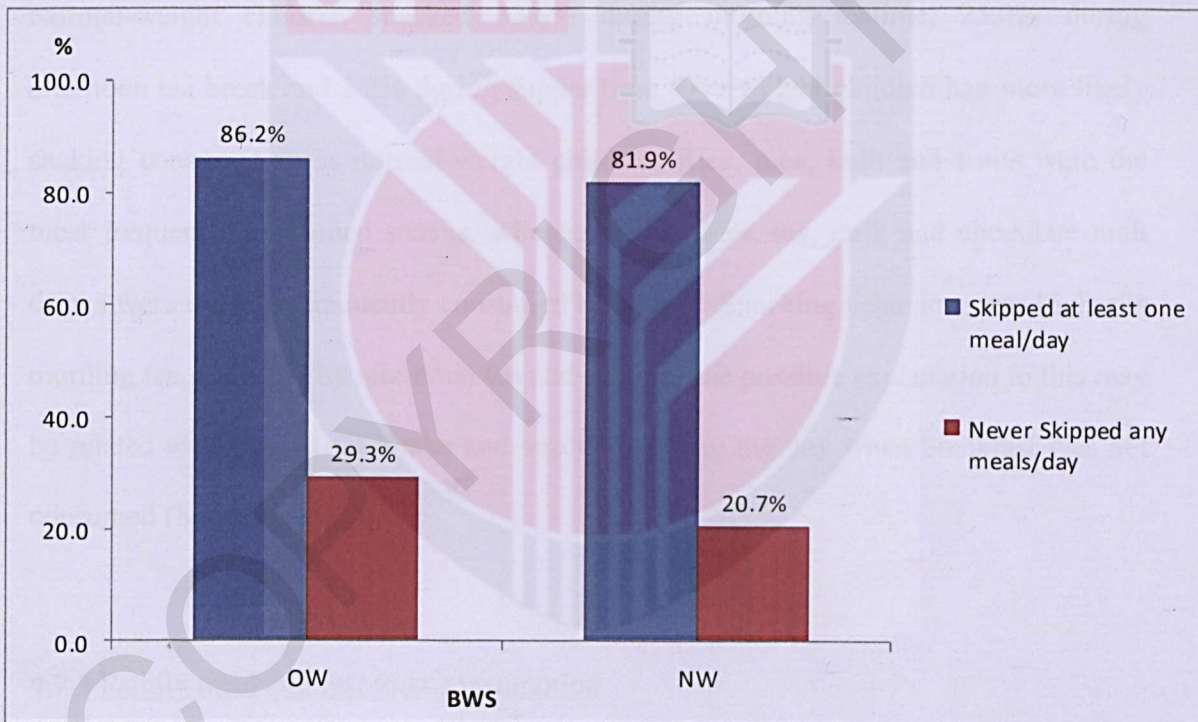
Table 4.9: Distribution mean day/week of meal consumption among overweight and normal weight children

Meal consumption	Mean \pm SD (day/week)		t-value
	OW	NW	
Main meal			
Breakfast	4.22 \pm 2.36	4.19 \pm 2.41	0.912
Lunch	5.23 \pm 2.24	5.07 \pm 2.15	0.570
Dinner	4.80 \pm 2.26	5.14 \pm 2.11	0.243
Snack between meal			
Morning tea	4.14 \pm 2.25	4.40 \pm 2.30	0.386
Afternoon tea	3.59 \pm 2.36	4.00 \pm 2.26	0.183
Supper	2.18 \pm 1.84	2.14 \pm 1.79	0.857

Meal skipping behaviour of the children was summarised as shown in Figure 4.4. From the figure, the meal skipping among overweight and normal-weight children were high compared to non-meal skipper. Overweight children (86.2%) skipped at least a meal per day compared to normal weight (81.9%). Ma et al. (2003) also reported that breakfast skipping was significantly linked to obesity as individuals who skipped breakfast tend to be hungry and may over eat during the next meal. Furthermore, habits

like frequent snacking, skipping of lunch and a sedentary lifestyle had been observed to be more common among individuals who skipped breakfast (Keski-Rahkonen *et al.*, 2003). Reasons for skipping breakfast given by the children include no appetite in the morning, no breakfast was prepared, no time for breakfast and the lack of awareness on the importance of breakfast (Savige *et al.*, 2007)

Figure 4.5: Meal skipping frequency between normal weight and overweight children



Overweight and obese children in the present study were more likely to skip breakfast compared to normal body weight children. There was no significant difference between overweight and normal-weight children. Moy, Gan and Siti Saleha (2006), who carried out a study on school children and adolescents in Kuala Lumpur,

reported that BMI was significantly linked to meal skipping, particularly breakfast. An earlier study has shown that children and adolescents who skipped breakfast have higher BMI and a higher risk of obesity compared to those who took breakfast regularly (Keski-Rahkonen *et al.*, 2003).

4.7.2 Snacking Behaviour

Table 4.9 shows the frequency days in a week snack between main meals. Normal-weight children snacked 33.6% during morning teatime, 25.0% during afternoon tea break and 5.2% during supper time. Overweight children had more likely snacking consumption as normal-weight children. Rice, mee, kuih and fruits were the most frequently consumed snacks, whereas plain water, tea, milk and chocolate malt drinks were the most frequently consumed beverages. Snacking behaviour was higher at morning tea, followed by afternoon tea and supper. The possible explanation to this may be related to increased fat intake and snacking during the day when breakfast was not consumed (Ma *et al.*, 2003).

4.7.3 Family meal and fast food consumption

About one-third of the reported that they were eaten at hawker centres, coffee shops or other food stalls daily (Table 4.10). More than half of the overweight and normal weight children less ate outside their homes. In term of ate at western fast food restaurants. Less overweight and normal weight children consume fast food. As for

eating companion, more overweight and normal weight children had their meals with family members (88.0%) and 83.6% respectively. Some of the normal-weight children took meal with others which neighbour (0.9%). Hensrud (2004) reported that causes of increased energy intakes include eating in restaurants and away from home, eating late at night, instant-availability of energy-dense foods and fast foods. Likewise, people will tend to eat larger amounts of foods when more time was spent on eating as well as when more food is served or readily available.

Table 4.10: Frequency of family meal and fast food consumption among overweight and normal-weight children

Frequency of family meal consumption		Frequency of fast food consumption	
OW	NW	OW	NW
Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
5.17 ± 4.50	4.31 ± 3.73	1.95 ± 1.44	2.29 ± 1.60
t=-4.837, p=0.065		t=-1.687, p=0.093	

4.8 Hypothesis Testing

H₀1: There is no significant difference in socio-demographic background (parental occupation, and parental monthly income) between overweight and normal-weight children.

Table 4.11: Hypothesis testing for socio-demographic background and body weight status

Socio-demographic background	χ^2/t	<i>p</i>
Father's occupation	8.43	0.143
Mother's occupation	6.45	0.197
Parental monthly income	2.416	0.149

Self-reported of parental occupation and parental monthly income were obtained and analyzed. The first null hypothesis was failed to be rejected as there was no significant difference in socio-demographic background between overweight and normal-weight children. A chi-square test was used to determine the difference in socio-demographic background of the parental occupation. It showed father's occupation ($\chi^2=8.43$, $p>0.05$), and mother's occupation ($\chi^2=6.45$, $p>0.05$). The independent samples t-test was used to determine the difference in parental monthly income. Based on table 4.11, it was found that there was no significant difference in term of parental monthly income in overweight and normal-weight children ($t=2.416$, $p>0.05$).

The finding was consistent with Case et al. (2002) who stated that parental occupation was not the main factor which lead to obesity. Furthermore, Wake et al. (2002) reported that parental occupation was not the main root for obesity problem. There were other reasons such as attitude of parents who usually did more purchasing power and do less cooking at home. Therefore, they were likely to consume outside

foods which were high in calories, fat and cholesterol and less nutrient-densed. Besides, Koster (2007) stated that the household income factor should not be blamed solely on the increasing of BMI.

H₀2a: There is no significant difference in dietary practices in energy intake between overweight and normal-weight children

Table 4.12: Hypothesis testing for energy intake and body weight status

Nutrients intake	<i>t</i>	<i>p</i>
Energy intake (kcal/day)	2.792	0.0001

The total energy intake data was assessed using two-day dietary intake recall. All the details were recorded and analyzed using Nutritionist Pro Diet Analysis. Table 4.13 represents the significance for total energy intake between overweight and normal-children. The independent samples t - test was used to determine the difference in total energy intake between overweight and normal-weight children. The null hypothesis for mean total energy intake was rejected ($t=2.792, p<0.001$). Hence, there was a significant difference in mean total energy intake between overweight and normal-weight children. The energy mean intake of overweight children was 2077 ± 753 kcal meanwhile for normal-weight children was 1808 ± 650 g. These had shown that overweight children tended to take more calories as compared to normal-weight children. This

finding was in line with a previous study (Johnson et al., 2008) which found that overweight children took more calorie intake compared to normal-weight children as they have bigger body weight and they usually eat more than required (Johnson et al., 2008). Passive overconsumption energy-dense and palatable diet may play a role in energy intake by children (Livingstone et al., 2001).

H₀2b: There is no significant difference in dietary practices in macronutrients and micronutrients intake between overweight and normal-weight children.

Table 4.13: Hypothesis testing for macronutrients and micronutrients intake and body weight status

	<i>t</i>	<i>p</i>
Carbohydrates (g/d)	2.479	0.012
Protein (g/d)	2.662	0.003
< RNI		
≥ RNI		
Fat (g/d)	1.350	0.345
Vitamin A (RE)	2.514	0.032
< RNI		
≥ RNI		
Vitamin C (mg/d)	1.545	0.088
< RNI		
≥ RNI		
Niacin (mg/d)	2.987	0.002
< RNI		
≥ RNI		
Calcium (mg/d)	1.673)	0.026
< RNI		
≥ RNI		
Iron (mg/d)	2.225	0.018
< RNI		
≥ RNI		

The macronutrients intake which had been assessed in this study was carbohydrates, protein and fat. The null hypothesis for carbohydrates and protein intake were rejected where the carbohydrates ($t=2.479$, $p<0.05$) and protein ($t=2.662$, $p<0.05$). There were significant differences in carbohydrates and protein intake between overweight and normal-weight children. However, the null hypothesis for fat intake was failed to be rejected where fat ($t=2.479$, $p>0.05$). Hence, there was no significant difference in fat intake between overweight and normal-weight children. Caplin et al. (2011) reported that overweight children had high carbohydrate food intake. Besides, consumption of sugary soft drinks was reported high in overweight children compared to normal-weight children as well (James et al., 2003).

According to Tucker et al. (1997), the intake of protein-rich foods, such as meat, poultry and fish high in overweight children. Besides, high protein intake in childhood may be linked to anthropometric characteristics, such as increased stature and increased muscle mass. Recent study shows that protein intake was higher in overweight children compared to normal-weight children.

The fruits and vegetables are rich in vitamins and minerals. According to Table 4.14, there were significant differences in niacin ($t=2.987$, $p=0.002$) and iron ($t=2.225$, $p=0.018$). Cavandi et al. (2000) have also reported that both overweight and normal-weight children had low consumption minerals and vitamins. This study also was consistent with (Bellisle et al., 2003) whereby the micronutrients were deficiencies in overweight children and normal-weight children.

H₀2c: There is no significant difference in dietary practices in disordered eating between overweight and normal-weight children.

Table 4.14: Hypothesis testing for disordered eating and body weight status

Subscales	<i>t</i>	<i>p</i>
Dieting*	2.389	0.018
Bulimia and Food Preoccupation	-1.851	0.065
Oral Control	-0.702	0.484
Overall	0.444	0.657

Independent samples t-test was used to determine the difference in disordered eating behaviour between overweight and normal-weight children. From the Table 4.14, the null hypothesis for disordered eating behaviour and...? failed to be rejected ($t=0.444, p>0.05$). Hence, there was not significant difference in disordered eating behaviour between overweight and normal-weight children. The disordered eating between overweight (30.8%) and normal-weight children (29.1%) was almost same in this study. According to Bryla et al (2003), the disordered eating was not directly related to body weight status and it was more to body perception and their attitude regarding their diet. Arnett (2005) reported that children have less disordered eating, but children who engaged in dieting more likely to have disordered eating. In this study, dieting subscales between overweight and normal-weight children shows significant difference ($t=2.389, p<0.05$).

H_{02d}: There is no significant difference in dietary practices in meal skipping between overweight and normal-weight children.

Table 4.15: Hypothesis testing for meal skipping and body weight status

Main Meals	<i>t</i>	<i>p</i>
Breakfast	0.912	0.253
Lunch	0.570	0.454
Dinner	0.243	0.572

Normally there are three main meals being eaten in a day, which is breakfast, lunch, and dinner. From the independent t-test, the null hypothesis was failed to be rejected since $p > 0.05$. It showed that there was no significant difference in meal consumption between overweight and normal-weight children. The most skipped main meal was breakfast ($t = 0.110$, $p > 0.05$), followed dinner ($t = -1.171$, $p > 0.05$) and lunch ($t = 0.568$, $p > 0.05$) as well.

Basically, skipping meals or failure to maintain a regular eating schedule can result in increased intakes when food is eaten. The meal skipping occurred in both overweight and normal-weight children. Previous studies showed that frequent skipped meal was directly linked to overweight and obesity. Hence, there was got chances to overweight children tend to stay overweight or become obese later on and normal-weight children will become overweight or obese in the future (Lioret et al., 2008). According to Lannelli (2007), overweight or normal-weight children who skip one

serving of main meal will tend to be hungrier than usual and will consume more servings on the next meal of the day.

H_{02e}: There is no significant difference in dietary practices in snacking behaviour between overweight and normal-weight children.

Table 4.16: Hypothesis testing for snacking behaviour and body weight status

Snacking Meals	<i>t</i>	<i>p</i>
Morning tea	0.386	0.234
Afternoon tea	0.183	0.013
Supper	0.857	0.353

Snacking behaviour was also known as snacking between the main meals. Snack between the main meals can be categorized to morning tea, afternoon tea, and supper. For snacking behaviour, the independent t-test shows there was no significant difference between overweight and normal-weight children. Thus, the null hypothesis was failed to be rejected. The snacking behaviour was high during morning tea ($t = -0.867$, $p > 0.05$), followed by afternoon tea ($t = -1.335$, $p > 0.05$) and supper ($t = 0.181$, $p > 0.05$).

The snacking behaviour between overweight and normal-weight children was almost the same. They took morning tea and afternoon tea for four days in a week,

and supper for two days in a week. Frequent snacking had been observed to be more common among overweight and normal-weight children who skipped their main meal (Keski-Rahkonen et al., 2003). Nicklas (2003) reported that frequent snacking behaviour was not the only factor which lead to overweight and obesity, yet snack intake was subjective on each individual. Mood, family and friends role could influence the snacking behaviour within children.

H₀2f: There is no significant difference in dietary practices in family meal consumption between overweight and normal-weight children.

Table 4.17: Hypothesis testing for family meal consumption and body weight status

	t	p
Family meal consumption	-4.837	0.065

For the family meal consumption, the independent t-test indicated that the null hypothesis was failed to be rejected as there was a significant difference between overweight and normal-weight children ($t=-4.837$, $p>0.05$). This shows that family meal consumption between overweight and normal-weight children was same. Besides family members, overweight and normal-weight children also ate with peers and alone. The major factor in family meal consumption was attachment with family. Children who attached with their family usually had meal consumption with family (Aapehlens et al., 2014). Chin and Mohd Nasir (2009) reported that at least three in four participants

usually eat with family member. Not only that, as children not matured enough, parents will bring them to eat outside (Fiese and Schwartz, 2008).

H₀2g: There is no significant difference in dietary practices in fast food consumption between overweight and normal-weight children.

Table 4.18: Hypothesis testing for fast food consumption and body weight status

	t	p
Frequency of fast food consumption	1.687	0.093

For this null hypothesis, independent samples t-test was used to determine the difference in fast food consumption between overweight and normal-weight children. From the Table 4.19, the null hypothesis for mean fast food intake failed to be rejected ($t=1.687$, $p>0.05$). Hence, there was not significant difference in fast food consumption between overweight and normal-weight children.

According to Karuppiah et al. (2008), the fast food consumption between overweight and normal-weight children did not have much difference. The body weight status was not influenced by fast food consumption, and there were other reasons such as advertisement and media mass whereby they would attract children by catchy and appetizing advertisement. The food choices in such outlets were mostly nutrient imbalanced as they serve a large amount of carbohydrate source and limited amount of

vegetables and fruits. Previous study showed the rising number of fast food outlets and promotional activities significantly contribute to high consumption of fast food among children and adolescents (Moy et al., 2004).

CHAPTER 4

DISCUSSION AND RECOMMENDATION



CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

In Phase I of the study anthropometric measurements were measured. The purpose of this phase was to determine the overweight and normal-weight student as potential subject. The prevalence of overall overweight and obese among Puchong primary school-age children (10-11years) was high (35.6%). One-third was found to be overweight and obese. The prevalence of overweight and obesity was three times higher than thinness and severe thinness (11.7%). Phase II conducted to obtain same number of normal-weight children to that overweight children. Out of screened 384 primary school children screened, 117 overweight and obese respondents (OW) were matched pair for age, gender and ethnicity with 117 normal- weight (NW) respondents. This present

study sample consisted of 44.0% males and 56.0% females with a mean age of 10.75 ± 0.43 years. Majority of the respondents were Malays (94.0%), followed by Indians (4.0%) and Chinese (2.0%).

As overall, there were no significant differences between overweight and normal-weight children regards to their socio-demographic background. There were all father of overweight children had received formal education while for father of normal-weight children, only one of them not received a formal education during the primary school. All of the mothers from the normal-weight group did receive any formal education while only one mother of overweight children with no formal education. Among children's father, most of them work in plant and machine-operators (27.1 %). It followed by professional's work (25.9%) and technicians and associate professionals (18.8%). For mothers, highest percentage fall to unemployed category and second highest was observed for professional setting where 22.4%. For parental monthly income of overweight children was $RM5364.91 \pm 9864.23$ while for normal-weight children was $RM4237.44 \pm 3396.35$.

Overweight children showed significantly higher mean intakes of energy and most nutrients than normal-weight children. More than half of the total energy intake for both overweight and normal-weight were contributed by carbohydrates, followed by fat and by protein. Results indicate that the mean of almost of the nutrients for overweight and normal-weight children did not meet the RNI for Malaysians. There significant differences in energy, protein, carbohydrates, vitamin A, niacin, calcium and

iron where overweight children has higher intake compared to normal-weight children. The energy intake mean for overweight was 2077 ± 753 and normal-weight was 1808 ± 650 . A majority of the overweight children achieved the RNI levels for protein, Vitamin C and niacin compared to normal-weight children ($p < 0.05$). Where the protein ($\chi^2 = 7.115, p = 0.008$), Vitamin C ($\chi^2 = 3.757, p = 0.053$) and niacin ($\chi^2 = 10.548, p = 0.001$). This study indicated the food and calorie intake of overweight children were higher compared to normal-weight children.

Both overweight and normal-weight children are more likely to less eating disorder behaviour (17.89 ± 11.55 for overweight children and 17.15 ± 12.00 for normal-weight children). In dieting factors, item 11, 12 and 25 shows the significant associations between two groups. Overweight children preoccupied to be thinner compared to normal-weight children ($\chi^2 = 2, p < 0.001$). As overweight children, they think about burning up calories when they exercise ($\chi^2 = 21.423, p < 0.001$). 25th item, which was OW children has the impulse to vomit after meals ($\chi^2 = 13.951, p < 0.05$). In bulimia and food preoccupation, item 9 which is they vomit after eaten shows higher significantly association in overweight compared to normal-weight ($\chi^2 = 17.108, p < 0.001$). In oral control, "other people think that they were too thin" were highly significantly associated to normal-weight if compared to overweight ($\chi^2 = 32.685, p < 0.001$).

The finding shows higher percentage of the overweight and normal-weight children skipped at least a meal in a day. Breakfast was the most frequently skipped

meal while lunch was the least skipped. Both groups frequently snacked during morning tea and least at supper). As for family meal consumption, the percentage of overweight and normal weight children having their meals with family members was high. More than half of the overweight and normal weight children ate less outside food compared to their home food. Besides, about half of both groups ate at fast food restaurants once a week. There were no significant differences in meal consumption, snacking behavior, family meal consumption, and fast food consumption.

This was consistent with the global trend of childhood obesity in a developing country. Overweight and obesity were likely influenced by dietary practices. Hence, promoting healthy dietary practices should be incorporated in the future obesity prevention programs among children. These findings provide evidence-based information for relevant stakeholders and policy makers in the planning and implementation of strategic interventional programs in combating overweight among school-age children in Putrajaya. Overweight and obesity were influenced by dietary practices in total energy intake, macronutrients and micronutrients intake. Future studies should focus on determining factors associated with misreporting of nutrient intake in overweight and normal-weight children.

5.2 Limitation of study

There were several limitations that should be taken into consideration when interpreting the findings in this study. This study might not represent of the whole population of primary school children. However, it represents the population school children in Puchong aged 10-11 years old. The temporal relationship could not be established due to the cross-sectional comparative study design used in this study. Furthermore, the questionnaire were self-reported which highly dependent on the participants' memory, honesty and truthfulness in answering the questions. Hence, the results may not reveal the actual dietary intake and eating behaviour of the children. Last but not least, the use of 24-hour dietary recall as a single measurement for dietary assessment may not be adequate. It is suggested that future studies use a combination of 24-hour dietary recall, food diary, and food frequency questionnaire to further ascertain the accuracy of the assessment. The misreporting of dietary intake may occur. However, the misreport of the dietary intake was assessed in this study as well.

5.3 Recommendation

The prevalence of overweight and obesity was high among primary school children in the present study. Hence, there is needed to implement health intervention programs in order to prevent further increase in the prevalence of overweight and obesity. This study found that dietary practices were associated with body weight status

between overweight and normal-weight children. It is recommended that component of dietary practices such as meal consumption, snacking behaviors, family meal consumption, fast food consumption, total energy intake, macronutrient and micronutrients intake, and disordered eating be incorporated in the future health intervention programs. Information on healthy diet, healthy food choices and appropriate energy intake should be educated to children. Besides, seminar and exhibition can be organized in school to promote awareness on healthy diet, healthy food choices and appropriate energy intake among children.

In addition, parents should be a good role model for their children as they play an important role in helping their children to adopt a healthy lifestyle. Besides, recent study shows that children spend more time with their parents for meal time as they stay with them. Thus, parents are encouraged to provide healthy and nutritious foods for their children. Parents should ensure that their children received adequate meals as more than half children found skipped at least one meal per day in this study. Overall, parents role are vital in being good example for their children's eating behaviour and practicing healthy lifestyle.

Moreover, mass media should play active role in aspect of body image by displaying normal-size figures instead displaying too slim and thin figures as ideal or pretty. Media mass also can contribute in promoting healthy lifestyles by distributing correct information on healthy weight management and dietary practices. As overall,

future intervention and prevention programs for children should be focus on dietary practices which can affect their quality of life as well.

5.2.1 Future studies

1. The early recognition of nutrition problem among children is real important for planning and implementing various prevention measures and intervention plans. Hence, more future studies should be done to younger age of children to prevent overweight and obesity.
2. Future research should be done on the nutritional status particularly on overweight and obese children and the associated factors for higher prevalence.
3. Future studies should be conducted together with their parents in order to determine the related factors contributed to overweight and obesity as well more accurate finding will be obtained as children have poor memories compared to their parents and children spend more time with their parents.

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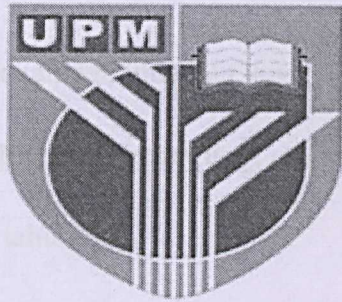
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APPENDICES



JABATAN PEMAKANAN & DIETETIK

FAKULTI PERUBATAN DAN SAINS KESIHATAN

UNIVERSITI PUTRA MALAYSIA

SARINGAN KESIHATAN

PENYELIDIK: SHAMINI A/P CHANDRASEE KHARAN

SUPERVISOR: DR. CHIN YIT SIEW

Arahan: Sila nyatakan dan bulatkan jawapan anda.

a) **Butiran- butiran responden:**

Umur: _____ tahun

Tarikh lahir (hh/bb/thn): _____

Etnik:

- a) Melayu
- b) Cina
- c) India
- d) Lain-lain (sila nyatakan) : _____

a) **Ukuran Antropometrik (Diisi oleh penyelidik):**

	Bacaan I	Bacaan II	Bacaan III	Purata
Tinggi (cm)				
Berat (kg)				

b) **Index Jisim Tubuh (IJT) (Diisi oleh penyelidik):**

- Klasifikasi IJT untuk umur:
- Kekurangan berat badan
 - Berat badan normal
 - Berlebihan berat badan
 - Obes



UNIVERSITI PUTRA MALAYSIA
43400 UPM SERDANG,
SELANGOR DARUL EHSAN.

NAMA PENYELIDIK: SHAMINI A/P CHANDRASEE KHARAN

NAMA SUPERVISOR: DR. CHIN YIT SIEW

BORANG SOAL SELIDIK – SET MURID

QUESTIONNAIRE- STUDENT SET

Arahan:

Instructions:

1. Silajawab semua soalan di dalam borang ini.
Kejujuran anda dalam menjawab soal selidik ini amat diharapkan.

Please answer all questions in this form. Your honesty in answering this questionnaire is very reliable.

2. Sila rujuk penyelidik untuk sebarang pertanyaan.

Please refer to the researcher for any questions.

3. Segala maklumat yang diberikan adalah sulit dan hanya untuk tujuan penyelidikan sahaja.

All the information given will remain confidential and only for research purposes.

Segala kerjasama anda amat dihargai dan didahulukan dengan ucapan terima kasih.

Your cooperation is highly appreciated and thank you.

Bahagian A: Sila isi atau tanda pernyataan berkenaan (/)**Part A** : Please fill in the form (/).

1. Jantina Gender : Lelaki Male Perempuan Female
2. Kumpulan etnik/ bangsa Ethnicity/race : Melayu Malay
- Cina Chinese
- India Indian
- Lain- lain Others (nyatakan please state:........)

3. Tarikh lahir (hari/ bulan/ tahun) : /
- Date of birth (date/month/year) : / /
4. Bilangan adik- beradik (termasuk anda) :
4. Number of siblings (including yourself) :
5. Anda anak ke-berapa? :
5. Which child are you among your siblings? :
6. Latarbelakangsocio-demografi :
6. Socio-demographic background :

	Bapa(Father)	Ibu(Mother)
a) Taraf pendidikan Educational level	<input type="radio"/> Tiada bersekolah formal (No formal schooling) <input type="radio"/> Sekolah rendah (UPSR) <input type="radio"/> Sekolah Menengah Bawah (PMR)/SRP <input type="radio"/> Sekolah Menengah Atas (SPM)/ MCE <input type="radio"/> Pre-Universiti (STPM/ Diploma/ A level) <input type="radio"/> Bachelor Muda(Bachelor /Degree) <input type="radio"/> Ph D/ Sarjana(Master)	<input type="radio"/> Tiada bersekolah formal (No formal schooling) <input type="radio"/> Sekolah rendah (UPSR) <input type="radio"/> Sekolah Menengah Bawah (PMR)/SRP <input type="radio"/> Sekolah Menengah Atas (SPM)/ MCE <input type="radio"/> Pre-Universiti (STPM/ Diploma/ A level) <input type="radio"/> Bachelor Muda(Bachelor /Degree) <input type="radio"/> Ph D/ Sarjana(Master)
b) Pekerjaan Occupation		
c) Jumlah Pendapatan Sebulan (RM) Total household income (RM)		

Bahagian B: bulatkan jawapan anda ditempat disediakan untuk setiap soalan
Part B: Please circle your answers in the space provided for each question.

1. Siapakah yang biasanya makan bersama anda?

1. Who usually eat with you?

- | | |
|-----------------------|-----------------------------------|
| a. Ahli keluarga saya | b. Rakan-rakan saya |
| a. My family member | b. My friends |
| c. Bersendirian | d. Lain-lain, silanyatakan: _____ |
| c. Alone | d. Other, please specify: _____ |

2. Yang manakah pernyataan berikut **PALING TEPAT** menggambarkan pengambilan makanan anda?

2. Which of the following statements **BEST** describes your food intake?

- | | |
|---|---|
| a. Saya menjaga pengambilan makanan saya dengan mengurangkan makanan tinggi lemak dan gula. | a. I keep my food intake by reducing foods high in fat and sugar. |
| b. Saya menjaga pengambilan makanan saya dengan mengurangkan makanan yang tinggi lemak, manis dan juga daging merah (seperti daging lembu dan kambing). | b. I keep my food intake by reducing foods high in fat, sweet and red meat (such as beef and lamb). |
| c. Saya menjaga pengambilan makanan saya dengan mengurangkan makanan yang tinggi lemak. | c. I keep my food intake by reducing foods high in fat. |
| d. Saya seorang vegetarian. | d. I am a vegetarian. |
| e. Saya sedang mengambil menu berdiet tertentu untuk mengurangkan berat badan. | e. I am taking a certain diet menu to lose weight. |
| f. Saya mencuba kurangkan makan untuk mengurangkan berat badan walaupun saya tiada menu berdiet tertentu. | f. I try eating less to lose weight even though I have no specific diet menu. |
| g. Saya tidak memilih jenis makanan dan makan apa sahaja yang ada. | g. I did not choose the type of food and eat whatever is available. |
| h. Tiada satu pernyataan di atas adalah tepat bagi pengambilan makanan saya. Sila nyatakan pengambilan sajian anda: _____ | |
| h. None of the above statements is correct for my food intake. Please indicate your meal intake: :: _____ | |

3. Adakah anda menyertai sebarang program untuk mengubah berat badan anda?

3. Do you participate in any program to change your weight?

- | | |
|--------|----------|
| a. Ya | b. Tidak |
| a. Yes | b. No |

Jika **Ya**, apakah program yang anda ambil?
If yes, what program you take?

Jika **Ya**, siapakah yang menasihati anda menyertai program tersebut?
If Yes, who is advising you to join the program?

4. Adakah anda mengambil sebarang suplemen tambahan (seperti pil vitamin)?
4. Are you taking any additional supplements (such as vitamin pills)?

- a. Ya b. Tidak
- a. Yes b. No

Jika **Ya**, apakah makanan suplemen yang anda ambil dan kekerapan pengambilannya (contoh: satu tablet setiap hari, dua kapsul setiap hari)?
If Yes, what foods and supplements that you are taking the medication frequency (example: one tablet per day, two capsules per day)?

Suplemen tambahan <i>Additional supplementation</i>	Kekerapan <i>Frequency</i>
i) _____	_____
ii) _____	_____
iii) _____	_____

Jika **Ya**, siapakah yang menasihati anda mengambil suplemen tambahan tersebut?
If Yes, who advise you to take additional supplements?

Sila pilih satu jawapan dan bulatkannya

Please select an answer and circle it

No	Kenyataan (Details)	Berapa HARI dalam seminggu... How many DAYS in a week...						
		1	2	3	4	5	6	7
1	Anda mengambil <u>sarapan pagi</u> ? <i>You eat breakfast?</i>	1	2	3	4	5	6	7
2	Anda mengambil <u>minum pagi</u> ? <i>You take a drink in the morning?</i>	1	2	3	4	5	6	7
3	Anda mengambil <u>makan tengahari</u> ? <i>You take a lunch?</i>	1	2	3	4	5	6	7
4	Anda mengambil <u>minum petang</u> ? <i>You take afternoon tea?</i>	1	2	3	4	5	6	7
5	Anda mengambil <u>makan malam</u> ? <i>You take dinner?</i>	1	2	3	4	5	6	7
6	Anda mengambil <u>makan lewat malam</u> ? <i>You take supper?</i>	1	2	3	4	5	6	7
7	Anda makan di medan selera, kedai kopi, atau gerai makanan? <i>You eat in the food court, coffeeshop, or food stall?</i>	1	2	3	4	5	6	7
8	Anda makan di restoran makanan barat? <i>You eat western food restaurants?</i>	1	2	3	4	5	6	7
9	Anda membungkus/membeli dengan penghantaran (delivery) makanan dari restoran makan barat? <i>You pack/buy with delivery (delivery) eat western food restaurants?</i>	1	2	3	4	5	6	7
10	Sila nyatakan <u>3 jenis makanan atau minuman utama</u> yang biasa anda ambil di antara masa makan utama (seperti teh, susu, kuih-muih, aiskrim, buah-buahan, snek bungkusan, pisang goreng dan lain-lain lagi) dan <u>kekerapan</u> pengambilannya <i>Please indicate the 3 major types of food or drink that you normally take in between main meals (such as tea, milk, cakes, ice cream, fruit, snack packs, fried bananas and others) and how often taken</i>							
<u>Makanan (Food)</u>								
	i)	1	2	3	4	5	6	7
	ii)	1	2	3	4	5	6	7
	iii)	1	2	3	4	5	6	7
<u>Minuman (Beverages)</u>								
	i)	1	2	3	4	5	6	7
	ii)	1	2	3	4	5	6	7
	iii)	1	2	3	4	5	6	7

Bahagian C:**Part C:**

Berikut adalah soalan mengenai sikap pemakanan anda. Cuba fikir bagaimana anda makan. Terdapat 6 pilihan bagi setiap soalan. Sila pilih satu jawapan dan bulatkannya.

Below are questions about your eating behaviour. Try to think on how you will eat. Please choose a response for each of the following statements:

1 = Selalu/Sentiasa (Always) 2 = Biasanya (Usually) 3 = Kerap kali (Often)
4 = Kadang kala (Sometimes) 5 = Jarang (Rarely) 6 = Tidak pernah (Never)

No	Kenyataan (Details)	Skala (Scale)					
		1	2	3	4	5	6
1	Saya sangat takut akan berlebihan berat badan. <i>I am terrified about being overweight.</i>	1	2	3	4	5	6
2	Saya mengelak daripada makan apabila lapar. <i>I avoid eating when I am hungry.</i>	1	2	3	4	5	6
3	Saya sentiasa fikir tentang makanan. <i>I find myself preoccupied with food.</i>	1	2	3	4	5	6
4	Saya pernah makan dengan terlalu banyak yang mana saya berasa tidak mampu berhenti makan. <i>I have gone on eating binges where I feel that I may not be able to stop.</i>	1	2	3	4	5	6
5	Saya memotong makanan saya kepada kepingan-kepingan kecil. <i>I cut my food into small pieces.</i>	1	2	3	4	5	6
6	Saya sedar akan kandungan tenaga (kalori) dalam makanan yang saya makan. <i>I am aware of the calorie content of foods that I eat.</i>	1	2	3	4	5	6
7	Secara khususnya, saya mengelakkan makan makanan yang tinggi kandungan karbohidrat (seperti roti, nasi, potato dan lain-lain) <i>I particularly avoid food with high carbohydrate content (i.e. bread, rice, potatoes, etc.)</i>	1	2	3	4	5	6
8	Saya berasa orang lain suka saya makan dengan lebih banyak. <i>I feel that others would prefer if I ate more.</i>	1	2	3	4	5	6
9	Saya muntah selepas saya makan. <i>I vomit after I have eaten.</i>	1	2	3	4	5	6
10	Saya berasa sangat bersalah selepas makan. <i>I feel extremely guilty after eating.</i>	1	2	3	4	5	6

No	Kenyataan (Details)	Skala (Scale)					
		1	2	3	4	5	6
11	Saya selalu memikirkan ingin menjadi kurus. <i>I am preoccupied with a desire to be thinner.</i>	1	2	3	4	5	6
12	Saya memikirkan tentang pembakaran tenaga (kalori) apabila saya bersenam. <i>I think about burning up calories when I exercise.</i>	1	2	3	4	5	6
13	Orang lain berasa saya terlalu kurus. <i>Other people think that I am too thin</i>	1	2	3	4	5	6
14	Saya selalu fikir tentang lemak yang terkandung dalam badan saya. <i>I am preoccupied with the thought of having fat on my body</i>	1	2	3	4	5	6
15	Saya mengambil masa yang lebih lama daripada orang lain untuk makan. <i>I take longer than others to eat my meals.</i>	1	2	3	4	5	6
16	Saya mengelakkan pengambilan makanan yang bergula. <i>I avoid foods with sugar in them.</i>	1	2	3	4	5	6
17	Saya makan makanan yang dikhaskan untuk berdiet. <i>I eat diet foods.</i>	1	2	3	4	5	6
18	Saya berasa makanan mengawal kehidupan saya. <i>I feel that food controls my life.</i>	1	2	3	4	5	6
19	Saya menunjukkan kawalan diri apabila berhadapan dengan makanan. <i>I display self-control around food</i>	1	2	3	4	5	6
20	Saya berasa orang lain memberi tekanan kepada saya untuk makan. <i>I feel that others pressure me to eat.</i>	1	2	3	4	5	6
21	Saya menggunakan terlalu banyak masa dan fikiran terhadap makanan. <i>I give too much time and thought to food.</i>	1	2	3	4	5	6
22	Saya berasa tidak selesa selepas makan makanan yang manis. <i>I give too much time and thought to food.</i>	1	2	3	4	5	6
23	Saya mengamalkan tingkah laku berdiet. <i>I engage in dieting behavior</i>	1	2	3	4	5	6
24	Saya suka perut saya kosong. <i>I like my stomach to be empty.</i>	1	2	3	4	5	6
25	Saya berasa hendak muntah selepas makan. <i>I have the impulse to vomit after meals.</i>	1	2	3	4	5	6
26	Saya suka mencuba makanan baru. <i>I enjoy trying rich new foods.</i>	1	2	3	4	5	6

Bahagian D:**Part D:**

Berpadankan contoh di bawah, sila rekodkan SEMUA MAKANAN DAN MINUMAN yang anda ambil SEMALAM

According to example below, please record ALL FOOD AND BEVERAGES you take YESTERDAY

CONTOH PENGAMBILAN MAKANAN**EXAMPLE OF FOOD INTAKE**

Sajian <i>Meal</i>	Lokasi <i>Place</i>	Jenis makanan/ minuman yang diambil <i>Type of food/beverages taken</i>	Kuantiti <i>Quantity</i>
Sarapan Pagi <i>Breakfast</i>	Kedai Stall	<ul style="list-style-type: none"> - nasi lemak <i>nasi lemak</i> • Telur rebus <i>Boiled Egg</i> • Sambal ikan bilis <i>Anchovies sambal</i> • Kacang tanah <i>ground nut</i> • Timun <i>cucumber</i> - Air tin (iced lemon tea) <i>Can drinks (iced lemon tea)</i> 	<ul style="list-style-type: none"> - 1 cawan <i>1 cup</i> - separuh <i>Half</i> - ¼ cawan <i>¼ cup</i> - ¼ cawan <i>¼ cup</i> - ¼ cawan <i>¼ cup</i> - 2 potong kecil <i>2 small</i> - 1 tin <i>1 can</i>

No. Rujukan: _____

Tarikh:

Date:

Hari: Pertama/ Kedua

Day: First/ Second

Sajian Meal	Lokasi Place	Jenis makanan/ minuman yang diambil Type of food/beverages taken	Kuantiti Quantity

Sekian, terima kasih.

Thank you.



UNIVERSITI PUTRA MALAYSIA
43400 UPM SERDANG,
SELANGOR DARUL EHSAN.

NAMA PENYELIDIK: SHAMINI A/P CHANDRASEE KHARAN

NAMA SUPERVISOR: DR. CHIN YIT SIEW

問卷 (學生)

Questionnaire-Student's set

填答注意事項:

Instructions:

1. 請填寫以下題目，您的回答將對這項研究極有助益。

Please answer all questions in this form. Your honesty in answering this questionnaire is very reliable.

2. 若有任何問題，請詢問研究者。

Please refer to the researcher for any questions.

3. 本問卷結果不公開且僅供學術用途使用，請您放心填寫。

All the information given will remain confidential and only for research purposes.

誠摯感謝您的協助。

Your cooperation is highly appreciated and thank you.

第一部份: 請填寫以下的資料。

Part A : Please fill in the form (I).

1. 性別 *Gender* : 男性 Male 女性 Female

2. 族群 *Ethnicity/race*: 馬來人 Mal

華人 *Chinese*

印度人 *Indian*

其他 *Others* (其他 *please state:.....* ...)

3. 出生年月日 *Date of birth*:

4. 家中兄弟姊妹 (包含您本人) *Number of siblings (includes you)*:

5. 您在家中的長幼順序為 *Which child are you among your siblings?*:

6. 家庭背景資料 *Socio-demographic background*: :

	父親 (<i>Father</i>)	母親 (<i>Mother</i>)
a) 學歷 <i>Educational level</i>	<input type="radio"/> 没有正规教育 (<i>No formal schooling</i>) <input type="radio"/> 小学 (UPSR) <input type="radio"/> 初中 (中一至中三) (PMR)/SRP <input type="radio"/> 高中 (中四至中五) (SPM)/ MCE <input type="radio"/> 大学先修班 (STPM/ <i>Diploma/ A level</i>) <input type="radio"/> 大学 (<i>Bachelor/Degree</i>) <input type="radio"/> (碩博士) (<i>Master</i>)	<input type="radio"/> 没有正规教育 (<i>No formal schooling</i>) <input type="radio"/> 小学 (UPSR) <input type="radio"/> 初中 (中一至中三) (PMR)/SRP <input type="radio"/> 高中 (中四至中五) (SPM)/ MCE <input type="radio"/> 大学先修班 (STPM/ <i>Diploma/ A level</i>) <input type="radio"/> 大学 (<i>Bachelor/Degree</i>) <input type="radio"/> (碩博士) (<i>Master</i>)
b) 職業 <i>Occupation</i>		
c) 家庭每月總收入 <i>Total household income (RM)</i>		

Part B:

请圈出你的答案。

Please circle your answers in the space provided for each question.

1. 您平常和谁一起享用食物？

1. Who usually eat with you?

a. 家人

b. 朋友

a. My family member

b. My friends

c. 独自一人

d. 其他 (请注明): _____

c. Alone

d. Other, please specify: _____

2. 以下哪项有关您的饮食习惯是最恰当的？

2. Which of the following statements best describes your food intake?

a. 我会照顾自己的饮食，减少高脂肪和高糖分的食物。

a. I keep my food intake by reducing foods high in fat and sugar.

b. 我会照顾自己的饮食，减少高脂肪、高糖分及红肉（牛肉、羊肉）

b. I keep my food intake by reducing foods high in fat, sweet and red meat (such as beef and lamb).

c. 我会照顾自己的饮食，减少高脂肪的食物。

c. I keep my food intake by reducing foods high in fat.

d. 我是一位素食者。

d. I am a vegetarian.

e. 我用特定的饮食菜单来达到瘦身效果。

e. I am taking a certain diet menu to lose weight.

f. 我尝试减少饮食分量来达到瘦身的效果。

f. I try eating less to lose weight even though I have no specific diet menu.

g. 我不特地选择各类食物，只吃现有的食物。

g. I did not choose the type of food and eat whatever is available.

h. 以上所说都不符合我的饮食习惯。请注明您的饮食菜单: _____

h. None of the above statements is correct for my food intake. Please indicate your meal intake: _____

3. 您是否曾经参与任何改变您体重的计划？

3. Do you participate in any program to change your weight?

a. 是

b. 无

a. Yes

b. No

若是，请问是什么计划？

If yes, what program you take?

若是，谁劝您参与此计划？

If Yes, who is advising you join the program?

4. Adakah您是否有服用补充营养素（例：维他命C）？

4. *Are you taking any additional supplements (such as vitamin pills)?*

a. 有

b. 没有

a. *Yes*

b. *No*

若有，请问您食用什么营养素及服用分量（例：每天一粒，每天2颗）？

If Yes, what foods and supplements that you are taking the medication frequency (example: one tablet per day, two capsules per day)?

营养素

服用分量

Additional supplementation Frequency

- i) _____
- ii) _____
- iii) _____

若有，谁劝您服用额外营养素？

If Yes, who advise you to take additional supplements?

Part C:

请圈出一个答案。

Please select an answer and circle it

序 No	档案 Details	多少天在一个星期... How many DAYS in a week...						
		1	2	3	4	5	6	7
1	您食用早餐? <i>You eat breakfast?</i>	1	2	3	4	5	6	7
2	您食用上午茶? <i>You take a drink in the morning?</i>	1	2	3	4	5	6	7
3	您食用午餐? <i>You take a lunch?</i>	1	2	3	4	5	6	7
4	您食用下午茶? <i>You take afternoon tea?</i>	1	2	3	4	5	6	7
5	您食用晚餐? <i>You take dinner?</i>	1	2	3	4	5	6	7
6	您食用宵夜? <i>You take supper?</i>	1	2	3	4	5	6	7
7	您在咖啡店、食物档口享用食物? <i>You eat in the food court, coffeeshop, or foodstall?</i>	1	2	3	4	5	6	7
8	您享用西餐餐厅的食物? <i>You eat western food restaurants?</i>	1	2	3	4	5	6	7
9	您是否叫外卖? <i>You pack/buy with delivery (delivery) eat western food restaurants?</i>	1	2	3	4	5	6	7
10	请注明3种经常食用的食物或饮料（例如：奶茶、牛奶、糕点、冰淇淋、水果、零食、炸香蕉糕和其它）及食用次数。 <i>Please indicate the 3 major types of food or drink that you normally take in between main meals (such as tea, milk, cakes, ice cream, fruit, snack packs, fried bananas and others) and how often taken</i>							
	<u>食物 (Food)</u>							
	i)	1	2	3	4	5	6	7
	ii)	1	2	3	4	5	6	7
	iii)	1	2	3	4	5	6	7
	<u>饮料 (Beverages)</u>							
	i)	1	2	3	4	5	6	7
	ii)	1	2	3	4	5	6	7
	iii)	1	2	3	4	5	6	7

以下是有关你饮食行为的问题。请选择一个答案。

Below are questions about your eating behaviour. Try to think on how you will eat. Please choose a response for each of the following statements:

1 =总是(Always) 2 =很经常(Usually) 3 =经常(Often)

4 =有时(Sometimes) 5 =很少(Rarely) 6 =从来没有(Never)

编号 No	项目(Details)	(Scale)					
		1	2	3	4	5	6
1	我害怕超重 <i>I am terrified about being overweight.</i>	1	2	3	4	5	6
2	当我饿了，我会避免进食 <i>I avoid eating when I am hungry.</i>	1	2	3	4	5	6
3	很多时候我都在想食物 <i>I find myself preoccupied with food.</i>	1	2	3	4	5	6
4	我觉得我可能无法停止地大吃大喝 <i>I have gone on eating binges where I feel that I may not be able to stop.</i>	1	2	3	4	5	6
5	我把我的食物切成小块 <i>I cut my food into small pieces.</i>	1	2	3	4	5	6
6	我知道我所吃的食物的热量（卡路里） <i>I am aware of the calorie content of foods that I eat.</i>	1	2	3	4	5	6
7	我试图远离一些食物，如面包，马铃薯和饭 <i>I particularly avoid food with high carbohydrate content (i.e. bread, rice, potatoes, etc.)</i>	1	2	3	4	5	6
8	我觉得别人会希望我吃多一些 <i>I feel that others would prefer if I ate more.</i>	1	2	3	4	5	6
9	进食后，我会吐 <i>I vomit after I have eaten.</i>	1	2	3	4	5	6
10	进食后，我觉得很内疚 <i>I feel extremely guilty after eating.</i>	1	2	3	4	5	6
11	我想了很多让自己变瘦的方法 <i>I am preoccupied with a desire to be thinner.</i>	1	2	3	4	5	6
12	当我在做运动时，我想燃烧能量（卡路里） <i>I think about burning up calories when I exercise.</i>	1	2	3	4	5	6
13	其他人认为我太瘦 <i>Other people think that I am too thin</i>	1	2	3	4	5	6
14	我觉得我身上有很多脂肪 <i>I am preoccupied with the thought of having fat on my body</i>	1	2	3	4	5	6

编号 No	项目 (Details)	(Scale)					
		1	2	3	4	5	6
15	我比别人需要更长的时间来进餐 <i>I take longer than others to eat my meals.</i>	1	2	3	4	5	6
16	我会避免吃有糖份的食物 <i>I avoid sugary food intake</i>	1	2	3	4	5	6
17	我会避免吃有糖份的食物 <i>I eat diet foods.</i>	1	2	3	4	5	6
18	我认为食物控制我的生活 <i>I feel that food controls my life.</i>	1	2	3	4	5	6
19	我能克制自己对的食物诱惑 <i>I display self-control around food</i>	1	2	3	4	5	6
20	我觉得别人强逼我吃食物 <i>I feel that others pressure me to eat.</i>	1	2	3	4	5	6
21	我花太多时间在想食物 <i>I give too much time and thought to food.</i>	1	2	3	4	5	6
22	吃糖果后，我觉得不舒服 <i>I give too much time and thought to food.</i>	1	2	3	4	5	6
23	我一直在减肥 <i>I engage in dieting behavior</i>	1	2	3	4	5	6
24	我喜欢我的肚子是空的 <i>I like my stomach to be empty.</i>	1	2	3	4	5	6
25	我喜欢尝试新的食物 <i>I have the impulse to vomit after meals.</i>	1	2	3	4	5	6
26	进食后，我有想吐的冲动 <i>I enjoy trying rich new foods.</i>	1	2	3	4	5	6

根据以下例子，请把您在昨天所摄取的食物列出并记录起来。

According to example below, please record ALL FOOD AND BEVERAGES you take YESTERDAY

例子：

EXAMPLE OF FOOD INTAKE

Meal	地点 Place	所摄取的食物或饮料 Type of food/beverages taken	分量 Quantity
早餐 Breakfast	餐馆/茶室 Stall	- 椰浆饭 nasi lemak	- 份 1 cup
		<ul style="list-style-type: none"> • 水煮蛋 Boiled Egg • 叁峇江鱼仔 Anchovies gravy • Kacang tanah Ground nut • 黄瓜 Cucumber 	<ul style="list-style-type: none"> - 半粒 Half - ¼份 (杯) ¼ cup - ¼份 (杯) ¼ cup - 2小片 2 small
		- 罐装饮料 (冰柠檬茶) Can drinks (iced lemon tea)	1 can

No. Rujukan: _____

日期:

Date:

第 1 / 2 天

Day: First/ Second

<i>Meal</i>	地点 <i>Place</i>	所摄取的食物或饮料 <i>Type of food/beverages taken</i>	分量 <i>Quantity</i>

谢谢

Thank you



**JAWATANKUASA ETIKA UNIVERSITI UNTUK
PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG,
SELANGOR, MALAYSIA**

FORM B2: RESPONDENT'S INFORMATION SHEET AND GUARDIAN'S/PARENT'S CONSENT

Please read the following information carefully. Do not hesitate to discuss any questions you may have with the researcher.

- 1. STUDY TITLE:** Comparison of Dietary Practices between Overweight and Normal-weight Children in Puchong, Selangor.

2. INTRODUCTION:

This study will compare the dietary practises between overweight and normal-weight children in Puchong, Selangor. All the related information gathered will be able to determine the comparison of dietary practises between overweight and normal-weight children in the selected primary school.

3. WHAT WILL YOU HAVE TO DO?

You children will be required to complete a set questionnaire which includes information regarding socio-demographic characteristics and dietary practises and interviewed regarding food intake. Your children body weight and height will be measured and recorded to calculate your BMI.

4. WHO SHOULD NOT PARTICIPATE IN THE STUDY?

Children aged below 10 or above 11 should not participate in the study. Additionally, children with mentally disability or chronic disease and under medication affect body weight. Children who absent on the data collection day cannot be participant in the study as well.

5. WHAT WILL BE THE BENEFITS OF THE STUDY:

- (a) TO YOUR CHILD AS THE SUBJECT?**

9. GUARDIAN'S/PARENT'S CONSENT

I Identity Card No.
address.....

.....hereby voluntarily agree to allow my *son / daughter /
ward..... to take part in the research by using questionnaire as
stated above.

I have been informed about the nature of the research in terms of methodology, possible adverse effects
and complications (as written in the Respondent's Information Sheet). I understand that my *son /
daughter / ward has the right to withdraw from this research at any time without giving any reason
whatsoever. I also understand that this study is confidential and all information provided with regard to the
identity of my* son / daughter / ward will remain private and confidential.

I* wish / do not wish to know the results related to my my *son's / daughter's / ward's participation in the
research

* delete where necessary

Signature Signature
(Parent/Guardian) (Witness)

Date : Name :
I/C No. :

I confirm that I have explained to the respondent's parent/guardian the nature and purpose of the above-
mentioned research.

Date Signature
(Researcher)



**JAWATANKUASA ETIKA UNIVERSITI UNTUK
PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG,
SELANGOR, MALAYSIA**

FORM B1: RESPONDENT'S INFORMATION SHEET AND CONSENT

Please read the following information carefully and do not hesitate to discuss any questions you may have with the researcher.

1. STUDY TITLE : Comparison of Dietary Practices between Overweight and Normal-weight Children in Puchong, Selangor.

2. INTRODUCTION:

This study will compare the dietary practises between overweight and normal-weight children in Puchong, Selangor. All the related information gathered will be able to determine the comparison of dietary practises between overweight and normal-weight children in the selected primary school.

3. WHAT WILL YOU HAVE TO DO?

You will be required to complete a set questionnaire which includes information regarding socio-demographic characteristics and dietary practises and interviewed regarding food intake. Your body weight and height will be measured and recorded to calculate your BMI.

4. WHO SHOULD NOT PARTICIPATE IN THE STUDY?

Children aged below 10 or above 11 should not participate in the study. Additionally, children with mentally disability or chronic disease and under medication affect body weight. Children who absent on the data collection day cannot be participant in the study as well.

5. WHAT WILL BE THE BENEFITS OF THE STUDY:

(a) TO YOU AS THE SUBJECT?

You will know your body weight status after participation. Therefore, you can modify your dietary and lifestyle practices to improve your body weight status or maintain a healthy lifestyles.

9. CONSENT

I Identity Card No.
 address.....
hereby voluntarily agree to take part in the research stated
 above *(clinical /drug trial/video recording/ focus group/interview-based/ questionnaire-based).

I have been informed about the nature of the research in terms of methodology, possible adverse effects and complications (as written in the Respondent's Information Sheet). I understand that I have the right to withdraw from this research at any time without giving any reason whatsoever. I also understand that this study is confidential and all information provided with regard to my identity will remain private and confidential.

I* wish / do not wish to know the results related to my participation in the research

I agree/do not agree that the images/photos/video recordings/voice recordings related to me be used in any form of publication or presentation (if applicable)

* delete where necessary

Signature Signature
 (Respondent) (Witness)

Date : Name :
 I/C No. :

I confirm that I have explained to the respondent the nature and purpose of the above-mentioned research.

Date Signature
 (Researcher)

SCHOOL LIST IN SELANGOR

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB.A0001	SK KILANG	JALAN DATO' HAMZAH	KILANG	41000	Bandar	0333712957	0333712957	335	331	666
SELANGOR	BB.A0002	SK TELOK GADONG	JALAN YADI	KILANG	41250	Bandar	0333713193	0333713193	724	660	1384
SELANGOR	BB.A0003	SK PELABUHAN KELANG	JALAN SEKOLAH,	PELABUHAN KELANG	42000	Bandar	0331686848	0331686848	429	385	814
SELANGOR	BB.A0004	SK TELOK MENEGON	BATU 3, JALAN KOTA RAJA	BANDAR	41000	Bandar	0333713852	0333713852	715	665	1380
SELANGOR	BB.A0005	SK BUKIT NAGA	BATU 6, KG. BUKIT NAGA	SHAH ALAM	40460	Bandar	0351616852	0351616852	805	794	1599
SELANGOR	BB.A0006	SK JALAN KEBUN	BATU 7 1/2, JALAN KEBUN	KILANG	42450	Bandar	0351611993	0351615004	1008	974	1982
SELANGOR	BB.A0007	SK BATU BELAH	JALAN RANTAU PANIANG	KILANG	42100	Bandar	0332911582	0332911512	1575	1448	3023
SELANGOR	BB.A0008	SK RANTAU PANIANG	JALAN GENTING, RANTAU PANIANG	KILANG	42100	Luar Bandar	0332911308	0332911308	974	904	1878
SELANGOR	BB.A0009	SK SEMENTA	BATU 6, JALAN KAPAR	KAPAR	42200	Luar Bandar	0332508835	0332508835	452	443	895
SELANGOR	BB.A0010	SK KAPAR	42200 KAPAR, SELANGOR	KAPAR	42200	Luar Bandar	0333922087	0333250835	1063	991	2054
SELANGOR	BB.A0011	SK BUKIT KAPAR	JALAN SETIA JAYA, KG BUKIT KAPAR	KAPAR	41050	Bandar	0333921048	0333921048	1732	1685	3367
SELANGOR	BB.A0012	SK SUNGAI BINJAI	BATU 6, PEKAN MERU	KILANG	42920	Bandar	60331012139	0331012144	684	657	1341
SELANGOR	BB.A0013	SK PUJAU INDAH	JALAN DATO' HARUN, PUJAU INDAH	PELABUHAN KELANG	42920	Luar Bandar	0332500895	0332500895	272	267	539
SELANGOR	BB.A0014	SK TOK MUDA	JLN KG TOK MUDA	KAPAR	41300	Bandar	0333416115	0333416115	327	132	459
SELANGOR	BB.A0015	SK BUKIT KUDA	JALAN LANDASAN	KILANG	41300	Bandar	0331685810	0331685810	425	376	801
SELANGOR	BB.A0016	SK KG RAJA UDA	JALAN KENANGA, 'KG RAJA UDA	PELABUHAN KELANG	42000	Bandar	0331673389	0331673389	555	510	1065
SELANGOR	BB.A0017	SK PANDAMARAN JAYA	JALAN 12, PANDAMARAN JAYA	PELABUHAN KELANG	42000	Bandar	0351610625	0351610625	670	592	1262
SELANGOR	BB.A0018	SK KG JOHAN SETIA	JALAN 13 1/2, JALAN KAPAR	KILANG	41200	Luar Bandar	0332500545	0332500545	276	280	556
SELANGOR	BB.A0019	SK SUNGAI SERDANG	JALAN 12, PANDAMARAN JAYA	KILANG	42450	Luar Bandar	0333631323	TIADA	68	77	145
SELANGOR	BB.A0020	SK (ASLI) BUKIT KEMANDOL	BT 13 1/2, JALAN KAPAR	KILANG	42200	Luar Bandar	0331688517	0331688517	383	383	766
SELANGOR	BB.A0021	SK KG PENDAMAR	KAMPUNG PENDAMAR	KILANG	41200	Bandar	0331341231	0331341231	619	563	1182
SELANGOR	BB.A0022	SK TELOK GONG	KG NELAVAN, TELOK GONG	KILANG	41200	Bandar	0333237837	0333237837	662	612	1274
SELANGOR	BB.A0023	SK TAMAN KILANG JAYA	JALAN SERULING 56, OFF JALAN LANGAT	KILANG	40400	Bandar	0351212944	0351212944	486	387	873
SELANGOR	BB.A0024	SK TAMAN SRI MUDA	25/20 JALAN NYAMAN	SHAH ALAM	41100	Bandar	0333720516	0333743043	776	614	1390
SELANGOR	BB.A0025	SK TELOK PULAI	TAMAN BERTEK	KILANG	41250	Bandar	0333715071	0333715071	932	970	1902
SELANGOR	BB.A0026	SK SUNGAI UDANG	JALAN YADI	KILANG	42000	Bandar	0331765366	0331766197	828	747	1575
SELANGOR	BB.A0028	SK PELABUHAN UTARA	BANDAR BARU SULTAN SULEIMAN	PELABUHAN KELANG	42200	Luar Bandar	0332509263	0332509263	412	409	821
SELANGOR	BB.A0029	SK ABDUL SAMAT	PERSIARAN HAMZAH ALANG	KAPAR	42200	Luar Bandar	0333923910	0333923910	783	763	1546
SELANGOR	BB.A0030	SK MERU	BATU 11, JALAN KAPAR	KAPAR	42200	Luar Bandar	0331681569	0331650350	629	547	1176
SELANGOR	BB.A0031	SK KAMPUNG IDAMAN	JALAN IDAMAN 17,	PELABUHAN KELANG	42000	Bandar	0332918212	0332918212	488	473	961
SELANGOR	BB.A0032	SK TAMAN KILANG UTAMA	JALAN HAJI SIRAT	KILANG	41000	Bandar	0333727371	0333727371	567	516	1083
SELANGOR	BB.A0033	SK KAMPUNG JAWA	JALAN KOTA RAJA, KAMPUNG JAWA	KILANG	41000	Bandar	0333721713	0333726148	1001	871	1872
SELANGOR	BB.A0034	SK TAMAN SRI ANDALAS	JALAN TUN DR. ISMAIL, OFF JALAN LANGAT	KILANG	41200	Bandar	0333729943	0333710324	212	213	425
SELANGOR	BB.A0035	SK TAMAN GEMBIRA	JALAN HILIR DUA, TELOK GADONG	KILANG	41100	Bandar	0333240137	0333240137	657	564	1221
SELANGOR	BB.A0036	SK BUKIT TINGGI	BANDAR BUKIT TINGGI	KILANG	41200	Luar Bandar	0351227124	0351219914	665	614	1279
SELANGOR	BB.A0037	SK BUKIT KEMUNING 2	LOT NO 4, JALAN ANGGERIK DORITIS 31/143	SHAH ALAM	40460	Bandar	0333931598	0333927951	578	598	1176
SELANGOR	BB.A0038	SK MERU (2)	JALAN PAIP, PEKAN MERU	KILANG	41050	Luar Bandar	0332902324	0332904355	566	525	1091
SELANGOR	BB.A0039	SK SUNGAI KAPAR INDAH	JLN SUNGAI KAPAR INDAH 6, TMI SUNGAI KAPAR INDAH	KAPAR	42200	Luar Bandar	0351216436	0351210657	334	312	646
SELANGOR	BB.A0040	SK BUKIT KEMUNING	JALAN ANGGERIK ARANDA 31/8, KOTA KEMUNING	SHAH ALAM	40460	Luar Bandar	0333753391	0333713435	599	530	1129
SELANGOR	BB.A0041	SK KAMPUNG JAWA 2	JALAN KOTA RAJA	KILANG	41000	Bandar	0331014070	0331014070	263	242	505
SELANGOR	BB.A0042	SK PULAU INDAH (2)	BANDAR ARMADA PUTRA, PULAU INDAH	PELABUHAN KELANG	42000	Luar Bandar	0351224148	0351224148	771	758	1529
SELANGOR	BB.A0043	SK BUKIT RIMAU	11 PERSIARAN SUNGAI SELANGOR, SEKSYEN 32	SHAH ALAM	40460	Bandar	0332639063	0333263064	687	590	1277
SELANGOR	BB.A0044	SK BATU UNJUR	JALAN BATU NILAM 1/KS 6	KILANG	41200	Luar Bandar	0331202514	0331202514	354	282	636
SELANGOR	BB.A0045	SK SUNGAI BUAYA	KAMPUNG SUNGAI BUAYA	BANTING	42700	Luar Bandar	0331202645	0331202645	165	158	323
SELANGOR	BB.A0046	SK BANDAR	JALAN ISTANA, KAMPUNG BANDAR	BANTING	42700	Luar Bandar	0331875481	0331875481	214	226	440
SELANGOR	BB.A0047	SK SUNGAI MANGGIS	KAMPUNG SUNGAI MANGGIS	BANTING	42700	Luar Bandar	0331491191	0331491191	285	313	795
SELANGOR	BB.A0048	SK OLAK LEMPIP	KG. LABOHAN DAGANG	BANTING	42700	Luar Bandar	0331491141	0331491141	535	534	1069
SELANGOR	BB.A0049	SK LABOHAN DAGANG	KG. BUKIT CHANGGANG, BANTING, KUALA LANGAT	BANTING	42700	Luar Bandar	0331914336	0331914336	540	535	1075
SELANGOR	BB.A0050	SK BKT CHANGGANG	JALAN SEKOLAH	JENIAROM	42600	Luar Bandar	0331228453	0331228453	624	543	1167
SELANGOR	BB.A0051	SK LABOHAN DAGANG	KG. BUKIT CHANGGANG, BANTING, KUALA LANGAT	BANTING	42700	Luar Bandar	0331228415	0331228415	837	823	1660
SELANGOR	BB.A0052	SK BUKIT CHANGGANG	JALAN SEKOLAH	JENIAROM	42600	Luar Bandar	0331227680	0331227680	741	671	1418
SELANGOR	BB.A0053	SK TELOK PANGLIMA GARANG	TELOK PANGLIMA GARANG	TELOK PANGLIMA GARANG	42500	Luar Bandar	0331850423	TIADA	90	92	182
SELANGOR	BB.A0054	SK KAMPUNG KEBUN BAHARU	KAMPUNG KEBUN BAHARU	TELOK PANGLIMA GARANG	42500	Luar Bandar					
SELANGOR	BB.A0055	SK SUJANGKANG	KG SUJANGKANG	TLK PGLMA GARANG	42500	Luar Bandar					
SELANGOR	BB.A0056	SK SG BUMBUN (A)	PULAU CAREY	KUALA LANGAT	42960	Luar Bandar					

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB1013	SK SUNGAI JUDAH	KAMPUNG SUNGAI JUDAH	PULAU CAREY	42960	Luar Bandar	0331032758	TIADA	70	58	128
SELANGOR	BB1014	SK BUKIT TADOM	SK BUKIT TADOM	BANTING	42700	Luar Bandar	0331491128	0331491128	52	45	97
SELANGOR	BB1015	SK SERI CHEDING	KG. SERI CHEDING	BANTING	42700	Luar Bandar	0331911413	0331911413	167	160	327
SELANGOR	BB1016	SK (ASLI) BKT CHEDING	SK BUKIT CHEDING	BANTING	42700	Luar Bandar	0331916158	0331916158	81	79	160
SELANGOR	BB1024	SK BATU LAUT	JALAN SEKOLAH KG TANJUNG SEPAT	TANJUNG SEPAT	42800	Luar Bandar	0331975839	0331975297	350	299	649
SELANGOR	BB1025	SK KAMPONG ENDAH	TANJUNG SEPAT	TANJUNG SEPAT	42800	Luar Bandar	0331481066	0331481276	215	230	445
SELANGOR	BB1026	SK MORIB	KAMPONG ENDAH	BANTING	42700	Luar Bandar	0331982394	0331982930	178	151	329
SELANGOR	BB1027	SK KANCHONG DARAT	JALAN BESAR, KANCHONG DARAT	BANTING	42700	Luar Bandar	0331871424	0331875054	656	527	1183
SELANGOR	BB1028	SK SG LANG	SUNGAI LANG	BANTING	42700	Luar Bandar	0331802322	0331802322	256	246	502
SELANGOR	BB1029	SK SERI LAMANG	KG. KELANG	BANTING	42700	Luar Bandar	0331201340	0331201340	192	202	394
SELANGOR	BB1030	SK PERMATANG PASIR	PERMATANG PASIR	BANTING	42700	Luar Bandar	0331203199	0331203199	102	80	182
SELANGOR	BB1031	SK SG KELAMBU	KG SUNGAI KELAMBU	BANTING	42700	Luar Bandar	0331816012	0331816012	131	149	280
SELANGOR	BB1032	SK KAMPUNG MEDAN	BATU 9 KAMPUNG MEDAN	BANTING	42500	Luar Bandar	0331228721	0331228721	434	437	871
SELANGOR	BB1033	SK JALAN TANJUNG	TELOK PANGULIMA GARANG	BANTING	42700	Luar Bandar	0331227984	0331227984	430	388	818
SELANGOR	BB1034	SK KANCHONG TENGAH	KG. KANCHONG TENGAH	BANTING	42700	Luar Bandar	0331812104	0331812104	95	73	168
SELANGOR	BB1035	SK SJUNGKANG JAYA	TELOK PANGULIMA GARANG	BANTING	42500	Luar Bandar	0331491651	0331491651	515	410	925
SELANGOR	BB1036	SK RTJ BUKIT CHANGGANG	RANCANGAN TANAH BELIA, BUKIT CHANGGANG,	BANTING	42700	Luar Bandar	0331851303	0331850475	431	412	843
SELANGOR	BB1037	SK JUGRA	LOT 1 SG RABA MUKIM JUGRA KUALA LANGAT	BANTING	42700	Bandar	0331876866	0331876866	383	433	816
SELANGOR	BB1038	SK BANDAR BANTING	PERSIARAN MAJLIS	BANTING	42700	Luar Bandar	0332893976	0332893976	380	407	787
SELANGOR	BB1001	SK ASSAM JAWA (INTEG)	KM 38.4, JALAN KLANG KUALA SELANGOR	BUKIT ROTAN	45600	Luar Bandar	0332791342	0332791342	479	511	990
SELANGOR	BB1002	SK BKT BADONG	BATU 3, KAMPUNG BUKIT BADONG	BESTARI JAYA	42200	Luar Bandar	0333927168	0333927168	245	225	470
SELANGOR	BB1003	SK BKT KERAYONG	JALAN SEKOLAH, KG. BUKIT KERAYONG 1,	KAPAR	45800	Luar Bandar	0332648530	0332648530	913	829	1742
SELANGOR	BB1004	SK DATO' MAHARAJA LELA	JALAN PARIT OMAR, KAMPUNG BUKIT CHERAKA	JERAM	45800	Luar Bandar	0332508446	0332508446	186	190	376
SELANGOR	BB1005	SK TAMBAK JAWA	KILOMETER 26, JERAM	JERAM	45800	Luar Bandar	0332647773	0332647773	201	186	387
SELANGOR	BB1006	SK JERAM	JALAN SIMPAING TIGA,	JERAM	45800	Luar Bandar	0332647320	0332647320	297	245	542
SELANGOR	BB1007	SK JERAM BT 20	BATU 20	JERAM	45600	Luar Bandar	0332716253	0332716253	148	162	310
SELANGOR	BB1008	SK JAYA SETIA	JALAN BESAR	BESTARI JAYA	45600	Luar Bandar	0332893476	0332893476	98	103	201
SELANGOR	BB1009	SK PASANGAN	JALAN RAWANG, KG. KUANTAN	BESTARI JAYA	45600	Luar Bandar	0332710330	0332710330	194	179	373
SELANGOR	BB1010	SK RANTAU PANJANG	KM. 34, JALAN RAWANG, RANTAU PANJANG	BESTARI JAYA	45600	Luar Bandar	0332791277	0332791277	255	259	514
SELANGOR	BB1011	SK UOK	BATU 7, UOK	BESTARI JAYA	45600	Bandar	0332891733	0332891733	152	128	280
SELANGOR	BB1012	SK TANJUNG KERAMAT	JALAN KERAMAT TANJUNG	KUALA SELANGOR	45000	Luar Bandar	0332896787	0332896787	146	161	307
SELANGOR	BB1013	SK BKT BELIMBING	JALAN RAJA MUSA, KG. BUKIT BELIMBING	KUALA SELANGOR	45000	Luar Bandar	0332898152	0332898152	205	209	414
SELANGOR	BB1014	SK KUALA SELANGOR	SIMPANG 4, KAMPONG PERMATANG	KUALA SELANGOR	45500	Bandar	0332695866	0332695866	295	265	560
SELANGOR	BB1015	SK TANJUNG KARANG	BATU 7	TANJUNG KARANG	45500	Luar Bandar	0332693381	0332693381	256	221	477
SELANGOR	BB1016	SK SUNGAI BURONG	BATU 12, JALAN BERNAM	TANJUNG KARANG	45500	Luar Bandar	0332691935	0332691935	199	180	379
SELANGOR	BB1017	SK SRI TIRAM	JALAN SETIANJUNG, KG. SERI TIRAM JAYA	TANJUNG KARANG	45500	Luar Bandar	0332698033	0332698033	348	283	631
SELANGOR	BB1018	SK DATO' MANAN (INTEG)	KAMPUNG SUNGAI TENGI KANAN	TANJUNG KARANG	45500	Luar Bandar	0332690300	0332690300	105	90	195
SELANGOR	BB1019	SK SERI GAMBUT	JALAN TERUSAN BESAR	TANJUNG KARANG	45500	Luar Bandar	0332691813	32691813	360	283	643
SELANGOR	BB1020	SK SUNGAI SIREH	JALAN PARIT 1 SUNGAI SIREH	TANJUNG KARANG	45500	Luar Bandar	0332415288	0332415288	180	194	374
SELANGOR	BB1021	SK PARIT EMPAT	BATU 14, JALAN BERNAM	SEKINCHAN	45400	Luar Bandar	0332600531		281	252	533
SELANGOR	BB1022	SK PARIT MAHANG	KAMPUNG PARIT MAHANG	JERAM	45800	Luar Bandar	0332896094	0332896094	115	106	221
SELANGOR	BB1023	SK RANTAU RAJA MUSA	BATU 8, JALAN RAJA MUSA	KUALA SELANGOR	45000	Luar Bandar	0332894626	0332894626	225	232	457
SELANGOR	BB1025	SK SUNGAI TERAP	BATU 4, JALAN BERNAM	TANJUNG KARANG	45500	Luar Bandar	0332691787	0332691787	125	123	248
SELANGOR	BB1026	SK PARIT SERONG	JALAN PARIT SERONG, KG. PARIT SERONG	TANJUNG KARANG	45500	Luar Bandar	0332601076	0332601076	179	167	346
SELANGOR	BB1028	SK SAWAH SEMPADAN	BLOK D, SAWAH SEMPADAN	TANJUNG KARANG	45400	Luar Bandar	0332412690	0332412690	218	193	411
SELANGOR	BB1029	SK BERJAYA	PARIT 3 BAN 3	SEKINCHAN	42200	Luar Bandar	0333926043	0333926043	109	121	230
SELANGOR	BB1030	SK BUKIT CERAKA	FELDA BUKIT CERAKA KAPAR	KUALA SELANGOR	45000	Bandar	0332894652	0332894652	571	549	1120
SELANGOR	BB1031	SK BANDAR BARU	JALAN MELUR	KUALA SELANGOR	45600	Luar Bandar	0332710346	0332710346	237	204	441
SELANGOR	BB1032	SK BESTARI JAYA	JALAN BESAR	BESTARI JAYA	45600	Luar Bandar	0333920079	0333920079	548	514	1062
SELANGOR	BB1033	SK PUNCAK ALAM	LRG. MAHKOTA IMPIAN 2/1 SEKSYEN 2	BUNDAI PUNCAK ALAM	42300	Luar Bandar	0360386018	0360386018	1719	1702	3421
SELANGOR	BB1034	SK SAUJANA UTAMA UOK	PERSIARAN SAUJANA 3, SAUJANA UTAMA	SUNGAI BULOH	47000	Luar Bandar	0333936961	0333936961	1183	1110	2293
SELANGOR	BB1035	SK PUNCAK ALAM 2	JALAN GUGUSAN ALAM 7/1, SEKSYEN 7	BDR PUNCAK ALAM	42300	Luar Bandar	0333936961	0333936961	1183	1110	2293
SELANGOR	BB1036	SK SERI PRISTANA	LOT 8214 JALAN SP2/1, SERI PRISTANA	SUNGAI BULOH	47000	Luar Bandar	0360391594	0360391594	457	454	911

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandariLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB4037	SK PUNCAK ALAM 3	LOT 7664, JALAN ASTANA 13/2	PUNCAK ALAM	42300	Luar Bandar	0126259259		395	366	761
SELANGOR	BB4401	SK SUNGAI SERAI	KM.16, JALAN HULU LANGAT	HULU LANGAT	43100	Luar Bandar	0390741377	0390741377	527	506	1033
SELANGOR	BB4402	SK JALAN ENAM	AMPANG	BANDAR BARU BANGI	43650	Bandar	0389256373	0389256373	767	712	1479
SELANGOR	BB4403	SK AMPANG CAMPURAN	JALAN IKAN JELAWAT.	AMPANG	68000	Bandar	0342921034	0342954897	698	620	1318
SELANGOR	BB4404	SK SERI SEKAMAT	BT 12 1/2, JLN CHERAS,	KAJANG	43000	Bandar	0387360579	0387342842	770	741	1511
SELANGOR	BB4405	SK BATU SEMBILAN	BATU 9, JALAN CHERAS	CHERAS	43200	Bandar	0390758542	0390749914	430	381	811
SELANGOR	BB4406	SK TUN ABD AZIZ MAJID	KM 22 JALAN AMPANG	HULU LANGAT	43100	Luar Bandar	0390212641	0390212641	659	644	1303
SELANGOR	BB4407	SK SG TEKAU	KM 27 JALAN HULU LANGAT	HULU LANGAT	43100	Luar Bandar	0390214678	0390214572	130	148	278
SELANGOR	BB4408	SK KUALA POMSON	BT 22 1/2	HULU LANGAT	43100	Luar Bandar	0390214678	0390214678	67	65	132
SELANGOR	BB4409	SK DUSUN TUA	BATU 16 3/4,	HULU LANGAT	43100	Luar Bandar	0390211367	0390211367	356	336	692
SELANGOR	BB4410	SK LUBOK KELUBI	BATU 19 JALAN HULU LANGAT	HULU LANGAT	43100	Luar Bandar	0390211367	0390212404	267	244	511
SELANGOR	BB4411	SK SUNGAI LUI	KM 33, KAMPUNG SUNGAI LUI	HULU LANGAT	43100	Luar Bandar	0390214327	0390214327	196	187	383
SELANGOR	BB4412	SK LEFTANAN ADNAN	KUNING RAMAL LUAR	KAJANG	43000	Bandar	0387333595	0387395207	555	533	1088
SELANGOR	BB4413	SK SUNGAI RAMAL DALAM	SG SUNGAI RAMAL DALAM	KAJANG	43000	Bandar	0389262932	0389262932	593	503	1096
SELANGOR	BB4414	SK TAMAN NIRWANA	JALAN NIRWANA 13 TAMAN NIRWANA	AMPANG	68000	Bandar	0392849270	0392812059	877	900	1777
SELANGOR	BB4415	SK KAJANG	JALAN LOW TI KOK 43000 KAJANG	KAJANG	43000	Luar Bandar	0387667226	0387667226	345	290	635
SELANGOR	BB4416	SK BERANANG	JALAN SEMENYIH	BERANANG	43700	Luar Bandar	0387730179	0387330179	300	331	631
SELANGOR	BB4417	SK KG KUALA PAJAM	KAMPUNG BATU 2, KUALA PAJAM	BERANANG	43000	Luar Bandar	0387660668	0387660668	71	80	151
SELANGOR	BB4418	SK BANGI	JALAN SEKOLAH	KAJANG	43000	Bandar	0389201515	0389201515	391	383	774
SELANGOR	BB4419	SK KG CHERAS BARU,	JALAN 34B, KG CHERAS BARU,	CHERAS	56100	Bandar	0342941801	0342941801	457	358	815
SELANGOR	BB4420	SK LEMBAH JAYA	SK LEMBAH JAYA, LEMBAH JAYA SELATAN,	AMPANG	68000	Bandar	0342916046	0342916056	622	581	1203
SELANGOR	BB4421	SK ULU SEMENYIH	KM 40, JALAN SG. LALANG,	SEMENYIH	43500	Luar Bandar	0387233233	0387233233	379	314	693
SELANGOR	BB4422	SK KG RINCHING	KAMPUNG RINCHING	BERANANG	43700	Luar Bandar	0387234597	0387234597	194	169	363
SELANGOR	BB4423	SK RINCHING HILIR	KG RINCHING HILIR, BANGI	BERANANG	43000	Bandar	0389202975	0389202975	319	275	594
SELANGOR	BB4424	SK AMPANG	JALAN MERBAU, KG MELAYU AMPANG	AMPANG	68000	Bandar	0342564342	0342564342	757	659	1416
SELANGOR	BB4425	SK BANDAR BARU BANGI	JALAN 2/1, SEKSYEN 2,	BANDAR BARU BANGI	43650	Bandar	0389250033	0389250033	752	746	1498
SELANGOR	BB4426	SK TAMAN TASEK	TAMAN TASEK TAMBAHAN	AMPANG	68000	Bandar	0342919397	0342919397	788	782	1570
SELANGOR	BB4427	SK SUNGAI KANTAN	JALAN PADANG TEMBAK, SUNGAI KANTAN	KAJANG	43000	Bandar	0387368646	0387368646	403	327	730
SELANGOR	BB4428	SK TAMAN MUDA	TAMAN MUDA AMPANG	KUALA LUMPUR	56100	Bandar	0342921354	0342921354	629	568	1197
SELANGOR	BB4429	SK TAMAN CUEPACS	BATU 9, CHERAS	CHERAS	43200	Bandar	0390742131	0390742131	434	360	794
SELANGOR	BB4430	SK TAMAN KOSAS	JALAN KOSAS 3/9, TAMAN KOSAS	AMPANG	68000	Bandar	0342934089	0342934089	860	787	1647
SELANGOR	BB4431	SK TAMING JAYA	TAMAN TAMING JAYA	SEKSI KEMANGAN	43300	Bandar	0389614553	0389614013	1187	1134	2321
SELANGOR	BB4432	SK JALAN 3	JALAN 3/4, SEKSYEN 3	BANDAR BARU BANGI	43650	Bandar	0389254875	0389254875	1032	900	1932
SELANGOR	BB4433	SK PANDAN INDAH	JALAN PANDAN LIMU PANDAN INDAH	KUALA LUMPUR	55100	Bandar	0342953735	0342953885	839	785	1624
SELANGOR	BB4434	SK BANDAR TUN HUSSEIN ONN	JALAN SUASANA, BANDAR TUN HUSSEIN ONN	CHERAS	43200	Bandar	0390763548	0390804800	1080	1022	2102
SELANGOR	BB4435	SK PANDAN JAYA	CHERAS	KUALA LUMPUR	55100	Bandar	0392838210	0392838019	384	336	720
SELANGOR	BB4436	SK SAUJANA IMPIAN	KM 22, JALAN CHERAS	KAJANG	43000	Bandar	0387343931	0387343931	604	533	1137
SELANGOR	BB4437	SK KAJANG UTAMA	JALAN BESAR, TAMAN KAJANG UTAMA	KAJANG	43000	Bandar	0387349678	0387349678	806	677	1483
SELANGOR	BB4438	SK TAMAN RAKAN	JALAN BANDAR SUNGAI LONG	KAJANG	43000	Bandar	038737186	038737186	752	799	1551
SELANGOR	BB4439	SK SRI JELOK	JLN 6 TMN SRI JELOK	KAJANG	43000	Bandar	0387376172	0387376172	464	469	933
SELANGOR	BB4440	SK CHERAS INDAH	JALAN MELATI 4, TAMAN MAJU JAYA, AMPANG,	KUALA LUMPUR	56100	Bandar	0392836300	0392836300	220	191	411
SELANGOR	BB4441	SK BUKIT RAYA	BT 10, JALAN HULU LANGAT	CHERAS	43200	Bandar	0390757527	0390757527	333	285	618
SELANGOR	BB4442	SK TASEK PERMAI	JALAN PERMAI 24A	AMPANG	68000	Bandar	0342949585	0342949585	200	212	412
SELANGOR	BB4443	SK DESA BAIDURI	PERSIARAN BAIDURI, TAMAN DESA BAIDURI	KAJANG	43000	Bandar	0387399142	0387399142	904	717	1621
SELANGOR	BB4444	SK TAMAN JASMIN	JALAN JASMIN 2, TAMAN JASMIN	KAJANG	43650	Bandar	0389256971	0389256975	1065	1054	2119
SELANGOR	BB4445	SK JALAN EMPAT	JALAN 4/8, BANDAR BARU BANGI	BANDAR BARU BANGI	43000	Bandar	0387391871	0387391871	745	794	1539
SELANGOR	BB4446	SK KANTAN PERMAI	PERSIARAN TKP, TAMAN KANTAN PERMAI	KAJANG	43650	Bandar	0389222707	0389222717	1236	1198	2434
SELANGOR	BB4447	SK SEKSYEN 7	JALAN 7/3, SEKSYEN 7,	BANDAR BARU BANGI	43650	Bandar	0392821446	0392821439	184	173	357
SELANGOR	BB4448	SK PANDAN PERDANA	JALAN PERDANA 3/1 PANDAN PERDANA	KUALA LUMPUR	55300	Bandar	0387339008	0387349017	552	499	1051
SELANGOR	BB4449	SK SAUJANA IMPIAN (2)	PERSIARAN IMPIAN PERDANA, SAUJANA IMPIAN	KAJANG	43000	Bandar	0390754929	0390743237	686	643	1329
SELANGOR	BB4450	SK CHERAS JAYA	JALAN CI 15, TAMAN CHERAS JAYA, BALAKONG,	CHERAS	43200	Bandar	0387668281	0387660763	1171	1078	2249
SELANGOR	BB4451	SK BANDAR TASEK KESUMA	JALAN KESUMA 7/1, BANDAR TASEK KESUMA	BERANANG	43700	Luar Bandar	0387247725	0387246712	1073	973	2046
SELANGOR	BB4452	SK BANDAR RINCHING	JALAN 1/1, BANDAR RINCHING	SEMENYIH	43500	Luar Bandar	0387248380	0387248907	679	689	1368
SELANGOR	BB4453	SK BANDAR TEKNOLOGI	JALAN 3/2, SEKSYEN 3, BANDAR TEKNOLOGI KAJANG	SEMENYIH	43650	Luar Bandar					

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BBA4054	SK DUSUN NANDING	KM 17, JALAN HULU LANGAT	HULU LANGAT	43100	Luar Bandar	0390765243	0390755143	343	332	675
SELANGOR	BBA4055	SK BANDAR TUN HUSSEIN ONN 2	JALAN SUADAMA, BANDAR TUN HUSSEIN ONN	CHERAS	43200	Bandar	0390757952	0390756952	1112	1066	2178
SELANGOR	BBA4056	SK TAMAN BUKIT TERATAI	TAMAN BUKIT TERATAI	AMPANG	56100	Bandar	0342974067	0342973894	363	345	708
SELANGOR	BBA4057	SK TAMAN PUTERI	BATU 9, JALAN HULU LANGAT	CHERAS	43200	Bandar	0390763914	0390763914	183	182	365
SELANGOR	BBA4058	SK BANDAR SERI PUTRA	JALAN SERI PUTRA 3	KAJANG	43000	Bandar	0389259717	0389259854	1293	1250	2545
SELANGOR	BBA5002	SK BATANG KALI	JALAN ULU YAM BHARU	BATANG KALI	44300	Luar Bandar	0360572157	0360572157	506	439	945
SELANGOR	BBA5003	SK RASA	KAMPUNG SEKOLAH	RASA	44200	Bandar	0360918661	0360918661	284	274	558
SELANGOR	BBA5004	SK SG CHOH	KAMPUNG SUNGAI CHOH	RAWANG	48000	Bandar	054543358	054543358	124	120	244
SELANGOR	BBA5005	SK SG SELISEK	KAMPUNG SUNGAI SELISEK	KUALA KUBU BHARU	44020	Luar Bandar	0360752978	0360752979	484	471	955
SELANGOR	BBA5006	SK ULU YAM BHARU	JALAN ULU YAM BATANG KALI	BATANG KALI	44300	Luar Bandar	0360752117	0360752117	48	56	104
SELANGOR	BBA5007	SK ULU YAM LAMA	KG ULU YAM LAMA	TG. MALIM	35900	Luar Bandar	054596787	054596787	314	262	576
SELANGOR	BBA5008	SK HULU BERNAM	KAMPUNG BARU 'B', HULU BERNAM, HULU SELANGOR	KUALA KUBU BHARU	44000	Bandar	0360641482	0360641482	150	112	262
SELANGOR	BBA5010	SK KERLING	KAMPUNG KERLING	KERLING	44100	Bandar	0360482032	0360482032	106	114	220
SELANGOR	BBA5011	SK KALUMPANG	KAMPUNG KALUMPANG	BATANG KALI	44300	Luar Bandar	0360491866	0360491866	372	318	690
SELANGOR	BBA5012	SK KG KUANTAN	KAMPUNG KUANTAN	BATANG KALI	44300	Luar Bandar	60360571848	60360571848	106	95	201
SELANGOR	BBA5013	SK GEDANGSA	FELDA GEDANGSA	KUALA KUBU BHARU	44020	Luar Bandar	0360463616	0360463616	179	152	331
SELANGOR	BBA5014	SK SUNGAI BUAYA	KG SUNGAI BUAYA, SELANGOR	RAWANG	48010	Luar Bandar	0360282010	0360282010	217	212	429
SELANGOR	BBA5015	SK KAMPUNG SOEHARTO	KG SOEHARTO	KUALA KUBU BHARU	44010	Luar Bandar	0360463424	0360463424	220	216	436
SELANGOR	BBA5016	SK TUN ABDUL RAZAK	JALAN PADANG GOLF	KUALA KUBU BHARU,	44000	Luar Bandar	0360641776	0360641776	89	97	186
SELANGOR	BBA5018	SK GESIR TENGAH	KG GESIR TENGAH	KUALA KUBU BHARU	44020	Luar Bandar	054543326	054543326	109	93	202
SELANGOR	BBA5020	SK SG TENGI	DESA MAJU SG TENGI	KUALA KUBU BHARU	44010	Luar Bandar	0360421060	0360421060	186	202	388
SELANGOR	BBA5021	SK SRI KELEDANG	SKC BERNAM, HULU SELANGOR	SLIM RIVER	35800	Luar Bandar	054527424	054527424	56	70	126
SELANGOR	BBA5022	SK SERENDAH	KAMPUNG SRI SERENDAH,	SERENDAH	48200	Bandar	0360812889	0360812889	777	691	1468
SELANGOR	BBA5023	SK BUKIT BERUNTUNG	JALAN MELATI BUKIT BERUNTUNG	RAWANG	48300	Luar Bandar	0360284424	0360284425	759	724	1483
SELANGOR	BBA5024	SK AMPANG PECAH	LOT 1817, JALAN HAMZAH,	RAWANG	44000	Bandar	0360654339	0360645439	302	246	548
SELANGOR	BBA5025	SK BANDAR BARU BATANG KALI	JALAN ULU YAM BHARU,	BATANG KALI	44300	Luar Bandar	0360573855	0360573513	887	841	1728
SELANGOR	BBA5026	SK BANDAR SUNGAI BUAYA	BANDAR SUNGAI BUAYA	RAWANG	48010	Luar Bandar	0360284358	0360284093	636	601	1237
SELANGOR	BBA5027	SK SERI FAJAR	FELDA SUNGAI TENGI SELATAN	KUALA KUBU BHARU	44010	Luar Bandar	0360422318	0360422318	80	63	143
SELANGOR	BBA5028	SK TAMAN BUNGA RAYA (1)	JLN BUNGA RAYA, TMN BUNGA RAYA, BKT. BERUNTUNG	RAWANG	48300	Luar Bandar	0360215067	0360215067	1036	920	1956
SELANGOR	BBA5029	SK LEMBAH BERINGIN	LEMBAH BERINGIN	KUALA KUBU BHARU	44100	Luar Bandar	0360471526	TIADA	47	76	123
SELANGOR	BBA5030	SK BUKIT SENTOSA	JALAN BUKIT SENTOSA 7, BUKIT SENTOSA,	RAWANG	48300	Luar Bandar	0360217829	0360217929	1214	1153	2367
SELANGOR	BBA5031	SK ANTARA GAPI	JALAN GAPI 1A, ANTARA GAPI	SERENDAH	48200	Luar Bandar	0360812855	0360812835	241	231	472
SELANGOR	BBA5032	SK BUKIT BERUNTUNG 2	LINGKARAN SEROJA, SEKSYEN BB7	RAWANG	48300	Bandar	0360211675	0360211679	552	512	1064
SELANGOR	BBA5033	SK TAMAN BUNGA RAYA 2	PERSIARAN BUNGA RAYA	RAWANG	48300	Luar Bandar	03		466	428	894
SELANGOR	BBA6001	SK SERI MAKMUR	JALAN PARIT 1 BARAT	SUNGAI BESAR	45300	Luar Bandar	6033224224	6033224224	706	648	1354
SELANGOR	BBA6002	SK SG HI DORANI	PEKAN SG HI DORANI	SUNGAI BESAR	45300	Luar Bandar	60332243967	60332243967	179	233	412
SELANGOR	BBA6003	SK SIMPANG LIMA	SIMPANG LIMA	SUNGAI BESAR	45300	Luar Bandar	0332243342	0332241249	326	302	628
SELANGOR	BBA6004	SK PANCHANG PEDENA	JALAN LAMA KUALA SELANGOR	SUNGAI BESAR	45300	Luar Bandar	0332241576	0332241576	124	122	246
SELANGOR	BBA6005	SK SG LIMAU	KAMPUNG SUNGAI LIMAU	SUNGAI BESAR	45300	Luar Bandar	0332243370	033243320	231	214	445
SELANGOR	BBA6006	SK PARIT 4	PARIT 4, JALAN PEKAN SELASA, SUNGAI HAJI DORANI,	SUNGAI BESAR	45300	Luar Bandar	0332246206	033246206	103	113	216
SELANGOR	BBA6007	SK PARIT 6	PARIT 6 BARAT	SUNGAI BESAR	45300	Luar Bandar	0332243953	033243953	201	228	429
SELANGOR	BBA6008	SK SERI BAHAGIA	PARIT 9	SUNGAI BESAR	45300	Luar Bandar	60332242453	0332242453	191	191	382
SELANGOR	BBA6009	SK TOK KHALIFAH	JALAN SUNGAI PANJANG	SUNGAI BESAR	45300	Luar Bandar	0332162848	0332162848	168	149	317
SELANGOR	BBA6010	SK BAGAN TERAP	KAMPUNG BAGAN TERAP	SUNGAI BESAR	45300	Luar Bandar	0332165143	0332165143	143	151	294
SELANGOR	BBA6011	SK PARIT 13	JALAN PARIT 13 BAN 2 SUNGAI NIBONG	SUNGAI BESAR	45400	Luar Bandar	0332246916	0332246916	82	60	142
SELANGOR	BBA6012	SK LOBOK PUSING	JLN MASJID, KG LUBOK PUSING	SUNGAI BESAR	45300	Luar Bandar	0332164810	0332164810	43	38	81
SELANGOR	BBA6013	SK DOKTOR ABDUL LATIFF	JALAN RAJA CHULAN	SABAK BERNAM	45200	Bandar	0332161213	0332165244	285	321	606
SELANGOR	BBA6014	SK BATU 38	KAMPUNG BATU 38	SABAK BERNAM	45200	Luar Bandar	0332161219	0332161219	278	271	549
SELANGOR	BBA6015	SK KG BAHARU	JALAN HAJI SAIE KAMPUNG BAHARU	SABAK BERNAM	45200	Luar Bandar	0332162033	0332162033	44	61	105
SELANGOR	BBA6016	SK TUN DOKTOR ISMAIL	TEBUK PULAI,	SABAK BERNAM	45200	Luar Bandar	60332162379	60332162379	110	88	198
SELANGOR	BBA6017	SK SEKENDI	JALAN SEKENDI	SABAK BERNAM	45200	Luar Bandar	0332163468	0332163468	83	98	181
SELANGOR	BBA6018	SK SIMPANG 4 BNO	SIMPANG 4, BAGAN NAKHODA OMAR,	SABAK BERNAM	45200	Luar Bandar	0332136161	0332136161	106	115	221
SELANGOR	BBA6019	SK PARIT BAHARU	JALAN BESAR, KAMPUNG PARIT BAHARU	SUNGAI AIR TAWAR	45100	Luar Bandar	0332136971	0332136971	158	183	341

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BBAG020	SK SUNGAI TENGAR	KG SG TENGAR	SG AIR TAWAR	45100	Luar Bandar	0332138350	0332138350	98	84	182
SELANGOR	BBAG021	SK SERI MAWAR	JALAN SEKOLAH	SUNGAI AIR TAWAR	45100	Luar Bandar	60332138035	60332138035	146	141	287
SELANGOR	BBAG022	SK TEBOK JAWA	JALAN TEBOK JAWA, KG. TEBOK JAWA	SABAK BERNAM	45200	Luar Bandar	0332163144	0332163144	77	82	159
SELANGOR	BBAG023	SK SAPINTAS	BATU 4, KG SAPINTAS	SABAK BERNAM	45200	Luar Bandar	0332164648	0332164648	106	97	203
SELANGOR	BBAG024	SK KAMPONG BANTING	JLN MASJID KG BANTING	SABAK BERNAM	45200	Luar Bandar	0332162085	0332162085	109	86	195
SELANGOR	BBAG025	SK TANJONG JAWA	JALAN DUNGUN	SABAK BERNAM	45200	Luar Bandar	60332161482	TIADA	13	10	23
SELANGOR	BBAG026	SK TELUK RU	JALAN PARIT BARU	SABAK BERNAM	45200	Luar Bandar	0332138168	0332138168	61	53	114
SELANGOR	BBAG027	SK SERI CEMPAKA	SG APONG	SG AIR TAWAR	45100	Luar Bandar	0332137011	0332137011	50	55	105
SELANGOR	BBAG028	SK SG LEMAN	TALI AIR 7	SEKINCHAN	45400	Luar Bandar	0332412980	0332412980	286	240	526
SELANGOR	BBAG029	SK PASIR PANJANG	JALAN PARIT 9	SEKINCHAN	45400	Luar Bandar	0332412028	0332412028	143	159	302
SELANGOR	BBAG030	SK PASIR PANJANG	PASIR PANJANG	SEKINCHAN	45400	Luar Bandar	0332410582	0332410582	232	268	500
SELANGOR	BBAG031	SK SUNGAI NIBONG	JALAN PARIT 12	SEKINCHAN	45400	Luar Bandar	60332411189	60332411189	197	146	343
SELANGOR	BBAG032	SK BINJAI JAYA	PARIT 16 SUNGAI PANJANG	SUNGAI BESAR	45300	Luar Bandar	60332162208	60332162208	266	247	513
SELANGOR	BBAT101	SK SELAYANG BARU (2)	JALAN 42, SELAYANG BARU	BATU CAVES	68100	Bandar	0361386333	0361386333	599	552	1151
SELANGOR	BBAT102	SK (2) TAMAN SELAYANG	JALAN 42, SELAYANG BARU	BATU CAVES	68100	Bandar	0341078662	0341078662	416	392	808
SELANGOR	BBAT103	SK (2) TAMAN KERAMAT	JALAN HULU KELANG	KUALA LUMPUR	68000	Bandar	0341084646	0341078125	183	146	329
SELANGOR	BBAT201	SK HULU KELANG	JALAN HULU KELANG	KUALA LUMPUR	53100	Bandar	0361897851	0361896167	732	700	1432
SELANGOR	BBAT202	SK KLANG GATE	JALAN GENTING KLANG	KUALA LUMPUR	53100	Bandar	0361897851	0361893546	536	503	1039
SELANGOR	BBAT203	SK GOMBAK SETIA	GOMBAK SETIA	KUALA LUMPUR	53100	Bandar	0361893546	0361893546	935	906	1841
SELANGOR	BBAT204	SK GOMBAK UTARA	KM11, JALAN GOMBAK	BATU CAVES	68100	Bandar	0361897052	0361897052	248	197	445
SELANGOR	BBAT205	SK SG TUA BAHARU	JALAN MELATI, KG SG TUA BAHARU	BATU CAVES	68100	Bandar	0362756264	0362773045	227	167	394
SELANGOR	BBAT206	SK KEPONG	INSTITUT PENYELIDIKAN PERHUTANAN MALAYSIA (FRIM)	KUALA LUMPUR	52100	Bandar	0360918453	0360918453	248	197	445
SELANGOR	BBAT207	SK RAWANG	KM 28, JALAN KUANG	RAWANG	48000	Bandar	0360383780	0360383780	935	906	1841
SELANGOR	BBAT208	SK KUANG	KUANG	RAWANG	48050	Luar Bandar	0360383780	0360383780	935	906	1841
SELANGOR	BBAT209	SK SG SERAI	SG SERAI	RAWANG	48050	Luar Bandar	0360383780	0360383780	935	906	1841
SELANGOR	BBAT210	SK SG PELONG	SUNGAI PELONG	SUNGAI BULOH	47000	Luar Bandar	0360371259	0360371259	155	192	347
SELANGOR	BBAT211	SK TAMAN KERAMAT (1)	JALAN ENGGANG TIMUR 1	KUALA LUMPUR	54200	Luar Bandar	0360383576	0360383576	1099	1027	2126
SELANGOR	BBAT212	SK SG BUJUH	SUNGAI BULOH	SUNGAI BULOH	47000	Luar Bandar	0342561317	0342561317	335	331	666
SELANGOR	BBAT213	SK TAMAN EHSAN	JALAN 25, DESA JAYA	KUALA LUMPUR	52100	Bandar	0361561669	0361571926	653	590	1243
SELANGOR	BBAT214	SK TAMAN MELAWATI	JALAN F.13, TAMAN MELAWATI	KUALA LUMPUR	53100	Bandar	0341078763	0341055169	819	697	1516
SELANGOR	BBAT215	SK (1) TAMAN SELAYANG	JALAN SUNGAI TUA	BATU CAVES	68100	Bandar	0361898813	0361898813	568	490	1058
SELANGOR	BBAT216	SK TAMAN SERI GOMBAK	JALAN SG 1/1, TAMAN SERI GOMBAK	BATU CAVES	68100	Bandar	0361894886	0361894886	1096	1023	2119
SELANGOR	BBAT217	SK LEMBAH KERAMAT	JLN AU 5C/6, LEMBAH KERAMAT	BATU CAVES	68100	Bandar	0341082520	0341072521	677	614	1291
SELANGOR	BBAT219	SK SELAYANG JAYA	JALAN S124 TAMAN SELAYANG JAYA	BATU CAVES	68100	Bandar	0361385270	0361366937	384	325	709
SELANGOR	BBAT220	SK BANDAR BARU SELAYANG	BANDAR BARU SELAYANG	BATU CAVES	68100	Bandar	0361880307	0361880307	756	699	1455
SELANGOR	BBAT221	SK TAMAN SELASIH	TAMAN SELASIH FASA 2	BATU CAVES	68100	Bandar	0341072759	0341087275	398	320	718
SELANGOR	BBAT222	SK TAMAN PERMATA	TAMAN PERMATA 9, TAMAN PERMATA, HULU KELANG	KUALA LUMPUR	53100	Bandar	0341086619	0341062591	1050	1005	2055
SELANGOR	BBAT224	SK TAMAN MELAWATI 2	TAMAN MELAWATI	KUALA LUMPUR	53100	Bandar	0361364020	0361364020	403	305	708
SELANGOR	BBAT225	SK SELAYANG UTAMA	JALAN SUNGAI TUA	BATU CAVES	68100	Bandar	0361851767	0361888441	481	474	955
SELANGOR	BBAT226	SK SUNGAI KERATAS	JALAN SAMUDRA BARAT 4, TAMAN SAMUDRA	BATU CAVES	68100	Bandar	0361851767	0361888441	481	474	955
SELANGOR	BBAT227	SK TAMAN SAMUDRA	KM11, JALAN GOMBAK	BATU CAVES	68100	Bandar	0361851767	0361888441	481	474	955
SELANGOR	BBAT228	SK SUNGAI PUSU	JALAN AKIK, TAMAN SETIA	BATU CAVES	68100	Bandar	0361851767	0361888441	481	474	955
SELANGOR	BBAT229	SK TAMAN SETIA	JALAN AKIK, TAMAN SETIA	BATU CAVES	68100	Bandar	0361851767	0361888441	481	474	955
SELANGOR	BBAT230	SK TAMAN DESA	BANDAR COUNTRY HOMES	RAWANG	48000	Bandar	0360937562	0360937562	995	876	1871
SELANGOR	BBAT231	SK BUKIT RAWANG JAYA	JALAN BUKIT RAWANG, TAMAN BUKIT RAWANG	RAWANG	48000	Bandar	0360935044	0360935044	549	448	997
SELANGOR	BBAT232	SK TAMAN BUKIT INDAH	TAMAN BUKIT INDAH	AMPANG	68000	Bandar	0342808325	0342808325	909	878	1787
SELANGOR	BBAT233	SK BUKIT RAHMAN PUTRA	BUKIT RAHMAN PUTRA	RAWANG	48000	Bandar	0361562454	0361562187	740	672	1412
SELANGOR	BBAT234	SK SERI KUNDAING	KG MELAYU SERI KUNDAING	SUNGAI BULOH	48020	Luar Bandar	0360344816	0360344816	830	752	1582
SELANGOR	BBAT235	SK TAMAN SERI GOMBAK 2	JALAN SG 1/1 TAMAN SERI GOMBAK	BATU CAVES	68100	Bandar	0361858566	0361872544	954	841	1795
SELANGOR	BBAT236	SK TAMAN DESA 2	BANDAR COUNTRY HOMES	RAWANG	48000	Bandar	0360917918	0360917918	723	683	1406
SELANGOR	BBAT237	SK BANDAR BARU RAWANG	PERSIARAN PELANGI	RAWANG	48000	Luar Bandar	0360342978	0360344059	1315	1154	2469
SELANGOR	BBAT238	SK BANDAR TASIK PUTERI	BANDAR TASIK PUTERI	RAWANG	48000	Luar Bandar	0362804744	0362804744	280	258	538
SELANGOR	BBAT239	SK DESA AMANPURI	PERSIARAN PERDAMA, KEPONG	KUALA LUMPUR	52100	Luar Bandar	0361389329	0361389329	231	224	455
SELANGOR	BBAT240	SK TAMAN PRIMA SELAYANG	OFF JALAN MELATI 7, TAMAN SRI MELATI	BATU CAVES	68100	Bandar	0361389329	0361389329	231	224	455

Negeri	KodSekolah	NamaSekolah	AlamatokasiSekolah	Bandar/okasiSekolah	Postkod/okasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB47241	SK BANDAR BARU SELAYANG (2)	PERSIARAN 2, FASA 1C, BANDAR BARU SELAYANG	BATU CAVES	68100	Bandar	0361374800	0361379700	368	260	628
SELANGOR	BB47242	SK TASI K PUTERI	BANDAR TASI K PUTERI	RAWANG	48000	Luar Bandar	0360342595	0360342726	815	787	1602
SELANGOR	BB47243	SK TAMAN TUN TEJA	TAMAN TUN TEJA, BATU 16	RAWANG	46000	Bandar	TIADA	TIADA	841	817	1658
SELANGOR	BB48101	SK TAMAN DATO HARUN (2)	KM12, TAMAN DATO HARUN, JALAN KLANG LAMA	PETALING JAYA	46000	Bandar	0377815626	0377855626	492	460	952
SELANGOR	BB48102	SK KELANA JAYA (2)	JLN SS 22/48	PETALING JAYA	47301	Bandar	0378768258	0378768258	111	86	197
SELANGOR	BB48103	SK DAMANSARA JAYA (2)	JLN SS 19/6, SUBANG JAYA	PETALING JAYA	47400	Bandar	0377285420	0377285420	73	45	118
SELANGOR	BB48104	SK SS 19 SUBANG JAYA	JLN SS 19/6, SUBANG JAYA	SUBANG JAYA	47500	Bandar	0356335487	035637969	198	179	377
SELANGOR	BB48105	SK SEKSYEN 24	JALAN PETOLA 24/8 SEKSYEN 24	SHAH ALAM	40300	Bandar	0355418623	0355482017	697	627	1324
SELANGOR	BB48106	SK TAMAN MEGAH	JALAN SS 26/2	PETALING JAYA	47301	Bandar	0378034727	0378042823	531	481	1012
SELANGOR	BB48201	SK PETALING JAYA	LORONG MASJID I (3/69-1)	PETALING JAYA	46000	Bandar	0377828051	0377830051	427	239	666
SELANGOR	BB48202	SK SUBANG	JLN MERBAU KG. MELAYU SUBANG	SHAH ALAM	40150	Bandar	0378464845	0378474624	1270	1239	2509
SELANGOR	BB48203	SK PADANG JAWA	PADANG JAWA	SHAH ALAM	40200	Bandar	0380611885	0380611885	639	601	1240
SELANGOR	BB48204	SK PUCHONG	PELABAT POS PUCHONG	PUCHONG	47100	Bandar	0377102055	0377102066	72	81	153
SELANGOR	BB48205	SK SERDANG	JLN UTAMA, KOMPLEKS PERTANIAN SERDANG, U.P.M	PETALING JAYA	47820	Bandar	0360383050	0360383896	896	912	1810
SELANGOR	BB48206	SK BUKIT LANJAN	BANDAR DAMANSARA PERDANA	SUNGAI BULOH	47000	Luar Bandar	0377282080	0377279942	346	323	669
SELANGOR	BB48207	SK MERBAU SEMPAK	MERBAU SEMPAK	PETALING JAYA	47400	Bandar	0379568543	0379568543	125	118	243
SELANGOR	BB48208	SK DAMANSARA UTAMA	JALAN SS 21/50	PETALING JAYA	46400	Bandar	0377824690	0377829719	510	468	978
SELANGOR	BB48209	SK SRI DAMAI	JALAN17/13,SEKSYEN17	PETALING JAYA	46000	Bandar	0378752379	0378771067	228	217	445
SELANGOR	BB48210	SK TAMAN DATO HARUN (SATU)	KM. 12, JALAN KLANG LAMA,	PETALING JAYA	47301	Bandar	0378768604	0378770943	428	333	761
SELANGOR	BB48211	SK KELANA JAYA (1)	JLN. SS5/2, KELANA JAYA	PETALING JAYA	47500	Bandar	0355339234	0355339235	462	392	854
SELANGOR	BB48212	SK SUBANG JAYA	JLN SS 14/5	SHAH ALAM	40000	Bandar	0355195148	0355198726	823	679	1502
SELANGOR	BB48213	SK RAJA MUJDA (INTEG)	JLN SS 14/5	PETALING JAYA	47300	Bandar	0378744527	0378778528	150	136	286
SELANGOR	BB48214	SK TAMAN SEA	JALAN SS 2/95	PETALING JAYA	47400	Bandar	0377288770	0377288770	134	84	218
SELANGOR	BB48215	SK DAMANSARA JAYA (1)	JALAN S22/48 DAMANSARA JAYA	PETALING JAYA	47400	Bandar	0355101123	0355198480	319	314	633
SELANGOR	BB48216	SK SEKSYEN ENAM	JALAN BELIBIS 6/5 SEKSYEN 6	PETALING JAYA	47500	Bandar	0356336734	0356218500	225	200	425
SELANGOR	BB48217	SK SRI SUBANG JAYA	JALAN SS 14/8, SUBANG JAYA	PETALING JAYA	43300	Bandar	0389486413	0389486413	681	653	1334
SELANGOR	BB48218	SK SRI SERDANG	TAMAN SRI SERDANG	SERI KEMBANGAN	40200	Bandar	0355198380	0355483370	564	554	1118
SELANGOR	BB48219	SK SEKSYEN 17 SHAH ALAM	JALAN JELAWAT 17/1, SEKSYEN 17	SHAH ALAM	40200	Bandar	0377827833	0377827833	978	1029	2007
SELANGOR	BB48220	SK TAMAN MEDAN	KM. 12, JALAN KLANG LAMA	PETALING JAYA	46000	Bandar	0378768604	0378770943	428	333	761
SELANGOR	BB48221	SK SRI KELANA	JLN SS 5B/3 PETALING JAYA.	PETALING JAYA	47301	Bandar	0355415611	0355487361	665	593	1258
SELANGOR	BB48222	SK SEKSYEN 19	JALAN PETANI, 19/1	SHAH ALAM	40300	Bandar	0351915175	0351915175	655	641	1296
SELANGOR	BB48223	SK HICOM	JALAN KAJANG 27/10, SEKSYEN 27	SHAH ALAM	40400	Bandar	0355422512	0355422512	504	484	988
SELANGOR	BB48224	SK SEKSYEN 18	JALAN CUCUR 18/13 SHAH ALAM	SHAH ALAM	40200	Bandar	0355431675	0355431679	1047	880	1927
SELANGOR	BB48225	SK SEKSYEN 20	JALAN RAMA-RAMA 20/2	SHAH ALAM	40300	Bandar	0355422512	0355422512	504	484	988
SELANGOR	BB48226	SK BANDAR BARU SUNGAI BULOH	BANDAR BARU SUNGAI BULOH	SHAH ALAM	47610	Bandar	0380243660	0380230581	490	428	918
SELANGOR	BB48227	SK SEAFIELD	JALAN USI 6/3	SUBANG JAYA	43300	Luar Bandar	0361568482	0361568482	998	853	1851
SELANGOR	BB48228	SK TAMAN UNIVERSITI	JALAN INDAH 1, TAMAN UNIVERSITI INDAH	SERI KEMBANGAN	47100	Bandar	0389431575	0389431575	915	839	1754
SELANGOR	BB48229	SK PUCHONG JAYA	SK PUCHONG JAYA BANDAR PUCHONG JAYA JUN MERAK	PUCHONG	47170	Bandar	0380757734	0380757734	331	288	619
SELANGOR	BB48230	SK TAMAN ALAM MEGAH	PERSIARAN HULU LANGAT, SEKSYEN 28,	SHAH ALAM	40400	Bandar	0351910745	0351923295	519	516	1035
SELANGOR	BB48231	SK TAMAN SRI MUJDA 2	JALAN CERMAT 25/36, TAMAN SRI MUJDA	SHAH ALAM	40400	Bandar	0351218522	0351218523	541	576	1117
SELANGOR	BB48232	SK PERDANA JAYA SS19	JALAN SS 19/1	SUBANG JAYA	47500	Bandar	0356365106	0356214303	228	145	373
SELANGOR	BB48233	SK TUDM SUBANG	JALAN BENDAHARA, PANGKALAN UDARA SUBANG	SHAH ALAM	40150	Bandar	0378473160	0378472035	554	551	1105
SELANGOR	BB48234	SK BANDAR SUNWAY	JALAN PIS 7/15	PETALING JAYA	46150	Bandar	0356369260	0356357134	557	522	1079
SELANGOR	BB48235	SK PUCHONG PERDANA	JALAN PERDANA 4/2, TAMAN PUCHONG PERDANA	PUCHONG	47100	Bandar	0380618001	0380619550	1202	1156	2358
SELANGOR	BB48236	SK SEKSYEN 7 SG. BULOH.	SEKSYEN 7, KOTA DAMANSARA	PETALING JAYA	47810	Bandar	0361571273	0361576801	624	658	1282
SELANGOR	BB48237	SK SRI SELANGOR	JALAN USI 4/2, UEP SUBANG JAYA	SUBANG JAYA	47600	Bandar	0356319100	0356360240	584	580	1164
SELANGOR	BB48238	SK BANDAR ANGERIK	JALAN NURI 6/1, SEKSYEN 6	SHAH ALAM	40000	Bandar	0355125482	0355119015	414	413	827
SELANGOR	BB48239	SK BUKIT KUCHAI	JLN 17, TAMAN BUKIT KUCHAI	PUCHONG	47100	Bandar	0380763780	0380763780	315	290	605
SELANGOR	BB48240	SK TAMAN TUN DR ISMAIL JAYA	JALAN TUDM SUBANG	SHAH ALAM	40150	Bandar	0378469835	0378469712	698	678	1376
SELANGOR	BB48241	SK BANDAR BARU SRI DAMANSARA	PERSIARAN MAHOGANI	SHAH ALAM	40150	Bandar	0362744135	0362744135	192	202	394
SELANGOR	BB48242	SK ALAM MEGAH DUA	PERSIARAN KUALA LANGAT, SEKSYEN 27,	SHAH ALAM	40400	Bandar	0351916879	0351911671	499	493	992
SELANGOR	BB48243	SK SEAFIELD 3	PERSIARAN KEWAJIPAN USI 8/2A	SUBANG JAYA	47610	Bandar	0356387487	0356377437	525	476	1001
SELANGOR	BB48244	SK BANDAR UTAMA DAMANSARA	LEBUH BANDAR UTAMA, BANDAR UTAMA	PETALING JAYA	47800	Bandar	0377277526	0377277526	121	100	221
SELANGOR	BB48245	SK PENDIDIKAN KHAS SELANGOR	JLN PINANG RAJA 18/2 SEKSYEN 18	SHAH ALAM	40200	Bandar	0355420620	0355420621	54	47	101

Negeri	Kod Sekolah	Nama Sekolah	Alamat Lokasi Sekolah	Bandar Lokasi Sekolah	Poskod Lokasi Sekolah	Lokasi	No Telefon	No Fax	L	P	Enrolmen
SELANGOR	BBA8246	SK SEKSYEN 9, SHAH ALAM	JLN. TENGGU AMPUAN RAHIMAH 9/20	SHAH ALAM	40100	Bandar	0355129941	035512375	603	601	1204
SELANGOR	BBA8247	SK USJ 2	JALAN USJ 2/3	SUBANG JAYA	47600	Bandar	0356389741	0356389741	232	198	430
SELANGOR	BBA8248	SK BANDAR UTAMA DAMANSARA 2	NO. 2 PINTASAN BANDAR UTAMA, BANDAR UTAMA DAMANSA	PETALING JAYA	47800	Bandar	0377223126	0377223129	327	268	595
SELANGOR	BBA8249	SK PUCHONG UTAMA	JLN PU 12/1 TMIN PUCHONG UTAMA	PUCHONG	47100	Bandar	0380619240	0380682496	968	936	1904
SELANGOR	BBA8250	SK SEKSYEN 6 KOTA DAMANSARA	JALAN CECAWI 6/26	PETALING	47810	Bandar	0361566424	0361571325	829	811	1644
SELANGOR	BBA8251	SK USJ 20	JALAN USJ 20/6 UEP	SUBANG JAYA	47630	Bandar	0380231860	0380235542	525	511	1036
SELANGOR	BBA8252	SK USJ 12	JALAN USJ 12/1, UEP SUBANG JAYA	SUBANG JAYA	47630	Bandar	0356370081	0356370203	573	505	1078
SELANGOR	BBA8253	SK BANDAR BARU SRI DAMANSARA 2	JALAN CEMPAKA SD 12/2, BDR. SRI DAMANSARA	KUALA LUMPUR	52200	Bandar	0362720144	0362722539	399	347	746
SELANGOR	BBA8254	SK PUCHONG UTAMA 2	JALAN PU9/5 TAMAN PUCHONG UTAMA	PUCHONG	47100	Bandar	0380608849	0380684307	919	816	1735
SELANGOR	BBA8255	SK SEKSYEN 1 BANDAR KINRABA	JALAN BK 2/10, BANDAR KINRABA	PUCHONG	47100	Bandar	0380768176	0380768176	987	782	1769
SELANGOR	BBA8256	SK SEKSYEN 13	JALAN BOLA SEPAK 13/11, SEKSYEN 13,	SHAH ALAM	40100	Bandar	0355138272	0355138261	423	408	831
SELANGOR	BBA8257	SK PUCHONG INDAH	JALAN INDAH 2/1, PUCHONG INDAH	PUCHONG	47100	Bandar	0380682745	0380685603	1193	1063	2256
SELANGOR	BBA8258	SK PUSAT BANDAR PUCHONG (1)	JALAN WAWASAN 2/23 PUSAT BANDAR PUCHONG	PUCHONG	47160	Bandar	0358821094	0358821094	331	339	670
SELANGOR	BBA8259	SK BANDAR SRI DAMANSARA 3	JALAN ARA SD 7/3	PUCHONG	52200	Bandar	0362732902	0362732902	303	282	585
SELANGOR	BBA8260	SK BANDAR UTAMA DAMANSARA (4)	BANDAR UTAMA DAMANSARA (4)	KUALA LUMPUR	47800	Bandar	0377289930	0377289930	421	385	806
SELANGOR	BBA8261	SK ALAM MEGAH (3)	NO. 2, JALAN TELOK PANGULIMA GARANG 28/1	SHAH ALAM	40400	Bandar	03-51915090	03-51915087	586	525	1111
SELANGOR	BBA8262	SK SEKSYEN 2 BANDAR KINRABA	JLN BK 3/8 BANDAR KINRABA	PUCHONG	47180	Bandar	0380769376	0380769376	573	578	1151
SELANGOR	BBA8263	SK TROPICANA	JALAN TROPICANA SELATAN	PETALING JAYA	47410	Bandar	0378036421	0378036423	208	214	422
SELANGOR	BBA8264	SK BUKIT JELUTONG	JALAN NOVA U5/81, SUBANG BESTARI, BANDAR PINGGIRA	SHAH ALAM	40150	Bandar	0378459457	0378459458	1206	1197	2403
SELANGOR	BBA8265	SK BANDAR SRI DAMANSARA 1	NO. 6, JALAN SERAMBI U8/21, SEKSYEN U8	PUCHONG	52200	Bandar	0362740957	0362731471	632	557	1189
SELANGOR	BBA8266	SK DATO' ONN JAFAAR	SK BANDAR SRI DAMANSARA 1, PERSIARAN PERDANA, BAND	KUALA LUMPUR	47630	Bandar	0380242343	0380241760	379	343	722
SELANGOR	BBA8267	SK SEKSYEN 27(1)	KOMPLEKS SEKOLAH WAWASAN USJ 15	SUBANG JAYA	40000	Bandar	0351917614	0351917614	416	389	805
SELANGOR	BBA8268	SK SUBANG BESTARI	JALAN NOVA U5/81, SUBANG BESTARI, BANDAR PINGGIRA	SHAH ALAM	40150	Bandar	0378459401	0378459401	1573	1485	3058
SELANGOR	BBA8269	SK PUSAT BANDAR PUCHONG 2	JALAN PERSIARAN INDERA PUSAT BANDAR PUCHONG	PUCHONG	47160	Bandar	0358820711	0358820744	472	421	893
SELANGOR	BBA8270	SK SEKSYEN 9 KOTA DAMANSARA	JALAN RIMBA RIANG 9/1	PETALING JAYA	47830	Bandar	0361564683	0361572724	1379	1227	2606
SELANGOR	BBA8271	SK DAMANSARA DAMAI 1	NO.2 JALAN PUU 10/1F DAMANSARA DAMAI	SHAH ALAM	40000	Bandar	0355125534	0355125534	859	775	1634
SELANGOR	BBA8272	SK SEKSYEN 7	JALAN PLUMBUM 7/100 SEKSYEN 7	SHAH ALAM	40000	Bandar	0351916642	0351923723	418	369	787
SELANGOR	BBA8273	SK SEKSYEN 2 (2)	NO.4, JALAN PAYA LEBAR 27/10	PUCHONG	47100	Bandar	0380767004	0380762460	353	302	655
SELANGOR	BBA8274	SK PUCHONG JAYA 2	JALAN TIONG	SHAH ALAM	40150	Bandar	0378485809	0378483552	804	726	1530
SELANGOR	BBA8275	SK TAMAN BUKIT SUBANG	SEKSYEN U16	SHAH ALAM	47301	Bandar	03-79632329	03-78459554	404	413	817
SELANGOR	BBA8276	SK PPR LEMBAH SUBANG	LEMBAH SUBANG	PETALING JAYA	47810	Bandar	0361421454	0361421455	619	593	1212
SELANGOR	BBA8277	SK SEKSYEN 11 KOTA DAMANSARA	JALAN MERBAH 11/2, KOTA DAMANSARA	PUCHONG	47100	Bandar	0380603204	0380603153	631	545	1176
SELANGOR	BBA8279	SK PUCHONG UTAMA 3	URG. PU 1, TAMAN PUCHONG UTAMA	SERI KEMBANGAN	43300	Bandar	0389410796	0389410758	518	470	988
SELANGOR	BBA8280	SK TAMAN SUNGAI BESI INDAH	TAMAN SUNGAI BESI INDAH	PETALING JAYA	46150	Bandar	0356316826	0356316843	418	376	794
SELANGOR	BBA8281	SK KAMPUNG LINDUNGAN	JALAN P15 10/11	SHAH ALAM	40150	Bandar	0378439364	0378439364	917	848	1765
SELANGOR	BBA8282	SK JALAN U3	JALAN SP 2/10, SUBANG PERDANA	SHAH ALAM	40170	Bandar	0122948914		203	167	370
SELANGOR	BBA8283	SK SETIA ALAM	NO.2, JALAN SETIA IMPIAN U13/3T, SETIA ALAM	SHAH ALAM	43300	Bandar	03-		525	461	986
SELANGOR	BBA8284	SK TAMAN DESAMINI UM	PERSIARAN DESAMINIUM 1, LESTARI PERDANA	Seri Kembangan	43950	Luar Bandar	0331411003	0331411003	342	375	717
SELANGOR	BBA8201	SK SUNGAI RAWANG	SUNGAI PELEK	SUNGAI PELEK,	43950	Luar Bandar	0331414276	0331414276	109	103	212
SELANGOR	BBA8202	SK BKT BANGKONG	KG ORG ASLI BKT BANGKONG	SUNGAI PELEK	43950	Luar Bandar	0331412758	0331412758	117	134	251
SELANGOR	BBA8203	SK SG PELEK	SG PELEK	SUNGAI PELEK	43900	Luar Bandar	0387061226	0387061226	365	326	691
SELANGOR	BBA8204	SK SALAK	JALAN BESAR SALAK, KAMPUNG SALAK TINGGI	SEPAANG	43900	Luar Bandar	0387061900	0387061900	240	208	448
SELANGOR	BBA8205	SK KG BAHARU LANJUT	KG BAHARU LANJUT	BANTING	42700	Luar Bandar	0388737573	TIADA	29	15	44
SELANGOR	BBA8207	SK KAMPONG BUSUT ASLI	KG. BUSUT BARU (A), BKT CHEDING	DENGGIL	43800	Luar Bandar	0387687211	0387687211	120	108	228
SELANGOR	BBA8208	SK JENDERAM	JALAN BESAR, KAMPUNG JENDERAM HULU	DENGGIL	43800	Luar Bandar	0387687900	0387687900	195	176	371
SELANGOR	BBA8209	SK JENDERAM HIJAU	JALAN DENGGIL	DENGGIL	43800	Luar Bandar	0387688267	0387688267	511	472	983
SELANGOR	BBA8210	SK DENGGIL	DENGGIL, SEPAANG	DENGGIL	43000	Luar Bandar	0389256699	0389256699	387	362	749
SELANGOR	BBA8211	SK SG MERAB LUAR	KG SG MERAB LUAR	KAJANG	43000	Luar Bandar	0389255928	0389255928	386	369	755
SELANGOR	BBA8212	SK DESA PUTRA	JALAN UTAMA, KAMPUNG DESA PUTRA	KAJANG	43000	Luar Bandar	0389255973	0389251136	323	314	637
SELANGOR	BBA8213	SK DATO' ABU BAKAR BAGINDA	JALAN UTAMA, KAMPUNG DESA PUTRA	KAJANG	43000	Luar Bandar	0389255973	0389251136	323	314	637
SELANGOR	BBA8214	SK PULAU MERANTI	BATU 8, PULAU MERANTI	PUCHONG	47100	Luar Bandar	0380612610	0380612610	279	273	552
SELANGOR	BBA8215	SK SG MELUT (ASLI)	KAMPONG ORANG ASLI SUNGAI MELUT	SEPAANG	43900	Luar Bandar	0387310425	0387062004	46	42	88
SELANGOR	BBA8216	SK BKT TAMPOI (ASLI)	JALAN DENGGIL BANTING	DENGGIL	43800	Luar Bandar	0387687889	0387687889	117	101	218
SELANGOR	BBA8217	SK BANDAR BARU SALAK TINGGI	BANDAR BARU SALAK TINGGI	SEPAANG	43900	Luar Bandar	0387063062	0387063062	467	427	894

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB9220	SK TAMAN SEROJA	JLN BBST, TMN SEROJA, BANDAR BARU SALAK TINGGI	SELANG	43900	Bandar	0387068407	0387068408	525	550	1075
SELANGOR	BB9221	SK TAMAN PANTAI SEPANG PUTRA	LOT 3870 JLN RAJA UDANG 8	SUNGAI PELEK	43950	Luar Bandar	0331412775	0331412775	332	356	688
SELANGOR	BB9224	SK TAMAN PUTRA PERDANA	JLN PUTRA PERDANA 3B, TMN PUTRA PERDANA	PUCHONG	47130	Luar Bandar	0196752004	0383194221	973	904	1877
SELANGOR	BB9225	SK KOTA WARISAN	PERSIARAN WARISAN PERMAI, KOTA WARISAN	SEPANG	43900	Luar Bandar	0387068799	0387068597	568	509	1077
SELANGOR	BB9226	SK CYBERIAYA	PERSIARAN BESTARI, ZON FLAGSHIP 2	CYBERIAYA	63000	Bandar	0383188211	0383188411	540	475	1015
SELANGOR	BB9227	SK KLIA	TAMAN MAWAR, BANDAR BARU SALAK TINGGI	SEPANG	43900	Bandar	0387064295	0387064295	423	405	828
SELANGOR	BB9228	SK TAMAN PUTRA PERDANA 2	JALAN PUTRA PERDANA 6, TAMAN PUTRA PERDANA	PUCHONG	47130	Bandar	0383184011	0383184014	680	608	1288
SELANGOR	BB0024	SK METHODIST ACS	JALAN MELAWIS	KLANG	41000	Bandar	0333711571	0333711571	763	0	763
SELANGOR	BB0025	SK (1) JALAN BATU TIGA	JALAN PEKAN BARU, TAMAN ENG ANN	KLANG,	41150	Bandar	0333417768	033417768	226	183	409
SELANGOR	BB0026	SK (2) JALAN BATU TIGA	JALAN PEKAN BARU, TAMAN ENG ANN	KLANG	41150	Bandar	0333417757	033417757	143	88	231
SELANGOR	BB0027	SK CONVENT (1) (IM)	112 JALAN TENGGU KELANA	KLANG	41000	Bandar	0333718669	0333718669	0	412	412
SELANGOR	BB0028	SK CONVENT (2) (IM)	112 JALAN TENGGU KELANA	KLANG	41000	Bandar	0333713439	0333713439	0	389	389
SELANGOR	BB0029	SK LA SALLE	143, PERSIARAN RAJA MUJDA MUJSA	KLANG	41050	Bandar	0333415786	033415786	220	176	396
SELANGOR	BB0030	SK (1) JALAN MERU	JALAN MERU	KLANG	41200	Bandar	0333157979	0334410120	169	119	288
SELANGOR	BB0031	SK (2) JALAN MERU	JALAN MERU	KLANG	41050	Bandar	0333157979	0334410120	169	119	288
SELANGOR	BB0032	SK METHODIST (M)	JALAN ORKID	PELABUHAN KLANG	42000	Bandar	0331666535	0331657115	607	350	957
SELANGOR	BB0033	SK PEREMPUAN METHODIST	JALAN RAYA BARAT	KLANG	41000	Bandar	0333713960	0333713960	0	946	946
SELANGOR	BB0034	SK TENGGU BENDAHARA AZMAN (1)	LORONG SABAH, PANDAMARAN	PELABUHAN KLANG	42000	Bandar	0331686648	0331686648	184	167	351
SELANGOR	BB0035	SK TENGGU BENDAHARA AZMAN (2)	LORONG SABAH, PANDAMARAN	PELABUHAN KLANG	42000	Bandar	0331687155	0331687155	138	116	254
SELANGOR	BB0086	SK PEREMPUAN BUKIT KUDA	JALAN LANDASAN	KLANG	41300	Bandar	0333414887	0333414887	50	293	343
SELANGOR	BB0037	SK (1) SEMPANG LIMA	PERSIARAN RAJA MUJDA MUJSA	KLANG	41200	Bandar	0333715930	0333715930	418	281	699
SELANGOR	BB0038	SK (2) SEMPANG LIMA	PERSIARAN RAJA MUJDA MUJSA	KLANG	41200	Bandar	033371752	0333712964	305	255	560
SELANGOR	BB0039	SK ST ANNE'S CONVENT	PERSIARAN RAJA MUJDA MUJSA	PELABUHAN KLANG	42000	Bandar	0331688359	0331688359	0	448	448
SELANGOR	BB1031	SK METHODIST	JALAN SULTAN JUGRA	BANTING	42700	Bandar	0331871504	0331871504	184	191	375
SELANGOR	BB1032	SK SRI LANGAT (INTEG)	JALAN SULTAN ABDUL SAMAD	BANTING	42700	Bandar	0331871278	0331801087	558	512	1070
SELANGOR	BB3030	SK SULTAN ABDUL AZIZ	JALAN KELAB	BATANG BERUNTAI	45600	Luar Bandar	0332891486	0332891486	110	107	217
SELANGOR	BB3033	SK BATU 9, JALAN BOMBA	JALAN BOMBA	TANJONG KARANG	45500	Bandar	0332698058	0332698058	549	447	986
SELANGOR	BB4028	SK CONVENT (M)	JALAN GEREJA	KAJANG	43000	Bandar	0387366493	0387366493	0	960	960
SELANGOR	BB4029	SK JALAN BUKIT SATU	JALAN BUKIT	KAJANG	43000	Bandar	0387331029	0387331029	108	98	206
SELANGOR	BB4030	SK (2) JALAN BUKIT	JALAN BUKIT	KAJANG	43000	Bandar	0387331516	0387331516	71	52	123
SELANGOR	BB4031	SK JALAN SEMENYIH '1'(INTEG)	JALAN SEMENYIH	KAJANG	43000	Bandar	0387367519	0387367519	184	110	294
SELANGOR	BB4032	SK JALAN SEMENYIH '2'(INTEG)	JALAN KOLAM AIR OFF JALAN SEMENYIH	KAJANG	43000	Bandar	0387367523	0387367523	219	94	313
SELANGOR	BB4033	SK SEMENYIH	KM 33, JALAN BESAR SEREMBAN	SEMENYIH	43500	Luar Bandar	0387238088	0387236799	1114	997	2111
SELANGOR	BB5021	SK KUALA KUBU BARU SATU	JALAN KUALA KUBU BARU	KUALA KUBU BHARU	44000	Bandar	0360641261	0360641261	184	179	357
SELANGOR	BB5023	SK KUALA KUBU BHARU DUA	JALAN RASATHURAI,	KUALA KUBU BHARU	44000	Bandar	0360641559	0360641559	169	160	329
SELANGOR	BB6028	SK KHIR JOHARI	JALAN RAJA CHULIAN	SABAG BERNAM	45200	Bandar	0332161285	0332161285	181	149	330
SELANGOR	BB6029	SK SERI UTAMA	JALAN BESAR	SUNGAI BESAR	45300	Bandar	6033242278	32242278	359	326	685
SELANGOR	BB6030	SK SERI SEKINCHAN	JALAN PARIT 6	SEKINCHAN	45400	Luar Bandar	0332410569	0332410569	261	204	465
SELANGOR	BB7301	SK (1) GOMBAK	KM 8, JALAN GOMBAK	KUALA LUMPUR	53100	Bandar	0361896143	0361896143	499	417	916
SELANGOR	BB7302	SK (2) GOMBAK	KM 8, JALAN GOMBAK	KUALA LUMPUR	53100	Bandar	0361890175	0361890175	389	418	807
SELANGOR	BB7303	SK (1) KUALA AMPANG	JALAN AWAN	AMPANG	68000	Bandar	0342523294	0342523294	89	71	160
SELANGOR	BB7304	SK (2) KUALA AMPANG	JALAN AWAN	AMPANG	68000	Bandar	0342568894	0342568894	35	42	77
SELANGOR	BB7305	SK (1) SELAYANG BARU	JALAN 45, SELAYANG BARU	BATU CAVES	68100	Bandar	0360352126	0360352126	213	193	406
SELANGOR	BB7306	SK SINARAN BUDI	JALAN KUALA GARING	RAWANG	48000	Bandar	0360916480	0360916480	556	405	961
SELANGOR	BB7307	SK BATU ARANG	BATU ARANG	BATU ARANG	48100	Bandar	0377824636	0377844636	0	830	830
SELANGOR	BB8301	SK ASSUNTA SATU	JALAN ASSUNTA	PETALING JAYA	46050	Bandar	0377824543	0377814569	0	835	835
SELANGOR	BB8302	SK ASSUNTA (2) (IM)	JALAN ASSUNTA	PETALING JAYA	46050	Bandar	0379574446	0379574446	179	0	179
SELANGOR	BB8303	SK (L) BUKIT BINTANG (1)	JALAN SUNGAI IERNIH 8/1, SEKSYEN 8,	PETALING JAYA	46050	Bandar	0379552482	0379552482	118	0	118
SELANGOR	BB8304	SK (L) BUKIT BINTANG (2)	JALAN SUNGAI IERNIH 8/1	PETALING JAYA	47300	Bandar	0378769051	0378769051	796	674	1470
SELANGOR	BB8305	SK KAMPUNG TUNKU	JALAN SS 1/11,	PETALING JAYA	46000	Bandar	0379567536	0379563505	615	0	615
SELANGOR	BB8306	SK LA SALLE, PJ	JALAN GASING,	PETALING JAYA	46000	Bandar	0379565015	0379552753	296	166	462
SELANGOR	BB8307	SK METHODIST, PJ	JALAN 5/37,	PETALING JAYA	46000	Bandar	0377829384	0377829384	179	116	295
SELANGOR	BB8308	SK (1) PETALING JAYA	JALAN 1/10	PETALING JAYA	46000	Bandar	0377829287	0377829287	89	58	147
SELANGOR	BB8309	SK (2) PETALING JAYA	JALAN 1/10	PETALING JAYA	46000	Bandar					

Negeri	Kod Sekolah	Nama Sekolah	Alamat Lokasi Sekolah	Bandar Lokasi Sekolah	Postkod Lokasi Sekolah	Lokasi	No Telefon	No Fax	L	P	Enrolmen
SELANGOR	BB8310	SK JALAN SELANGOR (SATU)	JALAN PADANG 4/48, JALAN SELANGOR	PETALING JAYA	46050	Bandar	0377821585	0377829873	0	159	159
SELANGOR	BB8311	SK (2) JALAN SELANGOR	4/48 JALAN PADANG	PETALING JAYA	46050	Bandar	0377839841	0377839841	0	171	171
SELANGOR	BB8312	SK SATU SULTAN ALAM SHAH	JALAN BUKIT 11/2, PETALING JAYA	PETALING JAYA	46200	Bandar	0379566941	0379566941	170	152	322
SELANGOR	BB8313	SK (2) SULTAN ALAM SHAH	JALAN BUKIT 11/2	PETALING JAYA	46200	Bandar	0379566859	0379601154	83	66	149
SELANGOR	BB8314	SK SRI PETALING	JALAN 12/15,	PETALING JAYA	46200	Bandar	0379567623	0379578126	575	461	1036
SELANGOR	BB8315	SK SHAH ALAM	JALAN DAWAI 16/2, SEKSYEN 16	SHAH ALAM	40200	Bandar	0355191161	0355182468	276	264	540
SELANGOR	BB8316	SK SUNGAI WAY	JALAN SS 9/13	PETALING JAYA	47300	Bandar	0378769450	0378747248	282	243	525
SELANGOR	BB8301	SK METHODIST (INTEG) (M)	SUNGAI PELEK	SUNGAI PELEK	43950	Luar Bandar	0331413173	0331413173	121	135	256
SELANGOR	BB8040	SIK(C) PEREMPUAN	95A, JALAN KOTA RAJA	KLANG	41000	Bandar	0333713760	0333713869	1107	968	2075
SELANGOR	BB8041	SIK(C) CHUEN MIN	LOT 389, JALAN JAMBU BOL / KS 1, TELOK PULAI	SHAH ALAM	41100	Bandar	0333726675	0333726675	356	316	672
SELANGOR	BB8042	SIK(C) CHUNG HUA	NO 1A, PERSIARAN ANGERIK ERIA, KOTA KEMUNING SEKS	SHAH ALAM	40460	Bandar	0333233401	0351213648	1081	1017	2098
SELANGOR	BB8043	SIK(C) HIN HUA	JALAN BATU NILAM, BANDAR BUKIT TINGGI	KLANG	41200	Bandar	0333245935	0331104062	152	164	316
SELANGOR	BB8044	SIK(C) HWA UEN	JALAN SEKOLAH, PULAU KETAM	PELABUHAN KLANG	42940	Luar Bandar	0331104062	0331104208	50	63	113
SELANGOR	BB8045	SIK(C) KENG CHEE	BAGAN TEOCHEW, PULAU KETAM	PELABUHAN KLANG	42940	Luar Bandar	0351211318	0351211318	643	652	1295
SELANGOR	BB8046	SIK(C) KHE BENG	BATU 8, JALAN BUKIT KEMUNING	KLANG	42450	Bandar	0333425729	0333425729	766	679	1445
SELANGOR	BB8047	SIK(C) KONG HOE	54, JALAN BATU TIGA	PELABUHAN KLANG	41300	Bandar	0331686784	0331686784	95	61	156
SELANGOR	BB8048	SIK(C) LEE MIN	KAMPUNG TELOK GONG	PELABUHAN KLANG	42000	Bandar	0331686632	0331663185	824	788	1612
SELANGOR	BB8049	SIK(C) PANDAMARAN 'A'	JALAN BESAR	PELABUHAN KLANG	42000	Bandar	0331686784	0331686784	1357	1229	2586
SELANGOR	BB8050	SIK(C) PANDAMARAN 'B'	JALAN YOUNG PANDAMARAN	PELABUHAN KLANG	42000	Bandar	0333445831	0333444210	826	805	1631
SELANGOR	BB8051	SIK(C) PIN HWA (1)	2, PERSIARAN SETIA MURNI, SETIA ALAM, SEKSYEN U13	SHAH ALAM	40170	Luar Bandar	0332911658	0332911658	1064	974	2038
SELANGOR	BB8052	SIK(C) PUI YING	BATU 4, JALAN KAPAR	KLANG	42100	Bandar	0333631334	-	71	71	142
SELANGOR	BB8053	SIK(C) SIN BIN	SUNGAI LIMA, PULAU KETAM	PELABUHAN KLANG	42940	Luar Bandar	0332508072	0332509184	553	518	1071
SELANGOR	BB8054	SIK(C) SOO JIN	PEKAN KAPAR	KAPAR	42200	Luar Bandar	0333922394	0333922394	171	164	335
SELANGOR	BB8055	SIK(C) TIONG HUA KOK BIN	JALAN MERU, BATU 6 OFF JALAN MERU	KLANG	41050	Bandar	0331686293	0331686293	817	690	1507
SELANGOR	BB8056	SIK(C) TSHING NIAN	25, JALAN TENGGU BADAR	PELABUHAN KLANG	42000	Bandar	0331762752	0331762752	17	17	34
SELANGOR	BB8057	SIK(C) WU TECK	BAGAN HYLAM	PELABUHAN KLANG	42200	Luar Bandar	0332508195	0332592986	177	158	335
SELANGOR	BB8058	SIK(C) YING WAH	BATU 12, JALAN KAPAR	KLANG	41050	Bandar	0332901292	0332901431	310	284	594
SELANGOR	BB8059	SIK(C) PIN HWA (2)	P.T. 51544 AMAN PERDANA	KLANG	41300	Bandar	0333447912	0333421302	1217	1127	2344
SELANGOR	BB8060	SIK(C) TAMAN RASHNA	JALAN BATU TIGA LAMA	BANTING	42700	Bandar	0331872752	0331872752	739	683	1422
SELANGOR	BB81035	SIK(C) CHOONG HUA	517 JALAN SULTAN ALAM SHAH	JENAJOM	47600	Luar Bandar	0331913244	0331916153	864	821	1685
SELANGOR	BB81036	SIK(C) JENAROM	JALAN SEKOLAH	BANTING	42700	Luar Bandar	0331277154	0331227154	279	233	512
SELANGOR	BB81037	SIK(C) KAH WAH	KG. PULAU, TELOK BUNUT	TELOK PANGLIMA GARANG	42500	Bandar	0331982901	0331982901	109	89	198
SELANGOR	BB81038	SIK(C) PENG MING	TELOK PANGLIMA GARANG, KUALA LANGAT	TELOK PANGLIMA GARANG	42700	Bandar	0331974224	0331974224	416	416	832
SELANGOR	BB81040	SIK(C) SIMPANG MORIB	SIMPANG MORIB	TANJONG SEPAT	42800	Luar Bandar	0331974224	0331974224	119	112	231
SELANGOR	BB81041	SIK(C) TANJONG SEPAT	JLN BESAR, TANJONG SEPAT	BANTING	42700	Luar Bandar	0331201507	0331201507	177	175	352
SELANGOR	BB81043	SIK(C) TIONG NAM	SUNGAI BUAYA	BANTING	45000	Bandar	0332891091	0332891091	177	175	352
SELANGOR	BB83034	SIK(C) AIK THEE	JALAN BAGAN PASIR	KUALA SELANGOR	45000	Luar Bandar	0332695077	0332695077	39	37	76
SELANGOR	BB83035	SIK(C) BAGAN PASIR	JALAN KERAMAT TANJUNG	TANJONG KARANG	45000	Luar Bandar	0332647386	0332647386	187	169	356
SELANGOR	BB83036	SIK(C) CHUNG WAH	JALAN SASARAN, BUKIT KUCHING	JERAM	45800	Luar Bandar	60332791593	60332791593	164	166	330
SELANGOR	BB83037	SIK(C) LUK	SIMPANG TIGA LUK	BESTARI JAYA	45620	Luar Bandar	0332891332	0332891332	213	195	408
SELANGOR	BB83038	SIK(C) KHAI TEE	PASIR PENAMBANG	KUALA SELANGOR	45800	Luar Bandar	0332648225	0332648225	63	53	116
SELANGOR	BB83040	SIK(C) LIAT CHOON	BATU 17, SUNGAI SEMBILANG	JERAM	45800	Luar Bandar	0332698400	0332698400	132	130	262
SELANGOR	BB83041	SIK(C) MING TEE	KAMPUNG TIRAM BURUK	TANJONG KARANG	45500	Luar Bandar	0332896557	0332896557	46	31	77
SELANGOR	BB83042	SIK(C) PUI CHI	ASSAM JAWA	BUKIT ROTAN	45700	Luar Bandar	0332648409	0332648409	45	37	82
SELANGOR	BB83043	SIK(C) PUI TEH	JALAN SIMPANG TIGA	JERAM	45800	Luar Bandar	0332698221	0332698221	239	246	485
SELANGOR	BB83044	SIK(C) TANJONG KARANG	JALAN DEWAN DATO' HORMAT	TANJONG KARANG	45500	Bandar	60332694248	0332694248	101	87	188
SELANGOR	BB83045	SIK(C) YIT KHWAN	BAGAN TANJONG KARANG	TANJONG KARANG	45500	Luar Bandar	0332719163	0332719163	129	102	231
SELANGOR	BB83047	SIK(C) YUK CHIH	JALAN BESAR, BESTARI JAYA (BATANG BEBUJANTAI)	BESTARI JAYA	45600	Luar Bandar	0389612319	0389612319	798	766	1564
SELANGOR	BB84034	SIK(C) BALAKONG	KAMPUNG BARU BALAKONG	SERI KEMBARANGAN	43300	Bandar	0390758118	0390749533	1231	1227	2458
SELANGOR	BB84035	SIK(C) BATU 9 CHERAS	JALAN CHERAS	CHERAS	43200	Bandar	0390753660	0390753660	1871	1754	3625
SELANGOR	BB84036	SIK(C) BATU 11	JALAN SEKOLAH, KG BARU BATU 11 CHERAS	CHERAS	43100	Luar Bandar	0390211288	0390211288	25	15	40
SELANGOR	BB84037	SIK(C) CHOON HWA	BATU 18, JALAN DUSUN TUA	HULU LANGAT	43500	Luar Bandar	0387238708	0387238708	387	348	735
SELANGOR	BB84039	SIK(C) KG BARU SEMENYIH	KAMPUNG BARU SEMENYIH	SEMENYIH	43500	Luar Bandar	0387238310	0387238310	745	660	1405
SELANGOR	BB84040	SIK(C) SIN MING	JALAN BESAR	SEMENYIH	43500	Luar Bandar					

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB C4041	SIK(C) SUNGAI CHUA	JALAN SEKOLAH, KG BARU SG CHUA	KAJANG	43000	Bandar	0387361349	0387361349	842	777	1619
SELANGOR	BB C4042	SIK(C) TON FAH	JALAN BESAR, BATU14	BERANANG	43700	Luar Bandar	0387669931	0387669931	69	63	132
SELANGOR	BB C4043	SIK(C) BATU 14	BATU14	HULU LANGAT	43100	Luar Bandar	0390213744	0390213744	180	155	335
SELANGOR	BB C4044	SIK(C) YOKE MIN	BANGI	KAJANG	43000	Bandar	0389202893	0389202893	107	96	203
SELANGOR	BB C4045	SIK(C) YU HUA	JALAN LOW TI KOK	KAJANG	43000	Bandar	0387367516	0387379643	1467	1343	2810
SELANGOR	BB C4046	SIK(C) KG BARU AMPANG	KG. BARU AMPANG	AMPANG	68000	Bandar	0342914245	0342927377	1004	895	1899
SELANGOR	BB C4047	SIK(C) ON PONG	LOT 6, JALAN BESAR	AMPANG	68000	Bandar	0342912225	0342802019	1183	1078	2261
SELANGOR	BB C4048	SIK(C) CONNALIGHT (2)	BANDAR DAMAI PERDANA	CHEPAS	56000	Bandar	0391012461	0391012461	1513	1404	2917
SELANGOR	BB C4049	SIK(C) ON PONG 2	PANDAN MEWAH	AMPANG	68000	Bandar	0342910270	0342910271	1129	1022	2151
SELANGOR	BB C5023	SIK(C) BUKIT CHANDANG	KAMPUNG BUKIT CHANDANG	BATANG KALI	44300	Luar Bandar	0360574028	0360574028	225	215	440
SELANGOR	BB C5024	SIK(C) BKT TANGGA	JALAN KASTURI	BUKIT BERUNTUNG	48300	Luar Bandar	0123583485	TIADA	208	170	378
SELANGOR	BB C5027	SIK(C) CHOONG CHEE	JALAN BESAR, HULU YAM LAMA	BATANG KALI	44300	Luar Bandar	0360752973	0360752973	101	93	194
SELANGOR	BB C5028	SIK(C) BUKIT FRASER	JALAN PADANG	BUKIT FRASER	44100	Luar Bandar	039622390	039622390	1	2	3
SELANGOR	BB C5029	SIK(C) KALUMPANG	KAMPUNG BARU KALUMPANG	KERLING	44300	Luar Bandar	0360491664	0360491664	132	132	264
SELANGOR	BB C5030	SIK(C) KAMPUNG GURNEY	ULU YAM BARU	BATANG KALI	44300	Luar Bandar	0360752072	0360752072	184	170	354
SELANGOR	BB C5031	SIK(C) KERLING	KAMPUNG AIR PANAS	KERLING	44100	Luar Bandar	0360481217	0360481217	88	87	175
SELANGOR	BB C5032	SIK(C) KHING MING	JALAN SEKOLAH	KUALA KUBU BHARU	44000	Bandar	0360641167	0360641167	202	183	385
SELANGOR	BB C5035	SIK(C) RASA	JALAN KUALA KALI,	RASA	44200	Luar Bandar	0360573344	0360573344	145	152	297
SELANGOR	BB C6037	SIK(C) SERENDAH	JALAN BESAR SERENDAH	SERENDAH	48200	Bandar	0360811433	0360811433	259	237	496
SELANGOR	BB C6039	SIK(C) CHEONG HUA	SIMPANG 4, BNO	SABAK BERNAM	45200	Luar Bandar	60332136260	60332136260	91	105	196
SELANGOR	BB C6031	SIK(C) HAI PING	BAGAN SUNGAI BURUNG	SUNGAI BESAR	45300	Luar Bandar	033242693	033242693	67	50	117
SELANGOR	BB C6032	SIK(C) LUM HUA	JALAN MOON TECK	SABAK BERNAM	45200	Bandar	0332161318	0332161318	161	142	303
SELANGOR	BB C6033	SIK(C) MOON TECK	SUNGAI PULAI	SG. AIR TAWAR	45100	Luar Bandar	0332136319	0332136319	11	8	19
SELANGOR	BB C6034	SIK(C) PHOOI TEH	JALAN BANGSANG SG. LANG	SG. AIR TAWAR	45200	Luar Bandar	0332162051	0332162051	52	42	94
SELANGOR	BB C6035	SIK(C) POAY CHNEH	JALAN PANGSANG PEDENA	SABAK BERNAM	45100	Luar Bandar	0332136100	0332136100	56	44	100
SELANGOR	BB C6036	SIK(C) SIN MIN	TELUK RU & BETING KEPAH	SUNGAI BESAR	45300	Luar Bandar	60332241257	60332241257	491	467	958
SELANGOR	BB C6037	SIK(C) PHOOI MIN	JALAN GEREA	SG. AIR TAWAR	45100	Luar Bandar	0332137387	0332137387	18	11	29
SELANGOR	BB C6038	SIK(C) YOKE KUAN	JALAN KIAN SIT	SEKINCHAN	45400	Luar Bandar	0332410173	0332410205	579	539	1118
SELANGOR	BB C7401	SIK(C) CHAP KHUAN	LORONG 3 SITE A	SEKINCHAN	45400	Luar Bandar	60332411722	60332411722	61	57	118
SELANGOR	BB C7402	SIK(C) KHEOW BIN	BATU ARANG	BATU ARANG	48100	Luar Bandar	0360352254	0360352254	200	164	364
SELANGOR	BB C7403	SIK(C) KUANG	BATU CAVES	BATU CAVES	68100	Bandar	0361850993	0361860993	1216	1039	2255
SELANGOR	BB C7404	SIK(C) KUNDANG	KAMPUNG BARU KUANG	RAWANG	48050	Luar Bandar	0360342345	0360342345	548	481	1029
SELANGOR	BB C7405	SIK(C) SAN YUK	KAMPUNG KENANGA	RAWANG	48020	Luar Bandar	0360916391	0360916391	1591	1393	2984
SELANGOR	BB C7406	SIK(C) SELAYANG BARU	JALAN 45, SELAYANG BARU	RAWANG	48000	Bandar	0361389089	0361363541	633	642	1275
SELANGOR	BB C7407	SIK(C) DESA JAYA	KEPONG	BATU CAVES	52100	Bandar	0362751185	0362751185	2160	2012	4172
SELANGOR	BB C8401	SIK(C) CHEN MOH	JALAN 2/32	KUALA LUMPUR	46000	Bandar	0377824982	0377839006	878	784	1662
SELANGOR	BB C8402	SIK(C) DAMANSARA	JALAN TROPICANA UTARA	PETALING JAYA	47100	Bandar	0377264568	0377264528	1268	1189	2457
SELANGOR	BB C8403	SIK(C) KUNG MAN	BATU 11, SERDANG LAMA	PETALING JAYA	43300	Bandar	0389486993	0389482169	752	692	1444
SELANGOR	BB C8404	SIK(C) HAN MING	JALAN MASJID, BATU 14, KG BAHARU PUCHONG	SERI KEMBANGAN	43300	Bandar	0380611641	0380608640	1920	1999	3919
SELANGOR	BB C8405	SIK(C) SERDANG BARU (1)	JALAN SEKOLAH	SERI KEMBANGAN	43300	Bandar	0389486644	0389484054	1540	1538	3078
SELANGOR	BB C8406	SIK(C) SERDANG BARU (2)	SERI KEMBANGAN	SERI KEMBANGAN	40150	Bandar	0378461596	0378465412	975	928	1903
SELANGOR	BB C8407	SIK(C) SUBANG	KAMPUNG BARU SUBANG	SHAH ALAM	47300	Bandar	0378461596	0378465412	559	492	1051
SELANGOR	BB C8408	SIK(C) SUNGAI WAY	JALAN S59A/1, SUNGAI WAY	PETALING JAYA	47000	Bandar	0361561673	0361561069	807	779	1586
SELANGOR	BB C8409	SIK(C) SUNGAI BULOH	KAMPUNG BARU SUNGAI BULOH	SUNGAI BULOH	47190	Bandar	0380701161	0380764025	1981	1915	3896
SELANGOR	BB C8410	SIK(C) YAK CHEE	BATU 8 KUCHAI PUCHONG	PUCHONG	47301	Bandar	0378054575	0378063670	1783	1720	3503
SELANGOR	BB C8411	SIK(C) YUK CHAI	JLN S524/1 TAMAN MEGAH	PETALING JAYA	46000	Bandar	0377820543	0377820543	542	497	1039
SELANGOR	BB C8412	SIK(C) YUK CHYUN	BT 6 1/2 JLN KLANG LAMA	PETALING JAYA	47300	Bandar	0378744363	0378770677	1128	1056	2184
SELANGOR	BB C8413	SIK(C) PUAY CHAI	JLN SS 2/54	PETALING JAYA	47500	Bandar	03568351333	0356833268	1654	1511	3165
SELANGOR	BB C8414	SIK(C) LICK HUNG	JALAN SS 19/6	SUBANG JAYA	47800	Bandar	037264298	037265564	1093	1066	2159
SELANGOR	BB C8415	SIK(C) PUAY CHAI 2	JALAN BUB/1, BANDAR UTAMA	PETALING JAYA	47630	Bandar	0380232174	0380232174	461	458	919
SELANGOR	BB C8416	SIK(C) TUN TAN CHENG LOCK	KOMPLEKS SEK. WAWASAN, PERSIARAN KEWAJIPAN	SUBANG JAYA	47600	Bandar	0380236745	0380236341	1440	1386	2826
SELANGOR	BB C8417	SIK(C) CHEE WIEN	USJ 1, JALAN SUBANG MEWAH, SUBANG MEWAH	SUBANG JAYA	47600	Bandar	0366720835	0366720636	1054	1016	2070
SELANGOR	BB C8418	SIK(C) DESA JAYA 2	PERSIARAN PERDANA, BANDAR SRI DAMANSARA	KUALA LUMPUR	52200	Bandar					

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB8C419	SI(KI) LADANG HARCROFT	JALAN KASAWARI 11, BANDAR PUCHONG JAYA	PUCHONG	47180	Bandar	0380767014	0380767014	1081	972	2053
SELANGOR	BB8C420	SI(KI) CHUNG HWA DAMANSARA	JALAN 17A/1	PETALING JAYA	46400	Bandar	0379545129	0379545131	132	103	235
SELANGOR	BB8C401	SI(KI) CHIO CHIAO	PEKAN SALAK	SEFANG	43900	Luar Bandar	0387061970	0387061970	89	110	199
SELANGOR	BB8C402	SI(KI) DENGKIL	DENGKIL, SEPANG	DENGKIL	43800	Luar Bandar	0387688259	0387686029	297	267	564
SELANGOR	BB8C403	SI(KI) SEPANG	KAMPUNG BARU,	SEPANG	43900	Luar Bandar	0331421848	0331421848	121	107	228
SELANGOR	BB8C404	SI(KI) SIN MING	BATU 16, JALAN PUCHONG	PUCHONG	47100	Luar Bandar	0380613387	0380613387	875	878	1753
SELANGOR	BB8C405	SI(KI) THE MIN	PEKAN SUNGAI PELEK	SUNGAI PELEK	43950	Luar Bandar	0331411002	0331411002	154	138	292
SELANGOR	BB8C406	SI(KI) WAH LIAN	KAMPUNG BARU	SUNGAI PELEK	43950	Luar Bandar	0331411267	0331411267	214	212	426
SELANGOR	BB8D060	SI(KI) LADANG BATU AMPAT	JALAN KOTA RAJA	KLANG	41000	Bandar	0351619703	0351619703	452	443	895
SELANGOR	BB8D061	SI(KI) LADANG BRAFFERTON	LADANG BRAFFERTON	KAPAR	42200	Luar Bandar	0162517092		25	24	49
SELANGOR	BB8D062	SI(KI) LADANG BUKIT RAJAH	LADANG BUKIT RAJAH, JALAN MERU	KLANG	41050	Luar Bandar	0331262540	0351262541	320	332	652
SELANGOR	BB8D072	SI(KI) LADANG EMERALD	BATU 8, JALAN KAMPUNG JAWA	KLANG	42450	Bandar	033235274	33243579	488	450	938
SELANGOR	BB8D074	SI(KI) LADANG HIGHLANDS	PERSIARAN BATU NILAM 2, BANDAR BUKIT TINGGI 2	KLANG	41200	Bandar	0332593485	0332593485	105	113	218
SELANGOR	BB8D075	SI(KI) LADANG JALAN ACOB	LADANG JALAN ACOB	KAPAR	42200	Bandar	0337241173	0337241173	55	61	116
SELANGOR	BB8D076	SI(KI) JALAN TEPI SUNGAI	JALAN TEPI SUNGAI OFF JALAN LEMBAGA BANDARAN	PELABUHAN KLANG	42000	Bandar	0331686678	0331656500	591	561	1152
SELANGOR	BB8D077	SI(KI) PERSIARAN RAJA MUDA MUSA	JALAN PERSIARAN RAJA MUDA MUSA	KLANG	41050	Bandar	033415593	033415593	351	367	718
SELANGOR	BB8D078	SI(KI) JALAN MERU	JALAN MERU	KLANG	41050	Bandar	0332500424	0332500424	528	576	1104
SELANGOR	BB8D079	SI(KI) METHODIST	JALAN BUKIT KAPAR,	KAPAR	42200	Luar Bandar	0332902107	0332902107	310	321	631
SELANGOR	BB8D084	SI(KI) SIMPANG LIMA	JALAN LANGAT, TAMAN SRI ANDALAS	KLANG	42200	Luar Bandar	0331878055	0331878055	127	141	268
SELANGOR	BB8D1047	SI(KI) LDG VALLAMBROSA	JALAN KAPAR, KAPAR	KLANG	42700	Luar Bandar	0331481107	0331481107	120	141	268
SELANGOR	BB8D1053	SI(KI) SG MANGGIS	SUNGAI MANGGIS	TG. SEPAT	42800	Luar Bandar	0331203193	0331203193	112	100	212
SELANGOR	BB8D1054	SI(KI) LDG GADONG	JALAN TANJUNG SEPAT-BANTING	BANTING	42700	Luar Bandar	0331917280	0331917280	110	127	237
SELANGOR	BB8D1054	SI(KI) LDG JUBRA	JALAN SULTAN ABDUL SAMAD	BANTING	42600	Luar Bandar	0331982245	0331982245	101	87	188
SELANGOR	BB8D1055	SI(KI) JENJAROM	JENJAROM	JENJAROM	42700	Luar Bandar	0331916855	0331916855	44	24	68
SELANGOR	BB8D1058	SI(KI) SIMPANG MORIB	SIMPANG MORIB	BANTING	42700	Luar Bandar	0331872326	0331872326	73	69	142
SELANGOR	BB8D1060	SI(KI) SUNGAI SEDU	SUNGAI SEDU	BANTING	42700	Luar Bandar	0331229732	0331229732	377	355	732
SELANGOR	BB8D1061	SI(KI) SUNGAI BUAYA	SUNGAI BUAYA	BANTING	42500	Bandar	0331872873	0331872873	337	415	752
SELANGOR	BB8D1062	SI(KI) TELOK PANGLIMA GARANG	TELOK PANGLIMA GARANG	BANTING	42700	Luar Bandar	0331973868	0331973868	71	61	132
SELANGOR	BB8D1063	SI(KI) PUSAT TELOK DATOK	BANTING	BANTING	42700	Luar Bandar	0331973868	0331973868	71	61	132
SELANGOR	BB8D1065	SI(KI) LADANG TUMBUK	TANJUNG SEPAT	TANJUNG SEPAT	42800	Luar Bandar	019-3840677	TIADA	23	12	35
SELANGOR	BB8D1066	SI(KI) PULAU CAREY SELATAN	PULAU CAREY SELATAN, KUALA LANGAT,	PULAU CAREY	42960	Luar Bandar	0123500124		34	35	69
SELANGOR	BB8D1067	SI(KI) PULAU CAREY BARAT	PULAU CAREY BARAT	PULAU CAREY	42960	Luar Bandar	01235152620	TIADA	18	15	33
SELANGOR	BB8D1068	SI(KI) PULAU CAREY TIMUR	PULAU CAREY TIMUR	PULAU CAREY	42960	Luar Bandar	0332719044	0332716637	404	388	792
SELANGOR	BB8D049	SI(KI) LDG BRAUNSTON	JALAN BESAR	BESTARI JAYA	45600	Luar Bandar	012-9357866	TIADA	13	24	37
SELANGOR	BB8D051	SI(KI) LDG BUKIT CHERAKA	LADANG BRAUNSTON	JERAM	45800	Luar Bandar	60332647922	0332647922	83	96	179
SELANGOR	BB8D052	SI(KI) LDG BKT IUOK	LDG. BKT. CHERAKA	JERAM	45800	Luar Bandar	0192060217		10	5	15
SELANGOR	BB8D055	SI(KI) LDG COALFIELDS	LADANG BUKIT IUOK	JERAM	45800	Luar Bandar	0360381682	0360381682	62	58	120
SELANGOR	BB8D056	SI(KI) GHANDIJI	LADANG COALFIELDS	SUNGAI BULOLOH	45400	Luar Bandar	0332411859	0332411859	38	32	70
SELANGOR	BB8D057	SI(KI) LDG HOPEFUL	SUNGAI BURONG	BESTARI JAYA	45600	Luar Bandar	0193823320	033289887	12	14	26
SELANGOR	BB8D058	SI(KI) LDG KG BARU	LADANG HOPEFUL	KUALA SELANGOR	45000	Luar Bandar	0132601983		9	13	22
SELANGOR	BB8D060	SI(KI) LADANG SUNGAI TERAP	LADANG SUNGAI TERAP	KUALA SELANGOR	45000	Luar Bandar	0332898029	03-32898029	26	39	65
SELANGOR	BB8D061	SI(KI) LDG KUALA SELANGOR	LDG SUNGAI TERAP	KUALA SELANGOR	45700	Luar Bandar	0122583867		52	40	92
SELANGOR	BB8D064	SI(KI) LDG RAJA MUSA	KM. 1.6 LADANG SUNGAI BULOLOH	KUALA SELANGOR	45000	Luar Bandar	013270306		36	35	71
SELANGOR	BB8D065	SI(KI) BUKIT ROTAN BARU	LADANG RAJA MUSA	BUKIT ROTAN	45700	Luar Bandar	0332812054	0332812054	38	26	64
SELANGOR	BB8D066	SI(KI) LDG RIVERSIDE	KM. 7.2 JALAN IUOK KUALA SELANGOR	KUALA SELANGOR	45000	Luar Bandar	0332897275	0332897275	40	38	78
SELANGOR	BB8D068	SI(KI) LDG SELANGOR RIVER	PELABT POS BUKIT ROTAN	BUKIT ROTAN	45700	Luar Bandar	0122416274		41	18	59
SELANGOR	BB8D069	SI(KI) LDG SG BULOLOH	LADANG SUNGAI BULOLOH	KUALA SELANGOR	45600	Luar Bandar	0332717977	0332717977	12	13	25
SELANGOR	BB8D071	SI(KI) LDG SG RAMBAL	LADANG SUNGAI RAMBAL	BESTARI JAYA	47000	Luar Bandar	0360382143	0360382143	26	21	47
SELANGOR	BB8D072	SI(KI) LADANG TUAN MEE	LADANG SUNGAI BULOLOH	KUALA SELANGOR	45000	Luar Bandar	0332896736	0332896736	318	321	639
SELANGOR	BB8D073	SI(KI) VAGEESAR	LADANG TUAN MEE	SUNGAI BULOLOH	45000	Luar Bandar	0389202706	0389202706	71	68	139
SELANGOR	BB8D051	SI(KI) BANGI	LADANG BROOMEE, BANGI	KAJANG	43000	Luar Bandar	0387239080	0387239080	17	12	29
SELANGOR	BB8D053	SI(KI) LDG DOMINION	LADANG DOMINION	SEMEYIH	43000	Luar Bandar	0387331590	0387331590	646	622	1268
SELANGOR	BB8D055	SI(KI) KAJANG	JALAN KOLAM AIR	KAJANG	43000	Bandar					

Negeri	KodSekolah	NamaSekolah	AlamatLokasiSekolah	BandarLokasiSekolah	PoskodLokasiSekolah	Lokasi	NoTelefon	NoFax	L	P	Enrolmen
SELANGOR	BB04057	SIK(1) LDG RINCHING	23RD MILE, JALAN SEREMBAN	SEMENYIH	43500	Luar Bandar	0387231143	0387231143	294	282	576
SELANGOR	BB04060	SIK(1) LDG SEMENYIH	JALAN BROGA	SEMENYIH	43500	Luar Bandar	0387238911	0387238911	232	220	452
SELANGOR	BB04063	SIK(1) LDG WEST COUNTRY 'TIMUR'	JALAN 5 SEKSYEN 5 BDR BARU BANGI	KAMPANG	43000	Bandar	0387364041	0387364041	207	224	431
SELANGOR	BB04064	SIK(1) AMPANG	JALAN AMPANG	AMPANG	68000	Bandar	0342953179	0342953179	313	345	658
SELANGOR	BB05041	SIK(1) LDG BATAANG KALI	LADANG BATAANG KALI	BATAANG KALI	44300	Luar Bandar	0360570857	0360570857	178	138	316
SELANGOR	BB05043	SIK(1) LDG CHANGKAT ASA	LADANG CHANGKAT ASA	TANJUNG MALIM	35900	Luar Bandar	0545909884	0545909884	28	32	60
SELANGOR	BB05044	SIK(1) LDG ESCOT	LADANG ESCOT,	TANJUNG MALIM	35900	Luar Bandar	0545909884	0545909884	35	25	60
SELANGOR	BB05045	SIK(1) LDG KUALA KUBU BHARU	JALAN DATO' BALAI	KUALA KUBU BHARU	44000	Luar Bandar	0360644255	0360644255	240	200	440
SELANGOR	BB05047	SIK(1) LDG KERLING	LADANG KERLING	KERLING	44100	Luar Bandar	0360482499	0360482499	35	30	65
SELANGOR	BB05048	SIK(1) LDG LIMA BELAS	LADANG LIMA BELAS,	TANJUNG MALIM	35900	Luar Bandar	054590601	054590601	54	62	116
SELANGOR	BB05051	SIK(1) LDG MINYAK	LADANG MINYAK	BESTARI JAYA	45600	Luar Bandar	0169154292	0169154292	1	1	2
SELANGOR	BB05052	SIK(1) LDG NIGEL GARDNER	LADANG NIGEL GARDNER	BESTARI JAYA	45600	Luar Bandar	0123490068	0123490068	41	19	60
SELANGOR	BB05058	SIK(1) LDG SG CHOH	TAMAN BUKIT TERATAI,	RAWANG	48300	Luar Bandar	0360282275	0360282275	237	241	478
SELANGOR	BB05059	SIK(1) BUKIT BERUNTUNG	BANDAR BARU BUKIT BERUNTUNG,	RAWANG	48300	Bandar	0360285213	0360285213	212	200	412
SELANGOR	BB05061	SIK(1) LDG MARY	LADANG MARY	RAWANG	45600	Luar Bandar	0132088136	0132088136	10	5	15
SELANGOR	BB05062	SIK(1) LDG SG TINGGI	LADANG SUNGAI TINGGI	BESTARI JAYA	45600	Luar Bandar	0126720573	0126720573	28	27	55
SELANGOR	BB06039	SIK(1) LDG SUNGAI BERNAM	LADANG SUNGAI BERNAM	SABAK BERNAM	45200	Luar Bandar	0125005190	0125005190	17	12	29
SELANGOR	BB06040	SIK(1) LDG SABAK BERNAM	LADANG SABAK BERNAM	SABAK BERNAM	45200	Luar Bandar	60332165191	0332165191	55	67	122
SELANGOR	BB07451	SIK(1) BATU CAVES	BATU CAVES	BATU CAVES	68100	Luar Bandar	0361890354	0361890354	921	858	1779
SELANGOR	BB07452	SIK(1) BATU ARANG	BATU ARANG	BATU ARANG	48100	Luar Bandar	0360352350	0360352350	162	136	298
SELANGOR	BB07453	SIK(1) KUANG	KUANG	RAWANG	48050	Luar Bandar	0360372271	0360372271	105	77	182
SELANGOR	BB07454	SIK(1) BUKIT DARAH	JALAN KUALA SELANGOR	SUNGAI BULOH	47000	Bandar	0360381335	0360381335	138	130	268
SELANGOR	BB07455	SIK(1) RAWANG	JALAN KUALA GARING	RAWANG	48000	Bandar	0360916057	0360916057	715	722	1437
SELANGOR	BB07456	SIK(1) TAMAN MELAWATI	JLN MELAWATI 5, TMN MELAWATI	RAWANG	53100	Bandar	0341053136	0341053136	166	156	313
SELANGOR	BB08451	SIK(1) CASTLEFIELD	BATU 11 3/4 JALAN PUCHONG	KUALA LUMPUR	47100	Bandar	0380611767	0380611767	256	218	474
SELANGOR	BB08452	SIK(1) LDG EFFINGHAM	JALAN BU 11/1, BANDAR UTAMA DAMANSARA	PETALING JAYA	47800	Bandar	0377250751	0377250751	196	226	422
SELANGOR	BB08453	SIK(1) F S SERDANG	UNIPUTRA POS SERDANG	SERI KEMBANGAN	43400	Bandar	0389484069	0389484069	311	370	681
SELANGOR	BB08454	SIK(1) PUCHONG	JALAN BUNGA TANJUNG, BT 14	PUCHONG	47100	Bandar	0380622649	0380622649	608	622	1230
SELANGOR	BB08455	SIK(1) LDG KINRARA	JLN PUCHONG, PETALING, PUCHONG	PUCHONG	47100	Bandar	0380767691	0380767691	317	373	640
SELANGOR	BB08456	SIK(1) RRI SUNGAI BULOH	RRI SUNGAI BULOH	SUNGAI BULOH	47000	Bandar	0361576179	0361576179	195	195	390
SELANGOR	BB08457	SIK(1) SARASWATHY	SUNGAI BULOH	SUNGAI BULOH	47000	Bandar	0361565751	0361565751	351	347	698
SELANGOR	BB08458	SIK(1) VIVEKANANDA	JALAN TEMPLER	PETALING JAYA	46050	Bandar	0379563829	0379563829	659	613	1272
SELANGOR	BB08461	SIK(1) HICOM	BATU TIGA	SHAH ALAM	40000	Bandar	0351917260	0351917260	128	118	246
SELANGOR	BB08462	SIK(1) LDG GLENMARIE	JALAN SUBANG, BATU TIGA	SHAH ALAM	40000	Bandar	0356221504	0356221504	64	52	116
SELANGOR	BB08463	SIK(1) LDG MIDLANDS	JALAN PLUMBUM 7/100	SHAH ALAM	40000	Bandar	0378472150	0378472150	46	57	103
SELANGOR	BB08464	SIK(1) LDG NORTH HUMMOCK	LADANG NORTH HUMMOCK, BATU 5, JALAN MERU	SHAH ALAM	41050	Luar Bandar	0333443602	0333443602	115	144	259
SELANGOR	BB08466	SIK(1) LDG RASAK	LOT PT 2012, LADANG BUTE MUKIM LABU,	KLANG	40160	Bandar	0136616283	0136616283	84	74	158
SELANGOR	BB08467	SIK(1) SEAPORT	JALAN SS7/4, KELANA JAYA	PETALING JAYA	47301	Bandar	0378737634	0378737634	59	44	103
SELANGOR	BB08468	SIK(1) SG RENGAM	18/1, JALAN PINANG, SEKSYEN 18	SHAH ALAM	40200	Bandar	55419445	55419445	570	602	1172
SELANGOR	BB08469	SIK(1) LDG SEAFIELD	JALAN USJ 20/18 UEP SUBANG JAYA	SHAH ALAM	47630	Bandar	0380234548	80234548	63	56	119
SELANGOR	BB08470	SIK(1) TUN SAMBANTHAN	KOMPLEKS SEK. WAWASAN, USJ 15, PERSIARAN KEWAJIPAN	SUBANG JAYA	47630	Bandar	0380242530	0380242530	348	378	726
SELANGOR	BB09452	SIK(1) LDG AMPAR TENANG	LDG AMPAR TENANG,	SUBANG JAYA	43800	Luar Bandar	0387687977	0387687977	27	43	70
SELANGOR	BB09453	SIK(1) LDG LANG BUTE	LOT PT 2012, LADANG BUTE MUKIM LABU,	DENGGIL	43900	Luar Bandar	0192196125	0192196125	11	14	25
SELANGOR	BB09454	SIK(1) BANDAR BARU SALAK TINGGI	BANDAR BARU SALAK TINGGI	SEPAANG	43900	Bandar	0387061596	0387061596	160	159	319
SELANGOR	BB09455	SIK(1) DENGGIL	DENGGIL	SEPAANG	43800	Luar Bandar	0387687984	0387687984	154	156	310
SELANGOR	BB09457	SIK(1) TAMAN PERMATA	TAMAN PERMATA	DENGGIL	43800	Luar Bandar	0387680253	0387680253	86	87	173
SELANGOR	BB09458	SIK(1) SEPAANG	JALAN KELAB	DENGGIL	43900	Luar Bandar	0331421992	0331421992	142	153	295
SELANGOR	BB09460	SIK(1) TELUK MERBAU	LADANG TELUK MERBAU,	SEPAANG	43950	Luar Bandar	0331421593	0331421593	225	246	471
SELANGOR	BB09461	SIK(1) LDG WEST COUNTRY 'BARAT'	JALAN KAJANG PUCHONG	KAJANG	43000	Luar Bandar	TIADA	TIADA	30	39	69

EXTENDED ABSTRACT

COMPARISON OF DIETARY PRACTICES BETWEEN OVERWEIGHT AND NORMAL-WEIGHT CHILDREN IN PUCHONG, SELANGOR

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The prevalence of overweight and obesity had increased tremendously among children worldwide. About 22 million of children and adolescents worldwide are overweight. This common nutritional problem rapidly occurs in the developed countries and prevalence is increasing in developing countries as well. The global epidemic of overweight and obesity is one of the major public health concerns in children. In Asia, Malaysia is one of the countries that has high prevalence of overweight and obesity. The prevalence of overweight and obesity among children had increased from 20.7% in 2001/2002 to 26.1% in 2007/2008.

Childhood obesity is often linked with effects with significant impact on physical and psychological wellbeing. Overweight and obese children were at risk for developing medical problems that affect their present and future health and quality of life including high blood pressure, high cholesterol and abnormal blood lipid levels, insulin resistance type 2 diabetes, tendency to mature earlier and depression. Overweight and obesity also was associated with decreased productivity due to morbidity and mortality.

Rapid growth and development in Malaysia characterized due to urbanization and globalization lead changes in dietary practices by reduction of the prevalence of nutritional deficiency and the more expressive occurrence of overweight and obesity. Some factor from dietary practices studied been reported and yet there is limited published study conducted to compare the dietary practices between overweight and normal-weight children in Puchong. Therefore, the present study aims to compare diet practices between overweight and with normal-weight children.

This was cross-sectional comparative study. Multi stage sampling was used in this study. A list of primary schools in Selangor was obtained from the Ministry Education Department of Selangor and then all primary schools in Puchong area were identified. There were sixteen schools met the inclusion criteria which is national primary school and Malaysian children. Simple random sampling was used to select four schools from sixteen national primary schools to achieve enough number of children. All students from Standard 4 and Standard 5 who present on the day and willing to participate included as respondents of the study.

There were two phases in the study. In Phase I of the study, body weight status screening on 10-11 years old children was done to determine the overweight and normal-weight. Body weight and height were measured. In Phase II of the study, overweight and normal-weight children were matched by age, gender and ethnicity, and comparison of dietary practices were conducted between these two groups. Children completed the Eating Behaviour Questionnaire (EBQ), Children Eating Attitudes Test (ChEAT) and two-day 24-hour dietary recall.

In Phase I of the study, total of 384 primary school children were screened comprised of 182 (47.4%) male and 202 (52.6%) female. Multiracial ethnicity which is Malay, Indian, Chinese and other ethnicity, such as Kadazan and Iban was 339 (88.3%), 31 (8.1%), 11(2.9%), and 3 (0.8%) respectively. From the population, the children obtained were normal-weight (52.6%), overweight (17.4%) and obese (18.2%) as well thinness (10.7%) and severe thinness (1.0%). The prevalence of overweight and obesity in the present study among primary school children was 35.6%.

Matching criteria involved in Phase II where the out screened 384 primary school children, 117 overweight children were matched the pair for age, gender, and ethnicity with age of 10.75 ± 0.43 years. Majority of the respondents were Malays (94.0%), followed by Indian (4.0%) and Chinese (2.0%). About 64 (54.7%) of overweight children's father and 47 (40.2%) of normal-weight children's father completed their secondary school. Apart from that, about 55 (63.7%) of overweight children's mother and 48 (59.3%) of the normal-weight children's mother completed their secondary school.

Besides, most of them work in plant and machine-operators (27.1%). It followed by professional's work (25.9%) and technicians and associate professional (18.8%). For mothers, highest percentage fall at unemployed such as housewife and second highest is professional setting where it consist of 22.4%. For overweight children parent's monthly income was $RM5364.91 \pm 9864.23$ while normal-weight children parent's monthly income was $RM4237.44 \pm 3396.35$.

The total energy intake of overweight children (2077 ± 753) was higher than NW children (1808 ± 650 , $p < 0.001$). Overweight children showed significantly higher mean intakes of energy. Significantly higher proportions of the overweight achieved recommended nutrient intake (RNI) compared to normal-weight children in protein ($\chi^2 = 7.115$, $p = 0.008$), Vitamin C ($\chi^2 = 3.757$, $p = 0.053$) and niacin ($\chi^2 = 10.548$, $p = 0.001$). The macronutrients such as protein and carbohydrates showed that the intake of overweight children was significantly higher compared to normal-weight children. However, almost half of the children (OW: 54.3%; NW: 43.6%) under-reported their energy intake ($p = 0.295$).

The mean score of ChEAT were 17.89 ± 11.55 for overweight children and 17.15 ± 12.00 for normal-weight children. Majority of children were not disordered eating (64.6%) while 35.4% were disordered children. This indicated that almost one in two were at risk of disordered eating. If compared with two groups, overweight children had disordered eating (30.8%) and normal-weight (29.1%). However, there is no significant difference between normal-weight and overweight children as well ($p = 0.657$).

Meal skipping was not significantly different among overweight and normal-weight children in breakfast skipping ($p = 0.891$), lunch skipping ($p = 0.296$), dinner skipping ($p = 0.288$). Breakfast was the most frequently skipped meal for both overweight (65.0%) and normal-weight (64.1%) children. Majority of overweight and normal-weight were least skipped dinner a day. Snacking behaviour was higher at morning tea, followed by afternoon tea and supper. There were no significant

differences in snacking behaviour at morning tea ($p=0.386$), afternoon tea ($p=0.183$) and supper ($p=0.857$).

Majority overweight and normal-weight children had their meals with family members were 88.0% and 83.6% respectively. However, there was no significant difference in family meal consumption ($t=-4.837$, $p=0.063$). Overweight children (1.95 ± 1.44 days/week) and normal-weight children (2.29 ± 1.60 days/week) seldom consumed fast food. There was no significant difference in fast food consumption between overweight and normal-weight children ($p=0.093$).

Overall, overweight and obesity were likely influenced by dietary practices in total energy intake, macronutrients and micronutrients intake. Hence, promoting healthy dietary practices should be incorporated in the future obesity prevention programs among children. Future studies should focus on determining factors associated with misreporting of nutrient intake in overweight and normal-weight children.