

NATIONAL HEALTH AND MORBIDITY SURVEY 2017

ADOLESCENT NUTRITION SURVEY

WP PUTRAJAYA



THE NATIONAL HEALTH AND MORBIDITY SURVEY 2017

ADOLESCENT NUTRITION SURVEY 2017

Contributors

The following persons had contributed in the interpretation of findings, discussion on implication, conclusion and/or drawing recommendations for this report.

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Perpustakaan Negara Malaysia

Cataloging-in-Publication Data

National Health and Morbidity Survey 2017 (NMRR-16-698-30042)

ISBN 978-983-2387-64-0

MOH/S/IKU/96.18(RR)

Suggested citation:

Institute for Public Health (IPH) 2017. National Health and Morbidity Survey (NHMS) 2017: Adolescent Nutrition Survey 2017, Malaysia.

Disclaimer:

The views expressed in this report are those of the authors alone and do not necessarily represent the opinions of the other investigators participating in the survey, nor the view or policy of the Ministry of Health.

Produce and Published by:

The National Health and Morbidity Survey 2017: Adolescent Nutrition Survey 2017

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Published by Institute for Public Health, National Institutes of Health, Ministry of Health Malaysia.

Acknowledgement

The authors would like to thank the Director General of Health Malaysia and the National Health and Morbidity Survey (NHMS) Steering Committee Team for supporting this research project via financial grant and technical support. The research team member also would like to express their gratitude to the Director General Education, Ministry of Education, Malaysia as well as Director of Nutrition and other staff at Nutrition Division, Food Safety & Quality Division and the Ministry of Health for the input given.

The Adolescent Nutrition Survey would not have been completed without the commitment and dedication shown by the Ministry of Education in conducting this study at selected schools nationwide. We specifically thanks the State Education Department, Principals, Headmasters, teachers, students and parents for their excellent cooperation and commitment throughout the study.

The authors wish to extend our gratitude to all research team members. We are deeply indebted to the staff the Institute for Public Health, State Health Department, State and Distrit Nutritionist and our committed research assistants who contributed greatly to this study. Without their support and commitment, this study would not have come this far.

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Executive Summary

The Adolescent Nutrition Survey (ANS) is the second nation-wide study among adolescents in Malaysia after the Malaysia School-based Nutrition Survey (MSNS) 2012. There are three main scopes in this survey which are Adolescent Nutrition Survey (ANS), Habitual Food Intake and Dietary Intake. ANS consists of six topics such as nutritional status, body weight perception, meal pattern, physical activity, vitamin/mineral, food supplement intakes and food and nutrition labelling. This survey was conducted at 311 randomly selected schools in all states including three federal territories in Malaysia. This school-based survey was a cross-sectional study involving school-going adolescents aged Primary 4 To Secondary 5 attending school in Malaysia. A multistage stratified cluster sampling design was used to recruit national representative samples from students in Standard 4 to 6 (10-12 years of age) and Form 1 to 5 (13-17 years of age). The survey was conducted using self-administered questionnaires. Total response rates for self administered questionnaire were 89.5% for ANS.

Based on the indicator height for age (HAZ), the prevalence of normal height ($HAZ \geq -2SD$) was 94.0% and stunting was 6.0%. In terms of BMI for age (BAZ), the prevalence of thinness was 6.2%, overweight was 16.8% and obesity was 15.5%.

Among those school-going adolescents who had actual normal weight, 50.2% correctly perceived their weight to be normal. Among those who were actually thin, 72.1% correctly perceived their weight to be thin, while among those who were actually overweight and obese, 46.9% and 10.3% correctly perceived themselves to be overweight and obese respectively. Health was the main reason among those who wanted to lose and gain weight; with 61.5% preferring exercise as an option to lose weight; 51.7% wanted to increase quantity of food to gain weight.

As for meal pattern, the prevalence of breakfast intake for seven days per week among adolescents was 28.6%. More than half, one to six days per week (61.5%) and some of them did not having breakfast in a week (10.0%). Among those who had breakfast, 76.3% had it at home. Boys (30.8%) reported having breakfast daily (seven days per week), higher than girls areas (25.9%). The two main reasons of skipping breakfast were no appetite (32.3%) and no time (43.9%).

The prevalence of having lunch seven days per week among school-going adolescents was 47.2%; 50.6% had lunch up to six days per week and 2.2% did not have lunch in a week. No appetite (33.9%) and no time (19.8%) were the two main reasons for skipping lunch. As for dinner, 56.1% of school-going adolescents had dinner seven days per week, 40.9% 1-6 days per week and 2.9% did not have dinner in a week. Only 8.4% took heavy meals after dinner seven days per week.

There were 2.3% who had fast food daily and 8.7% did not have fast food in a week. Social media (YouTube, Facebook, Instagram, etc.) and television were reported as the main sources which affected dietary pattern in 44.4% and 37.6%. A percentage of 24.6% reported that their dietary patterns were not affected by any media sources.

For dietary intake, the median energy intake of adolescents was 1848 kcal, which was 90.2% of the Recommended Nutrient Intake (RNI) for energy. Boys reported higher median energy intake with 2068 kcal compared to girls (1670 kcal). Half of the total daily energy intake consisted of carbohydrate (51.6%), protein (15.0%) and fat (33.4%). The total daily energy intake was derived from three main meals: breakfast (20.8%), lunch (26.0%) and dinner (25.7%).

The prevalence of physical activity among school-going adolescents in WP Putrajaya was 54.9%. Boys and younger adolescents were more active than girls and older adolescents. The most favourite activities during spare time were walking for exercise, jogging / running, badminton, tagging and cycling. More adolescents watched television, played computer or video games over the weekend compared to schooling days.

The prevalence of vitamin/minerals and food supplements intake among WP Kuala Lumpur adolescence was 44.3% and 33.2%. There was no significant difference of vitamin/mineral and food supplement intakes between boys and girls, ethnicity, school classes and localities. In average, the vitamin/mineral and food supplements were consumed everyday by 14.6% and 9.2% of adolescents. The most commonly consumed vitamin/ minerals and food supplements were Vitamin C 31.9% and Bee product 13.5%. The main reason for taking vitamin/minerals and food supplements was due to parent's advised which was, 46.3% and 28.2% respectively.

Food and nutrition labelling use was assessed among secondary school-going adolescents; 32.7% always reading food and nutrition labelling. Another 52.7% reported as sometimes and only 14.6% never reading food label. They were more concerned about fat and total energy compared to other nutrients. 54.2% of adolescents both answered correctly on nutrition facts and 27.1% of adolescents answered correctly questions regarding the front of pack labelling and only 4.3% answered both correctly regarding the most and least ingredients based on the food ingredient list.

1.0 Introduction

Adolescence is a period of transition between childhood and adulthood. The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19 (WHO, 2014). Adolescence is a critical period because major biological and psychological changes occur during a very short period of time.

Adolescent health should be given attention because adolescents are the future generation of any country and their health statuses are critical for the well-being of society. Chronic malnutrition is one of the major health problems encountered by adolescents living in developing countries (World Health Organization, 2006). The high rate of malnutrition among girls not only contributes to increased morbidity and mortality associated with pregnancy and delivery but also to increased risk of delivering low birth-weight babies (World Health Organization, 2006). This contributes to the intergenerational cycle of malnutrition.

The nutritional issue in adolescents should be prioritized because growth during adolescence is at a fast pace. Adequate nutrition during adolescence is important to cover the deficits suffered during childhood. Moreover, extra micro and macro-nutrients are required to meet the demands of physical and cognitive growth, as well as provide adequate stores of energy for illnesses and pregnancy. To a more important extent, epidemiological evidence proved that there is a link between child and adolescent poor nutritional status and increased risk of various chronic diseases during adulthood (Case, Fertig, & Paxson, 2005).

Due to the targets of the first Millennium Development goal to "eradicate extreme poverty and hunger, the underweight prevalence in children was projected to decline from 26.5% in 1990 to 17.6% in 2015 across the world and specifically in developing regions; the prevalence was forecasted to decline from 30.2% to 19.3% (Onis, Blossner, Borghi, Frongillo, & Morris, 2004). Undernutrition rate in Malaysian children also showing a decreasing pattern. Data from the Third National Health and Morbidity Survey (NHMS III) 2006 in Malaysia found that the prevalence of underweight, stunted and thinness in children below 18 years old were 13.2%, 15.8% and 7.8% respectively (Institute of Public Health (IPH), 2008). However, these conditions were generally improved when NHMS 2015 showed that the prevalence of underweight, stunting and thinness were reduced to 13.0%, 13.4% and 7.8% respectively (IPH, 2015). NHMS 2011 reported that the national prevalence of thinness among adolescents specifically was 9.7% (IPH, 2011)

Recently, a systematic review reported that the prevalence of overweight and obesity among adolescents worldwide is high, and obesity is higher among boys (Bibiloni, Pons, & Tur, 2013) and Malaysia is showing a similar pattern as well. The prevalence of obesity among children was only 5.7% in the year 2006 (IPH, 2008) and it drastically increased to 11.9% in the year 2015 (IPH, 2015). NHMS in the year 2011 showed that the nationwide prevalence of obesity in adolescent age 10 – 17 was 5.7% (IPH, 2011).

High-calorie intake and sedentary lifestyle are two common behavioral factors related to childhood obesity. Childhood and adolescent obesity are an epidemic and should be given attention because they are associated with various medical chronic conditions in adulthood (Sahoo et al., 2015). Reading food labels prior to food purchasing can help adolescents in making healthier choices on packaged snacks. However, use of nutritional labelling was found to be low among adolescents (Wojcicki & Heyman, 2012). Thus, Adolescent Nutrition Survey NHMS 2017 aims at age 10 – 17 years old to continue exploring issues pertaining to nutrition related component in adolescents in Malaysian such as nutritional status, body weight perception, meal pattern, habitual food intake, dietary intake, physical activity level, vitamin/mineral and food supplement intake and food and nutrition labelling.

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1.1 Objectives

1.1.1 General Objectives

To determine the prevalence of nutritional status, body weight perception, habitual food intake, dietary intake, meal pattern, physical activity level, vitamin/mineral and food supplements and food and nutrition labelling among adolescents in Malaysia.

1.1.2 Specific Objectives

1.1.2.1 To determine the prevalence of nutritional status among of adolescents (Standard 4 to Form 5).

1.1.2.2 To assess self-perception on body weight and intentions on weight management among adolescents (Primary 4 to Secondary 5).

1.1.2.3 To determine the meal pattern among of adolescents (Primary 4 to Secondary 5).

1.1.2.4 To assess physical activity pattern of adolescents adolescents (Primary 4 to Secondary 5).

1.1.2.5 To determine the pattern of use of vitamin/mineral and food supplements among adolescents adolescents (Primary 4 to Secondary 5).

1.1.2.6 To determine the prevalence of reading food and nutrition labeling among adolescents (Secondary 1 to Secondary 5).

1.2 The NHMS 2017 Organisation Team

The organisation of NHMS 2017 was set up at various levels of the Ministry of Health and Ministry of Education in order to conduct this survey.

1.2.1 NHMS Steering Committee

The NHMS Steering Committee, chaired by the Director-General of Health was set up at the national level to approve scopes of the NHMS 2015-2018 and to facilitate implementation of the survey. The members and terms of reference of this committee are shown in **Appendix 1** and **Appendix 2**.

1.2.2 Central Coordinating Team (CCT)

A working committee within the Institute for Public Health was established to coordinate implementation of the survey according to the scheduled Gantt chart. The Operation Centre was set up and led by the CCT team for coordinating and monitoring progress of the survey.

The list of CCT members and terms of reference are shown in **Appendix 3** and **Appendix 4**. **Figure 1** detailed the organisation chart at the Institute for Public Health level. Adolescent Nutrition Survey was part of NHMS 2017 using the sample from primary and secondary schools.

1.2.3 Research Team Members

Research team members for each sub-scope were established and headed by a key-person (among IPH officers) together with the relevant stakeholders and universities. Research team members were responsible for the technical input in development of the questionnaire manual, variable definition, data analysis and writing of the final report.

The list of members for each research teams are shown in **Appendix 5**.

1.2.4 State Liason Officers and Data Collection Team

A State Liaison Officer (Nutritionist) was appointed in each State to facilitate planning and implementation of data collection within the States. The list of State Liaison Officers and Data Collection Teams are shown in **Appendix 6**.

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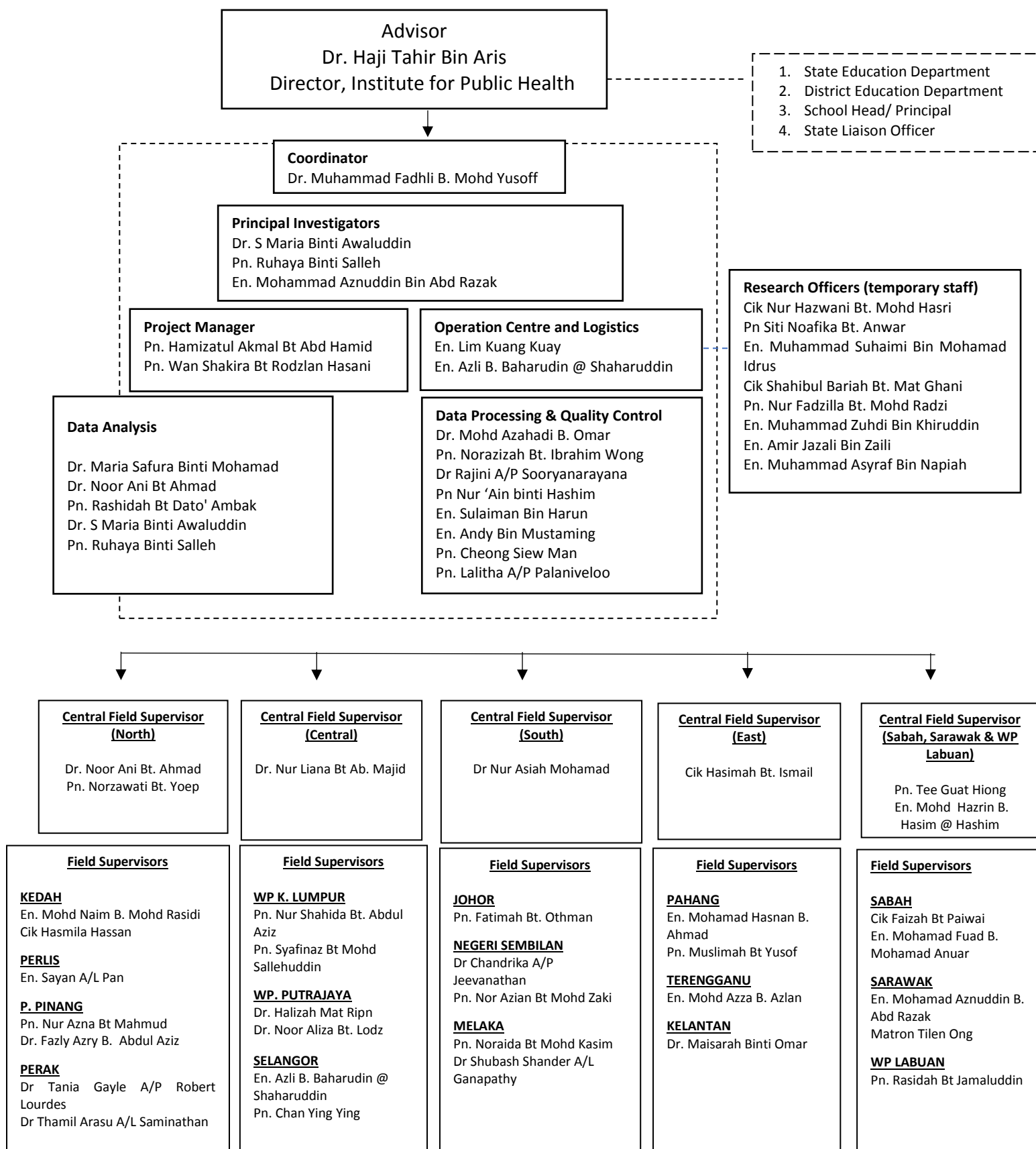


Figure 1: Organisation chart for data collection teams NHMS 2017

2.0 Methodology

Methodology and Sampling Design

Three main scopes of research were incorporated in the survey, namely the Adolescent Nutrition Survey (ANS), Habitual food intake and Dietary Intake.

2.1 Target Population

Generally, the Adolescent Nutrition Survey 2017 was conducted at all 16 states including three federal territories in Malaysia. This school-based survey was a cross-sectional study involving school-going adolescents aged 10 to 17 years old attending public and private schools.

2.2 Sampling Frame

The sampling frame in this survey was a list of primary and secondary schools from the Ministry of Education. Students' enrolment data of 2016 from Standard 4 until Standard 6 (primary school) and Form 1 until Form 5 (secondary school) were used. There were 7926 primary schools and 2688 secondary schools in 2016. Both public and private schools were included in the sampling frame.

2.3 Sample Size Determination

Sample size was calculated using a single proportion formula for estimation of prevalence.

$$n_{SRS} \geq \frac{Z^2_{\alpha/2} (p)(1-p)}{e^2}$$

The sample size calculation was based on a few criteria as below:

1. Variance of proportion of the variable of interest (Based on Malaysia School-Based Nutrition Survey 2012)
2. Margin of error (e) (Between 0.01 to 0.05)
3. Confidence Interval of 95%

To ensure optimum sample size, a few adjustments were made as follows:

1. Adjusted $n(srs)$ for the total number of target population (N) (based on the population size for schoolchildren in 2016)

$$n \geq \frac{n_{SRS}}{1 + \frac{n_{SRS}}{N}}$$

2. Adjusted for the design effect (deff) (based on previous survey: MSNS 2012), $n(\text{complex}) = n * \text{deff}$
3. Adjusted the $n(\text{complex})$ taking into account expected non-response rate of 25%, $n(\text{adj}) = n(\text{complex}) * (1 + \text{non-response rate})$

4. The sample size was then adjusted according to the need of the analysis, whether the estimate was going to be done at the national or the state level.

Based on the requirements for the objectives and abovementioned considerations, the optimum sample size required was 30,496 respondents for secondary schools and 14,000 respondents for primary schools (**Table 2.1**).

Table 2.1: Distribution of Secondary and Primary Schools Sampled by State, NHMS 2017

No.	State	Secondary			Primary		
		Total Number of Schools	Number of Schools Sampled	Number of students sampled	Total Number of Schools	Number of Schools Sampled	Number of students sampled
1	Johor	306	14	1906	921	6	875
2	Kedah	219	14	1906	552	6	875
3	Kelantan	193	14	1906	423	6	875
4	Melaka	87	14	1906	236	6	875
5	Negeri Sembilan	139	14	1906	352	6	875
6	Pahang	209	14	1906	543	6	875
7	Pulau Pinang	141	14	1906	275	6	875
8	Perak	275	14	1906	852	6	875
9	Perlis	33	14	1906	73	6	875
10	Selangor	345	14	1906	727	6	875
11	Terengganu	162	14	1906	354	6	875
12	Sabah	246	14	1906	1,090	8	875
13	Sarawak	220	14	1906	1,274	7	875
14	WP Kuala Lumpur	133	14	1906	227	6	875
15	WP Labuan	19	8	1906	12	6	875
16	WP Putrajaya	11	8	1906	14	6	875
Total		2,738	212	30,496	7,925	99	14,000

2.4 Sampling Design

This survey implemented a multistage stratified cluster sampling design to ensure nationally representative sample of Standard 4 to 6 (10-12 years of age) and Form 1 to 5 (13-17 years of age). Malaysia was stratified into 16 states (including Federal Territory of Kuala Lumpur, Putrajaya and Labuan). The first stage of sampling involved a random selection of school from list of eligible schools provided by Ministry of Education. Schools were selected randomly with probability proportional to school enrolment size. A total of 311 schools were selected to participate in this survey. The second stage of sampling was selection of classes. All classes in each selected school were included in the sampling frame. Systematic random sampling was

used to select classes from each selected school. All students in the selected classes were eligible to participate in the survey. The third stage of sampling was applied for Habitual food intake module and Dietary Intake. Students were selected randomly from each selected class.

2.5 Ethical Approval

This study was approved by the Ministry of Health, Research and Ethics Committee and Ministry of Education Ethics Committee. Approval was also obtained from the relevant Ministry of Education officials at the state and district levels including the selected school itself. Prior to the survey, several meetings with the relevant Ministry of Education officers and person in-charge at the selected school were carried out. Consent form were obtained from parents and the students.

2.6 Data Collection

A total 36 teams were set up, 4 teams for Sabah and Sarawak and the remaining states 2 teams per state. They consist of a field supervisor, research assistants and a driver. The field supervisor was a permanent staff in Ministry of Health.

An initial data collection by the core team members was initiated to observe the flow of data collection on 06 March 2017. The data collection training was conducted for Peninsular in Kuala Lumpur and Sabah, Sarawak and WP Labuan in Kuching, Sarawak simultaneously. Data collection was conducted from 26 March to 03 May 2017.

2.7 Data Management

Quality check on data was conducted throughout the survey based on specific identification (ID) numbers; from the state ID until individual student ID (generated for the study). Upon completing the survey, each student placed his / her answer sheet in an envelope. All answer sheets from the same school were wrapped together to make a bundle. These bundles were collected by assigned drivers for schools in Peninsular Malaysia or using tracked postage for schools in Sabah, Sarawak and WP Labuan.

2.7.1 Data Operation Centre

An operation centre with several stations was set up to receive data “bundles” from the field:

Station 1: Respondent ID checking

Station 2: Scanning

Station 3: Verification

Station 4: Storage

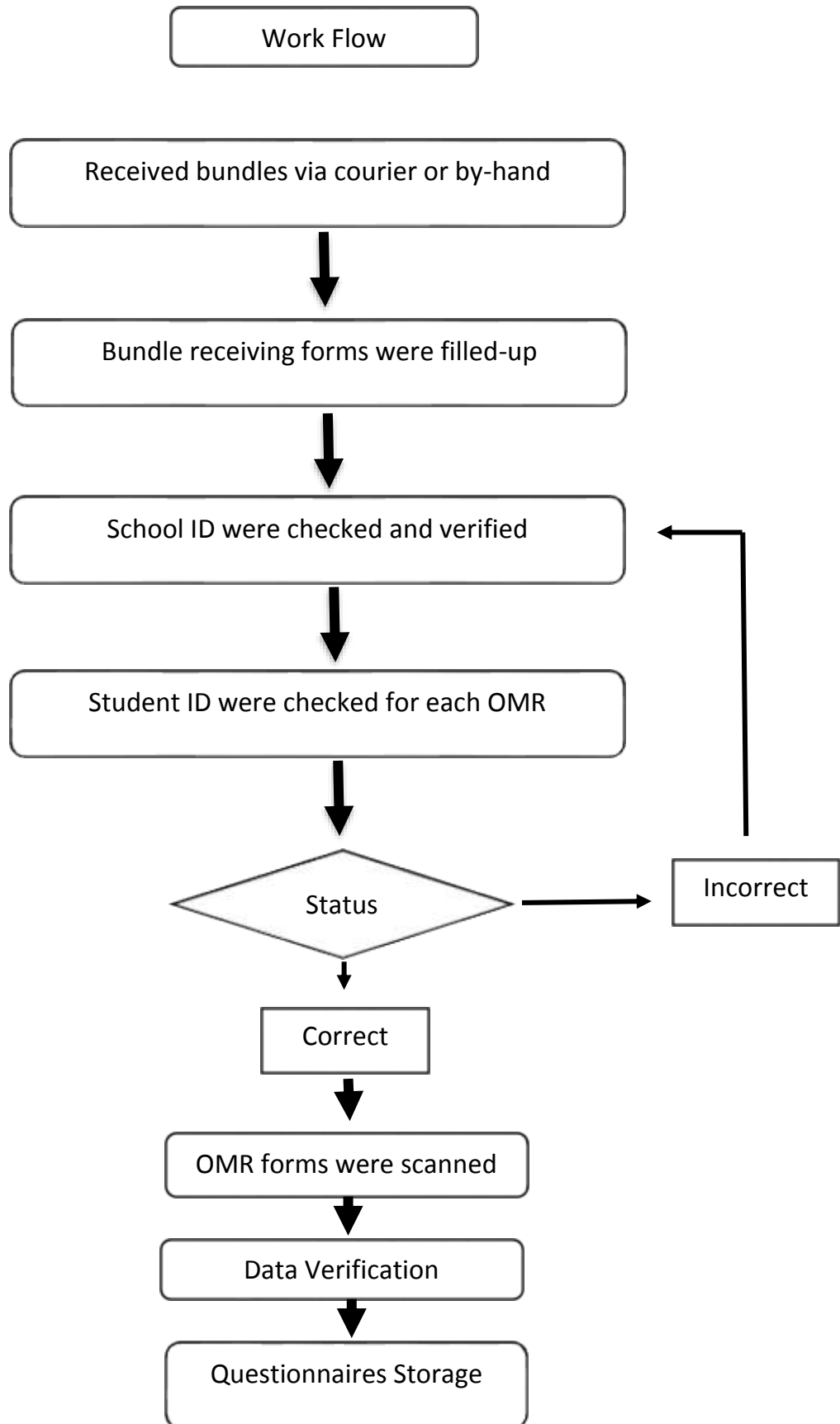


Figure 2: Work Flow of NHMS 2017

2.7.2 Data Analysis

The data set was checked, cleaned and edited for inconsistencies. Data analysis was done using SPSS version 21 by importing the raw dataset which normally in CSV form or excel. The analysis was done according to the objectives, and dummy tables prepared. Complex samples analysis procedures were used in the analysis and was carried out at 95% confidence interval. Finally, the data is representative of all students attending school from Standard 4 to Form 5 in Malaysia.

A weighting factor was applied to each student record to adjust the varying probabilities of selection and for the non-response. The weight used for estimation is given by:

$$W = W1 \times W2 \times W3 \times F \times PS$$

Where;

W1 = the inverse of the probability of selecting the school

W2 = the inverse of the probability of selecting the class within the school

W3 = the inverse of the probability of selecting the student within the class

F = the inverse of a school, class and student level non-response adjustment factor

PS = a post stratification adjustment factor calculated by class and gender

2.8 Survey Instruments

Validated self-administered questionnaires with computer-scanned answer sheets were used. Students' privacy was ensured as the answer sheet were anonymous. The majority of the students completed the survey within two class periods.

The ANS questionnaire contained sub topic which is nutritional status, body weight perception, meal pattern, physical activity level, Vitamin/Mineral and Food Supplement and Food and Nutrition Labelling.

3.0 Findings

3.1 General Findings

A total of 40,087 questionnaires for adolescent nutrition survey were completed by the respondents. The school and class response rate was 100% respectively, while the student response rate for adolescent nutrition survey was 89.5%. Overall, the response rate was 89.5% (**Table 3.1.1**).

Table 3.1.1: Response Rate at Student Level for Adolescent Nutrition Survey by State, NHMS 2017

State	Selected School	Eligible Student	Interviewed Student	Response Rate (%)
Malaysia	311	44,773	40,087	89.5
Johor	20	2,829	2,565	90.7
Kedah	20	2,790	2,490	89.2
Kelantan	20	2,776	2,464	88.8
Melaka	20	2,862	2,685	93.8
Negeri Sembilan	20	2,823	2,431	86.1
Pahang	20	2,822	2,563	90.8
Pulau Pinang	20	2,846	2,547	89.5
Perak	20	2,832	2,527	89.2
Perlis	20	2,869	2,496	87.0
Selangor	20	2,721	2,503	92.0
Terengganu	20	2,738	2,437	89.0
Sabah	22	2,855	2,437	85.4
Sarawak	21	2,791	2,534	90.8
WP Kuala Lumpur	20	2,699	2,410	89.3
WP Labuan	14	2,789	2,525	90.5
WP Putrajaya	14	2,731	2,473	90.6

Comparison of total estimated population (weighted) with the national school enrolment is shown in **Table 3.1.2** Geographic information system (GIS) on the mapping of selected primary and secondary schools is shown in **Figure 3**.

Table 3.1.2: Comparison between NHMS 2017 respondents and national enrolment of school students in Malaysia 2017

	NHMS 2017			School Enrolment 2017	
	n	Estimated Enrolment (weighted)	Prevalence (%)	Total Enrolment	Prevalence (%)
MALAYSIA	40087	3,480,500	100	3,480,439	100
State					
Johor	2565	439,369	12.6	439,406	12.6
Kedah	2490	250,426	7.2	250,388	7.2
Kelantan	2464	207,201	6	207,206	6
Melaka	2685	106,254	3.1	106,253	3.1
Negeri Sembilan	2431	139,235	4	139,242	4
Pahang	2563	174,713	5	174,721	5
Pulau Pinang	2547	178,446	5.1	178,453	5.1
Perak	2527	281,354	8.1	281,352	8.1
Perlis	2496	38,004	1.1	37,999	1.1
Selangor	2503	651,976	18.7	651,925	18.7
Terengganu	2437	158,658	4.6	158,645	4.6
Sabah	2437	331,295	9.5	331,298	9.5
Sarawak	2534	321,046	9.2	321,063	9.2
WP Kuala Lumpur	2410	177,937	5.1	177,902	5.1
WP Labuan	2525	9,604	0.3	9,602	0.3
WP Putrajaya	2473	14,982	0.4	14,984	0.4
Sex					
Male	19677	1,746,339	50.2	1,746,326	50.2
Female	20410	1,734,161	49.8	1,734,113	49.8
Form					
Standard 4	4617	448,352	12.9	448,329	12.9
Standard 5	4205	442,371	12.7	442,339	12.7
Standard 6	3777	443,262	12.7	443,262	12.7
Form 1	5702	450,996	13	451,024	13
Form 2	5499	426,921	12.3	426,908	12.3
Form 3	5834	431,004	12.4	431,043	12.4
Form 4	5536	414,703	11.9	414,653	11.9
Form 5	4917	422,891	12.2	422,881	12.2

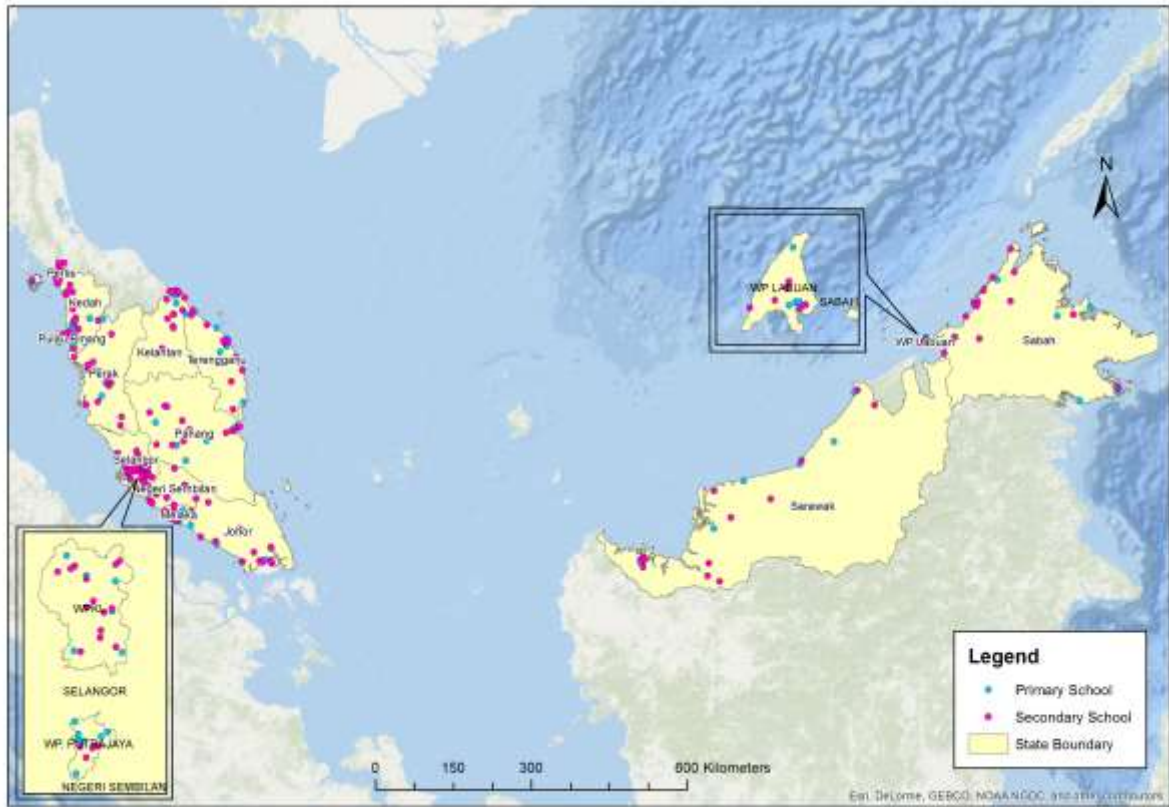


Figure 3: GIS mapping of the selected primary and secondary schools in Malaysia 2017

3.2 Nutritional status among adolescents (Primary 4 to Secondary 5) in WP Putrajaya

Contributors: Azli Baharudin, Junidah Raib, Chan Ying Ying, Poh Bee Koon, Tan Beng Chin, Suhaidi Sudin, Mohamad Hasnan Ahmad

3.2.1 Introduction

Good nutritional status contributes to healthy development of children. Anthropometric measurements are part of nutritional status components to assess body size and composition; and reflect adequate, inadequate or excessive food intake. It is also a reflection of individual activity level and disease state. Nutritional deprivation and excess may coexist, not only within household or the community but also across the country. Performing simple body measurements also helps to identify individuals, families or the community for intervention, which could improve not only nutritional status but also their health as a whole.

3.2.2 Objectives

General objective:

To determine the nutritional status of adolescents (Primary 4 to Secondary 5).

Specific objective:

To determine the prevalence of stunting, thinness, normal weight, overweight and obesity among adolescents (Primary 4 to Secondary 5) in W.P Putrajaya according to socio-demographic characteristics.

3.2.3 Variable definition

The nutritional status of adolescents was identified based on the World Health Organization Growth Reference 2007 (WHO 2007)¹. The major indices referred to were:

- a. Height-for-Age z-score (for adolescents between (Primary 4 to Secondary 5), and
- b. BMI-for-Age z-score (for adolescents between Primary 4 to Secondary 5)

3.2.4 Findings

3.2.4.1 Height-for-Age z-score

The finding of the survey showed that 94.0% (95% CI: 93.07, 94.83) of the adolescents had normal height-for-age status (HAZ: $\geq -2SD$ to $< +2SD$). The prevalence was higher than national level [91.8% (95% CI: 91.19, 92.29)]. Comparing between sexes, girls had much higher percentage of total stunting [6.7% (95% CI: 4.83, 9.26)] compared to boys [5.4% (95% CI: 4.03, 7.10)]. In term of class category, there was not much difference in prevalence of stunting between primary level [5.9% (95% CI: 4.64, 7.43)] and secondary level [6.1% (95% CI: 5.04, 7.30)].

3.2.4.2 BMI-for-Age z-score

In terms of BMI-for-age status, the findings showed that 61.5% (95% CI: 59.23, 63.76) of the population was in the normal range ($\geq -2SD$ to $< +1SD$). The prevalence was lower than national level [62.9% (95% CI: 61.84, 64.02)]. Comparing between sexes, there was not much difference of prevalence between boys [6.4% (95% CI: 4.42, 9.23)] and girls [6.0% (95% CI: 4.32, 8.22)]. In term of class category, primary level showed higher prevalence of thinness [7.1% (95% CI: 4.99, 10.02)] compared to secondary level 5.5% (95% CI: 4.04, 7.49)].

On the other hand, the prevalence of overweight in WP Putrajaya (BMI-for-age: $> +1SD$ to $\leq +2SD$) was 16.8% (95% CI: 15.41, 18.23). The state prevalence was higher than national prevalence [15.6% (95% CI: 15.06, 16.19)]. In term of sexes, girls had higher prevalence of overweight [18.1% (95% CI: 16.60, 19.74)] than boys [15.6% (95% CI: 13.32, 18.21)]. According to class category, primary level showed higher prevalence of overweight [17.5% (95% CI: 15.92, 19.20)] than secondary level [16.2% (95% CI: 14.25, 18.38)].

For the prevalence of obesity (BMI-for-age: $> +2SD$), the state prevalence was 15.5% (95% CI: 13.80, 17.35), much higher than the national prevalence [14.8 (95% CI: 14.00, 15.73)]. Comparing between sexes, boys had higher prevalence of obesity [18.1% (95% CI: 15.53, 21.11)] than girls [12.4% (95% CI: 10.66, 14.47)]. In terms of class category, primary level had much higher prevalence of obesity [16.9% (95% CI: 14.04, 20.22)] compared to secondary level [14.4% (95% CI: 13.07, 15.80)].

3.2.5 Conclusion

The prevalence of stunting among adolescents aged 10 to 17 years in WP Putrajaya was 6.0%. On the other hand, the prevalence of overweight and obesity among this population were 16.8% and 15.5% respectively. In contrast, 6.2% of the population was found to be thinness. Higher intake of energy and nutrient are very important for physical growth and development at this age. However, the concept of healthy eating and living should be practised at younger age to ensure healthy physical and mental development. As a consequence, it is hoped to reduce the prevalence of stunted, thinness, overweight and obesity

3.2.6 Recommendation

Thinness, overweight and obesity are still posing as a problem to be addressed for adolescents aged 10 to 17 years in Sabah. Various agencies have to take the initiative to set up plan of action to overcome this problem. Healthy eating and living concept should be carried out at an earlier stage. It can be implemented by developing pro-health policies and regulations to create health promoting environment in work places, schools, public areas and even at home.

One of the suggested initiative stems from collaboration between Ministry of Health and Ministry of Education is to empower Parental and Teacher Association to disseminate and

implement healthy eating programs direct in the schools. Through this initiative, the concept of healthy eating and living can be thought to the children during schooling time and it can be further practised at home and in their daily life. Eventually, it hopes to reduce the prevalence of thinness, overweight and obesity in the country.

References

1. World Health Organization, & World Health Organization. (2007). Growth reference data for 5-19 years. Geneva: WHO.
2. WHO Child Growth Standards: Methods and development: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age, World Health Organization, Switzerland, 2006

Table 3.2.1: Distribution of adolescents according to Height-For-Age (HAZ) Z-score by sociodemographic characteristics

Characteristic	Stunting (<-2SD)					Normal (≥-2SD)				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	145	897	6.0	5.17	6.93	2327	14080	94.0	93.07	94.83
Locality of School										
Urban	145	897	6.0	5.17	6.93	2327	14080	94.0	93.07	94.83
Rural										
Sex										
Boys	73	429	5.4	4.03	7.10	1257	7582	94.6	92.90	95.97
Girls	72	468	6.7	4.83	9.26	1070	6498	93.3	90.74	95.17
Class										
Standard 4	20	120	4.9	3.79	6.44	374	2296	95.1	93.56	96.21
Standard 5	22	198	9.0	5.65	14.05	222	2004	91.0	85.95	94.35
Standard 6	7	71	3.6	1.63	7.57	167	1917	96.4	92.43	98.37
Form 1	21	83	4.3	2.90	6.23	468	1864	95.7	93.77	97.10
Form 2	29	131	7.4	4.88	11.15	368	1629	92.6	88.85	95.12
Form 3	15	91	5.3	4.36	6.54	265	1617	94.7	93.46	95.64
Form 4	13	63	4.3	2.47	7.34	284	1404	95.7	92.66	97.53
Form 5	18	140	9.4	6.67	13.17	179	1349	90.6	86.83	93.33
Class Category										
Primary Level	49	388	5.9	4.64	7.43	763	6217	94.1	92.57	95.36
Secondary Level	96	509	6.1	5.04	7.30	1564	7863	93.9	92.70	94.96
Ethnicity										
Malay	141	877	6.0	5.18	6.88	2279	13799	94.0	93.12	94.82
Chinese						6	40	100.0	0.00	100.00
Indian	3	16	16.6	5.51	40.38	15	81	83.4	59.62	94.49
Bumiputera Sabah	1	4	6.0	0.77	34.51	11	62	94.0	65.49	99.23
Bumiputera Sarawak						11	66	100.0	0.00	100.00
Others						5	31	100.0	100.00	100.00

Table 3.2.2: Distribution of adolescents according to BMI-For-Age status by sociodemographic characteristics (Cont.)

Characteristic	Thinness (<-2SD)					Normal BMI (≥ -2SD to ≤ +1SD)				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	154	930	6.2	4.85	7.92	1535	9208	61.5	59.23	63.76
Locality of School										
Urban	154	930	6.2	4.85	7.92	1535	9208	61.5	59.23	63.76
Rural										
Sex										
Boys	90	513	6.4	4.42	9.23	810	4787	59.8	56.25	63.30
Girls	64	416	6.0	4.32	8.22	725	4421	63.5	60.67	66.17
Class										
Standard 4	37	220	9.1	6.87	12.00	244	1513	62.6	57.51	67.49
Standard 5	16	147	6.7	4.48	9.80	134	1205	54.7	47.19	62.05
Standard 6	10	101	5.1	2.94	8.76	101	1138	57.7	49.08	65.78
Form 1	26	103	5.3	3.41	8.16	302	1205	61.9	58.07	65.53
Form 2	23	102	5.8	3.42	9.65	246	1093	62.0	54.95	68.52
Form 3	17	101	5.9	3.46	10.00	181	1106	64.7	57.24	71.58
Form 4	12	60	4.1	2.72	6.15	203	1008	68.7	62.03	74.61
Form 5	13	95	6.4	4.11	9.70	124	940	63.2	56.96	68.94
Class Category										
Primary Level	63	468	7.1	4.99	10.02	479	3856	58.5	57.05	59.93
Secondary Level	91	462	5.5	4.04	7.49	1056	5352	63.9	61.37	66.35
Ethnicity										
Malay	150	911	6.2	4.82	7.96	1506	9047	61.7	59.43	63.89
Chinese						6	40	100.0	0.00	100.00
Indian	1	4	4.1	0.42	30.02	8	38	39.1	13.16	73.07
Bumiputera Sabah	1	5	6.8	0.64	45.14	7	35	53.4	18.57	85.18
Bumiputera Sarawak	1	4	5.5	0.54	38.29	6	37	55.3	23.96	82.93
Others	1	7	22.2	2.04	79.68	2	12	36.9	4.19	88.64

Table 3.2.2: Distribution of adolescents according to BMI-For-Age status by sociodemographic characteristics

Characteristic	Overweight (> +1SD to ≤ +2SD)					Obese (> +2SD)				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	408	2511	16.8	15.41	18.23	375	2319	15.5	13.80	17.35
Locality of School										
Urban	408	2511	16.8	15.41	18.23	375	2319	15.5	13.80	17.35
Rural										
Sex										
Boys	196	1249	15.6	13.32	18.21	234	1452	18.1	15.53	21.11
Girls	212	1262	18.1	16.60	19.74	141	867	12.4	10.66	14.47
Class										
Standard 4	59	355	14.7	11.03	19.32	54	327	13.5	10.80	16.86
Standard 5	39	356	16.2	12.86	20.10	55	495	22.5	18.16	27.43
Standard 6	38	442	22.4	16.89	29.11	24	292	14.8	10.10	21.22
Form 1	73	292	15.0	12.48	17.95	88	347	17.8	14.60	21.55
Form 2	78	342	19.4	14.30	25.75	51	227	12.8	10.50	15.62
Form 3	47	289	16.9	12.67	22.16	35	212	12.4	8.78	17.30
Form 4	47	227	15.5	11.64	20.29	35	172	11.8	8.62	15.83
Form 5	27	207	13.9	10.39	18.43	33	247	16.6	11.99	22.43
Class Category										
Primary Level	136	1153	17.5	15.92	19.20	133	1114	16.9	14.04	20.22
Secondary Level	272	1358	16.2	14.25	18.38	242	1205	14.4	13.07	15.80
Ethnicity										
Malay	396	2430	16.6	15.27	17.96	368	2279	15.5	13.85	17.39
Chinese										
Indian	5	29	30.0	11.88	57.55	4	26	26.9	5.95	68.13
Bumiputera Sabah	3	23	34.4	7.58	77.10	1	4	5.4	0.64	33.44
Bumiputera Sarawak	3	21	32.4	8.64	70.78	1	5	6.9	0.80	40.10
Others	1	7	22.8	2.10	80.23	1	6	18.1	1.60	75.02

3.3 Perception on body weight management Adolescent (Primary 4 To Secondary 5) In WP Putrajaya

Contributors: Nur Shahida Abdul Aziz, Safiah Md.Yusof, Rohana Yaakof, Ruby Zainureen, Noor Ani Ahmad, Norlida Zulkafly, Rashidah Ambak

3.3.1 Introduction

Body weight perception refers to the personal evaluation of one's weight as "underweight" or "normal weight" or "overweight" irrespective of actual body mass index. Adolescent estimation of weight status may reflect an adolescent's perception of where they are on the spectrum of body weight relative to their peers.

3.3.2 Objective

General objective:

To assess self-perception on body weight and intentions on weight management among Malaysian adolescents aged 10 to 17 years

Specific Objectives

- I. To determine body weight perception among adolescents
- II. To determine body weight perception among adolescents in comparison to actual BMI- for-age status
- III. To describe intended action on their perceived body weight status
- IV. To describe motivating factors to change their body weight.
- V. To identify preferred options to change their body weight.

3.3.3 Variable definition

- **Body weight perception:** An interpretation or impression; an opinion or belief
- (Ref: Collins English Dictionary – Complete and Unabridged, 12th Edition 2014 © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003, 2006, 2007, 2009, 2011, 2014)
- **Actual body weight:** Body weight that was measured during the survey.
- **Misperception:** - a wrong perception

(Ref: (Collins English Dictionary – Complete and Unabridged, 12th Edition 2014 © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003, 2006, 2007, 2009, 2011, 2014)

3.3.4 Findings

Results shows, 40.9% (95%CI:37.93,44.03) of the adolescents in Putrajaya perceived that they have normal weight. Boys had a higher perception of being normal weight at 41.2% (95%CI: 37.81, 44.72) compared to girls at 40.6% (95%CI: 34.96, 46.56). However, girls had a higher perception of being overweight at 34.4% (95%CI: 26.39, 43.35), compared to boys at 21.6% (95%CI: 16.34, 27.92) (**Table 3.3.1**)

Among the actual normal, 50.2% (95% CI: 48.24, 52.23) correctly perceived their weight to be normal, 31.5% (95% CI: 26.56, 36.81) underestimated their body weight perceived to be thin while 17.0% (95% CI: 12.38, 23.00) and 1.3% (95% CI: 0.66,2.44) were overestimated to be overweight and obese respectively. However among the actual overweights, 46.9% (95% CI: 34.29,59.88) correctly perceived their weight to be overweight but 14.2% (95% CI: 8.86, 21.84) and 35.7% (95% CI: 26.32, 46.38) underestimated their body weight to be thin or normal respectively (**Table 3.3.2**).

Among all the adolescents who correctly perceived thin and have actual thin body weight, 62.7% (95% CI: 48.34,75.09) reported they wanted to increase their weight while among the adolescents who perceived normal and have actual normal body weight, 29.3% (95% CI: 24.14,35.10) of them have no plan to change their weight. There were no significant difference in school category and sex among adolescents who correctly perceived thin and overweight between four categories of action taken. However there was significant difference in sex among adolescents who correctly perceived normal, where more boys (15.9% : 95%CI: 11.39, 21.76) than girls (3.5%:95% CI: 2.34, 5.33) wanted to increase their body weight (**Table 3.3.3**).

However, among the adolescents whom make a wrong perception; perceived thin but actually in overweight and obese categories, most of them 64.4% (95%CI:56.51,71.53) wanted to lose weight while 19.6% (95%CI:11.61,31.04) wanted to increase their weight (**Table 3.3.4**).

About 67.1% (95% CI: 60.42, 73.18) of adolescents choose health purpose as the main factor that motivates them to lose weight followed by increase in self-confidence (23.3%:95% CI: 17.92,29.67). There was no significant difference between boys and girls who choose health purpose as main factor to motivate them to reduce body weight, 69.0% (95% CI: 61.66,75.51) and 65.4% (95% CI: 55.43,74.11) respectively (**Table 3.3.5**).

In addition, main factor to motivate adolescents to increase body weight was also health purpose with 62.4% (95% CI: 57.56,67.03), followed by increase in self-confidence with 23.4% (95% CI: 19.22,28.09). There was significant difference among sex where girls were more prone to choose health as a main factor than boys, 76.8% (95% CI: 65.06, 85.41) and 56.8% (95% CI: 49.85, 63.48) respectively (**Table 3.3.6**).

Exercise was the highest option preferred by adolescent to loose body weight, 61.5% (95% CI: 55.27,67.37). Boys, 68.1% (95% CI: 64.19, 71.77)and primary scholars with 69.1% (95% CI:

67.33, 70.79) had higher percentage of those who choose exercise as their option to lose body weight (**Table 3.3.7**).

Increase quantity of food was the highest option preferred by adolescents to increase their body weight, 52.7% (95%: 45.06, 60.13). Girls with 56.2% (95% CI: 47.23, 64.78) and secondary scholars, 59.2% (95%: 49.84, 67.90) scored the highest in choosing increase quantity of food as a preferred option to increase body weight (**Table 3.3.8**).

3.3.5 Discussion/Conclusion

Perception of being normal weight among adolescents in Wilayah Persekutuan Putrajaya was lower than the national prevalence of 40.9 % and 41.4% respectively.

Among the actual thin adolescent in Wilayah Persekutuan Putrajaya,72.1% was correctly perceived thin and higher compared with the national prevalence of 69.9 %. Prevalence of adolescents with actual normal body weight who correctly perceived their weight to be normal is similar with national prevalence of 50.2%. In Wilayah Persekutuan Putrajaya , the trend of main factors to lose body weight among adolescent are similar with the national trend. Health purpose (68.0%) scored the highest as main factor to lose body weight, followed by to increase self confidence (21.7%) , beauty purpose (8.1%) and to have more friends (2.1%) .

Health purpose (67.1 %) scored the highest percentage as main factor to increase body weight . This percentage was higher compared with national prevalence. This is followed by to increase self confidence (23.3%) , beauty purpose (7.5%) and to have more friends (2.1%).

Adolescents choose to exercise as the preferred option to lose weight (61.5%). However this was slightly lower compared with the national prevalence of 62.5%.This was followed by reduce consumption of high fat foods with 20.0%, increase intake of fruits and vegetables (6.8 %) and reduce intake of high sugar foods (3.9%). This trend is similar with the national prevalence trend..

52.7% of the adolescents in WP Putrajaya choose to increase quantity of food as the preferred option to increase body weight and this was nearly similar with the national prevalence of 52.4%.

3.3.6 Recommendation

Body weight perception is a rather complex concept affected by `ideal` as well as `normative` body image. Our adolescents live in a society where increasingly larger proportions of the populations are overweight and obese. They are surrounded by overweight and obese peers, hence leading to them developing an inaccurate perception of healthy body weight or image. On the other hand, mass media often portray unusually thin models, especially among females, emphasizing `thin` rather than `healthy` body shapes.

Findings from this study should be utilised by relevant programme managers. Intervention to promote healthy lifestyles should be one of the approaches undertaken to halt this problem from worsening. Nutrition education should be systematically conducted in all school, utilizing educational modules. Parents should act as role models and be actively involved in all efforts to promote healthy eating and active living among children. The medias should also play important roles, by broadcasting more information to adolescent and families about healthy eating and active lifestyles.

In addition, a school- based health promotion programme incorporating a holistic curriculum may prove to be a good platform to tackle body image problems, encourage good eating habits and instil a healthy body image amongst adolescents.

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Table 3.3.1 : Body weight perception among adolescents by socio-demographic characteristics (Cont.)

Characteristics	Perceived thin					Perceived Normal				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	696	4271	28.5	24.31	33.12	997	6134	40.9	37.93	44.03
Locality of School										
Urban	696	4271	28.5	24.31	33.12	997	6134	40.9	37.93	44.03
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	469	2805	35.0	29.42	41.02	551	3304	41.2	37.81	44.72
Girls	227	1466	21.0	16.53	26.40	446	2830	40.6	34.96	46.56
School Category										
Primary	296	2284	34.6	33.34	35.83	367	3006	45.5	42.33	48.72
Secondary	400	1988	23.7	19.19	28.95	630	3128	37.3	34.96	39.80
Class										
Standard 4	162	971	40.2	36.64	43.90	181	1124	46.5	43.30	49.81
Standard 5	95	862	39.1	28.98	50.28	98	874	39.7	31.31	48.74
Standard 6	39	451	22.7	19.62	26.08	88	1007	50.7	45.77	55.58
Form 1	121	474	24.4	19.65	29.78	203	809	41.6	36.88	46.41
Form 2	102	446	25.3	18.98	32.80	160	710	40.3	35.12	45.61
Form 3	67	397	23.3	16.95	31.05	101	616	36.1	32.97	39.31
Form 4	61	307	20.9	17.52	24.72	108	545	37.2	31.20	43.54
Form 5	49	363	24.4	16.38	34.73	58	447	30.0	23.94	36.90
Ethnicity										
Malay	682	4194	28.6	24.32	33.24	982	6045	41.2	38.18	44.24
Chinese	2	15	36.8	11.43	72.41	2	12	29.3	4.61	78.07
Indian	3	13	13.0	5.15	29.13	3	16	16.4	5.30	40.89
Bumiputera Sabah	2	7	9.9	1.11	52.05	7	46	69.9	31.62	92.11
Bumiputera Sarawak	6	37	55.3	23.96	82.93	1	4	5.5	0.54	38.29
Others	1	7	22.2	2.04	79.68	2	12	36.9	4.19	88.64

Table 3.3.1 : Body weight perception among adolescents by socio-demographic characteristics

Characteristics	Perceived Overweight					Perceived Obese				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	702	4124	27.5	22.12	33.68	78	453	3.0	2.24	4.07
Locality of School										
Urban	702	4124	27.5	22.12	33.68	78	453	3.0	2.24	4.07
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	281	1729	21.6	16.34	27.92	30	177	2.2	1.44	3.39
Girls	421	2394	34.4	26.39	43.35	48	275	3.9	2.70	5.75
School Category										
Primary	131	1177	17.8	15.31	20.63	18	139	2.1	1.08	4.07
Secondary	571	2947	35.2	31.42	39.13	60	314	3.7	3.08	4.56
Class										
Standard 4	40	254	10.5	7.41	14.68	11	66	2.7	1.44	5.13
Standard 5	48	441	20.0	15.26	25.77	3	26	1.2	0.38	3.60
Standard 6	43	482	24.3	23.54	25.03	4	47	2.3	0.71	7.50
Form 1	149	598	30.7	26.79	34.98	16	65	3.3	1.50	7.26
Form 2	122	543	30.8	23.58	39.10	14	65	3.7	1.89	7.02
Form 3	105	651	38.1	31.47	45.24	7	43	2.5	1.49	4.31
Form 4	116	555	37.9	30.70	45.58	12	60	4.1	2.50	6.66
Form 5	79	598	40.2	34.70	45.90	11	80	5.4	2.41	11.67
Ethnicity										
Malay	681	3998	27.2	21.73	33.54	76	443	3.0	2.23	4.07
Chinese	2	14	33.9	10.29	69.60	-	-	-	-	-
Indian	11	64	65.1	44.26	81.38	1	5	5.5	1.26	20.88
Bumiputera Sabah	3	13	20.2	6.14	49.35	-	-	-	-	-
Bumiputera Sarawak	3	22	33.2	9.86	69.28	1	4	6.0	0.60	40.83
Others	2	13	40.9	6.59	87.17	-	-	-	-	-

Table 3.3.2: Body weight perception among adolescent by actual BMI for age status (Cont.)

Perceived	Actual thin															
	Thin				Normal				Overweight				Obese			
	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper
WP Putrajaya	111	72.1	60.58	81.33	38	25.5	16.18	37.85	5	2.3	0.84	6.43				
Locality of school																
Urban	111	72.1	60.58	81.33	38	25.5	16.18	37.85	5	2.3	0.84	6.43				
Rural	-	-	-	-	-	-	-	-	-	-	-	-				
Sex																
Boys	66	75.9	64.92	84.25	21	21.5	13.41	32.74	3	2.6	0.59	10.54				
Girls	45	67.5	52.70	79.44	17	30.4	18.19	46.30	2	2.1	0.47	8.70				
School Category																
Primary	42	66.1	51.05	78.50	21	33.9	21.50	48.95								
Secondary	69	78.2	61.39	89.01	17	17.1	7.46	34.43	5	4.7	2.16	10.05				

Table 3.3.2: Body weight perception among adolescent by actual BMI for age status (Cont.)

Perceived	Actual normal															
	Thin				Normal				Overweight				Obese			
	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper
WP Putrajaya	469	31.5	26.56	36.81	772	50.2	48.24	52.23	272	17.0	12.38	22.98	22	1.3	0.66	2.44
Locality of school																
Urban	469	31.5	26.56	36.81	772	50.2	48.24	52.23	272	17.0	12.38	22.98	22	1.3	0.66	2.44
Rural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sex																
Boys	318	40.1	33.84	46.77	405	49.3	44.54	54.16	80	9.8	6.72	13.97	7	0.8	0.29	2.00
Girls	151	22.1	16.98	28.16	367	51.2	46.40	55.98	192	24.9	17.64	33.93	15	1.8	0.93	3.55
School Category																
Primary	190	38.6	35.92	41.42	244	51.6	48.92	54.23	36	8.3	5.79	11.76	9	1.5	0.51	4.21
Secondary	279	26.3	21.18	32.13	528	49.3	46.59	51.94	236	23.3	19.26	27.94	13	1.1	0.51	2.45

Table 3.3.2: Body weight perception among adolescent by actual BMI for age status (Cont.)

Perceived	Actual overweight															
	Thin				Normal				Overweight				Obese			
	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper
WP Putrajaya	57	14.2	8.86	21.84	131	35.7	26.32	46.38	205	46.9	34.29	59.88	15	3.2	1.73	6.02
Locality of school																
Urban	57	14.2	8.86	21.84	131	35.7	26.32	46.38	205	46.9	34.29	59.88	15	3.2	1.73	6.02
Rural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sex																
Boys	35	17.4	9.38	29.98	79	42.2	30.37	54.94	80	39.6	23.96	57.73	2	0.8	0.21	3.10
Girls	22	10.9	6.65	17.48	52	29.3	17.10	45.54	125	54.1	38.34	69.03	13	5.6	2.59	11.88
School Category																
Primary	30	20.7	13.65	30.16	70	51.8	43.08	60.38	33	25.6	22.37	29.08	3	1.9	0.70	5.18
Secondary	27	8.6	4.15	16.87	61	22.1	18.50	26.14	172	65.0	57.48	71.79	12	4.4	2.13	8.76

Table 3.3.2: Body weight perception among adolescent by actual BMI for age status

Perceived	Actual obese															
	Thin				Normal				Overweight				Obese			
	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper	n	%	Lower	Upper
WP Putrajaya	59	15.0	9.84	22.31	56	16.1	10.46	24.03	220	58.5	49.49	66.96	40	10.3	6.74	15.55
Locality of school																
Urban	59	15.0	9.84	22.31	56	16.1	10.46	24.03	220	58.5	49.49	66.96	40	10.3	6.74	15.55
Rural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sex																
Boys	50	19.1	12.12	28.76	46	21.0	13.74	30.62	118	51.9	38.41	65.13	20	8.0	5.05	12.59
Girls	9	8.2	2.94	21.04	10	8.0	3.95	15.61	102	69.5	61.66	76.41	20	14.2	7.77	24.54
School Category																
Primary	34	22.1	15.89	29.77	32	23.4	15.89	33.13	62	50.4	37.54	63.25	5	4.1	2.25	7.32
Secondary	25	8.5	4.12	16.89	24	9.4	5.46	15.64	158	66.0	59.34	72.00	35	16.1	12.36	20.76

Table 3.3.3: Action taken according to correctly perceived body weight among adolescents (Cont.)

Characteristic	Perceived thin - actual thin									
	Lose weight					Increase weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	22	138	20.6	11.66	33.89	70	420	62.7	48.34	75.09
Locality of school										
Urban	22	138	20.6	11.66	33.89	70	420	62.7	48.34	75.09
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	16	98	25.3	12.34	44.84	39	234	60.1	41.96	75.76
Girls	6	40	14.2	6.54	28.19	31	186	66.3	53.36	77.21
School category										
Primary	15	105	34.0	22.20	48.09	20	154	49.6	31.62	67.73
Secondary	7	33	9.2	3.63	21.56	50	267	73.9	60.11	84.13

Table 3.3.3: Action taken according to correctly perceived body weight among adolescents (Cont.)

Characteristic	Perceived thin - actual thin									
	No action					Maintain body weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	15	89	13.3	7.66	22.21	4	22	3.3	1.46	7.48
Locality of school										
Urban	15	89	13.3	7.66	22.21	4	22	3.3	1.46	7.48
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	8	42	10.9	3.45	29.47	3	15	3.8	1.30	10.51
Girls	7	47	16.7	9.61	27.54	1	8	2.7	0.34	18.80
School category										
Primary	5	37	12.1	5.63	24.00	2	13	4.4	1.53	11.75
Secondary	10	52	14.4	6.57	28.79	2	9	2.5	0.73	8.09

Table 3.3.3: Action taken according to correctly perceived body weight among adolescents (Cont.)

Characteristic	Perceived normal - actual normal									
	Lose weight					Increase weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	242	1462	31.6	26.14	37.62	76	456	9.9	7.17	13.40
Locality of school										
Urban	242	1462	31.6	26.14	37.62	76	456	9.9	7.17	13.40
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	100	605	25.6	18.83	33.79	61	376	15.9	11.39	21.76
Girls	142	857	37.9	33.07	42.90	15	80	3.5	2.34	5.33
School category										
Primary	92	752	37.8	33.52	42.29	25	199	10.0	5.90	16.41
Secondary	150	710	26.9	20.41	34.60	51	257	9.8	6.56	14.27

Table 3.3.3: Action taken according to correctly perceived body weight among adolescents (Cont.)

Characteristic	Perceived normal - actual normal									
	No action					Maintain body weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	225	1357	29.3	24.14	35.10	229	1352	29.2	25.79	32.90
Locality of school										
Urban	225	1357	29.3	24.14	35.10	229	1352	29.2	25.79	32.90
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	117	663	28.1	21.49	35.76	127	719	30.4	25.04	36.40
Girls	108	693	30.6	25.11	36.76	102	633	28.0	24.10	32.19
School category										
Primary	65	517	26.0	19.58	33.60	62	522	26.2	20.76	32.54
Secondary	160	840	31.8	25.20	39.33	167	830	31.5	28.04	35.14

Table 3.3.3: Action taken according to correctly perceived body weight among adolescents (Cont.)

Characteristic	Perceived overweight - actual overweight									
	Lose weight					Increase weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	179	1028	87.3	79.26	92.57	3	17	1.4	0.45	4.48
Locality of school										
Urban	179	1028	87.3	79.26	92.57	3	17	1.4	0.45	4.48
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	66	416	84.1	74.25	90.60	3	17	3.4	1.13	9.96
Girls	113	612	89.7	79.76	95.08	-	-	-	-	-
School category										
Primary	27	252	85.6	62.21	95.52	1	5	1.6	0.20	11.39
Secondary	152	776	87.9	79.15	93.33	2	12	1.4	0.35	5.41

Table 3.3.3: Action taken according to correctly perceived body weight among adolescents

Characteristic	Perceived overweight - actual overweight									
	No action					Maintain body weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	17	98	8.4	5.11	13.39	6	34	2.9	0.77	10.02
Locality of school										
Urban	17	98	8.4	5.11	13.39	6	34	2.9	0.77	10.02
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	11	62	12.5	6.53	22.67	-	-	-	-	-
Girls	6	36	5.3	1.77	15.05	6	34	4.9	1.29	17.11
School category										
Primary	3	24	8.3	2.79	22.07	2	14	4.6	0.56	28.85
Secondary	14	74	8.4	4.83	14.19	4	20	2.3	0.43	11.12

Table 3.3.4: Action taken according to misperception of body weight among adolescents (Cont.)

Characteristic	Perceived thin -Actual overweight/obese									
	Lose weight					Increase weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	70	453	64.4	56.51	71.53	27	138	19.6	11.61	31.04
Locality of school										
Urban	70	453	64.4	56.51	71.53	27	138	19.6	11.61	31.04
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	54	331	66.9	55.28	76.72	20	105	21.2	11.85	35.12
Girls	16	123	58.5	38.79	75.78	7	33	15.6	6.74	32.04
School category										
Primary	43	338	69.8	66.03	73.37	11	73	15.1	9.07	23.96
Secondary	27	115	52.3	40.41	63.97	16	65	29.5	13.30	53.34

Table 3.3.4: Action taken according to misperception of body weight among adolescents (Cont.)

Characteristic	Perceived thin -Actual overweight/obese									
	No action					Maintain body weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	15	88	12.4	7.69	19.52	4	26	3.6	1.43	8.89
Locality of school										
Urban	15	88	12.4	7.69	19.52	4	26	3.6	1.43	8.89
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	9	50	10.1	5.48	17.82	2	9	1.8	0.37	8.27
Girls	6	38	18.0	8.27	34.87	2	17	7.9	2.13	25.43
School category										
Primary	8	57	11.7	6.41	20.36	2	17	3.4	0.96	11.56
Secondary	7	31	14.1	6.28	28.69	2	9	4.1	1.23	12.62

Table 3.3.4: Action taken according to misperception of body weight among adolescents (Cont.)

Characteristic	Actual Normal - Perceived thin/overweight/obese									
	Lose weight					Increase weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	356	2138	46.6	41.74	51.63	225	1335	29.1	22.50	36.77
Locality of school										
Urban	356	2138	46.6	41.74	51.63	225	1335	29.1	22.50	36.77
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	149	894	36.9	30.60	43.62	160	943	38.9	29.65	49.00
Girls	207	1243	57.6	50.99	64.02	65	391	18.1	13.81	23.47
School category										
Primary	112	910	48.8	39.00	58.64	69	507	27.2	16.45	41.41
Secondary	244	1227	45.2	40.86	49.59	156	827	30.5	22.87	39.29

Table 3.3.4: Action taken according to misperception of body weight among adolescents

Characteristic	Actual Normal - Perceived thin/overweight/obese									
	No action					Maintain body weight				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	115	683	14.9	11.58	18.96	67	428	9.3	7.01	12.31
Locality of school										
Urban	115	683	14.9	11.58	18.96	67	428	9.3	7.01	12.31
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	61	358	14.8	10.81	19.88	35	230	9.5	6.69	13.23
Girls	54	324	15.0	9.83	22.31	32	198	9.2	6.34	13.12
School category										
Primary	30	244	13.1	8.35	19.83	24	205	11.0	6.78	17.38
Secondary	85	439	16.2	12.16	21.18	43	222	8.2	6.17	10.77

Table 3.3.5 : Main factors that motivate to lose body weight among adolescents by socio-demographic characteristics (Cont.)

Characteristics	Health purpose					Beauty purpose				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	807	5054	67.1	60.42	73.18	98	563	7.5	5.27	10.50
Locality of school										
Urban	807	5054	67.1	60.42	73.18	98	563	7.5	5.27	10.50
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	401	2502	69.0	61.66	75.51	31	176	4.8	3.17	7.33
Girls	406	2552	65.4	55.43	74.11	67	388	9.9	6.79	14.28
School category										
Primary	325	2695	76.8	74.70	78.79	23	178	5.1	3.61	7.06
Secondary	482	2359	58.7	53.16	63.96	75	385	9.6	6.43	14.03
Class										
Standard 4	142	880	76.7	69.71	82.41	11	64	5.6	2.79	10.85
Standard 5	106	969	80.7	77.73	83.34	7	65	5.4	3.13	9.31
Standard 6	77	846	72.9	66.13	78.81	5	48	4.2	1.65	10.12
Form 1	160	636	64.7	56.62	72.01	21	85	8.7	4.69	15.54
Form 2	115	502	58.2	48.54	67.19	15	68	7.9	4.41	13.72
Form 3	77	462	58.0	47.01	68.18	13	79	9.9	4.09	22.08
Form 4	84	411	55.3	48.20	62.11	15	70	9.4	5.74	15.09
Form 5	46	348	54.9	45.75	63.69	11	83	13.0	7.01	22.99
Ethnicity										
Malay	789	4954	67.2	60.36	73.34	94	538	7.3	5.14	10.25
Chinese	-	-	-	-	-	1	6	100.0	100.00	100.00
Indian	9	48	67.7	38.40	87.55	3	19	26.7	8.04	60.35
Bumiputera Sabah	5	30	83.9	28.10	98.57	-	-	-	-	-
Bumiputera Sarawak	2	11	44.7	7.16	89.44	-	-	-	-	-
Others	2	11	59.6	16.19	91.85	-	-	-	-	-

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Table 3.3.5 : Main factors that motivate to lose body weight among adolescents by socio-demographic characteristics

	To increase self-confidence					To have more friends				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	303	1753	23.3	17.92	29.67	25	160	2.1	1.11	4.01
Locality of school										
Urban	303	1753	23.3	17.92	29.67	25	160	2.1	1.11	4.01
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	135	849	23.4	17.71	30.27	15	99	2.7	1.17	6.26
Girls	168	904	23.2	15.48	33.16	10	61	1.6	0.56	4.27
School category										
Primary	58	515	14.7	13.24	16.26	15	121	3.4	1.87	6.25
Secondary	245	1238	30.8	25.39	36.76	10	39	1.0	0.33	2.82
Class										
Standard 4	26	154	13.4	10.72	16.69	8	50	4.3	1.98	9.24
Standard 5	14	130	10.8	9.59	12.17	4	37	3.1	0.62	13.71
Standard 6	18	231	19.9	15.92	24.68	3	34	3.0	0.85	9.75
Form 1	62	247	25.1	18.71	32.90	4	15	1.5	0.52	4.13
Form 2	61	273	31.6	25.37	38.56	5	20	2.4	0.77	7.01
Form 3	41	256	32.1	24.62	40.71	-	-	-	-	-
Form 4	54	259	34.8	29.67	40.20	1	4	0.6	0.07	4.48
Form 5	27	204	32.1	21.35	45.10	-	-	-	-	-
Ethnicity										
Malay	299	1728	23.4	18.02	29.88	24	154	2.1	1.06	4.06
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	1	4	5.6	0.57	38.14	-	-	-	-	-
Bumiputera Sabah	-	-	-	-	-	1	6	16.1	1.43	71.90
Bumiputera Sarawak	2	14	55.3	10.56	92.84	-	-	-	-	-
Others	1	8	40.4	8.15	83.81	-	-	-	-	-

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Table 3.3.6 : Main factor that motivate to increase body weight among adolescents by socio-demographic characteristics (Cont.)

Characteristics	Health purpose					Beauty purpose				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	247	1482	62.4	57.56	67.03	46	244	10.3	7.50	13.93
Locality of school										
Urban	247	1482	62.4	57.56	67.03	46	244	10.3	7.50	13.93
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	162	969	56.8	49.85	63.48	35	186	10.9	7.32	15.93
Girls	85	513	76.8	65.06	85.41	11	58	8.7	4.42	16.40
School category										
Primary	83	641	65.9	61.71	69.88	12	82	8.4	5.92	11.90
Secondary	164	841	60.0	53.18	66.42	34	162	11.6	7.58	17.22
Class										
Standard 4	45	272	61.3	52.17	69.65	9	50	11.2	6.93	17.62
Standard 5	24	208	73.4	63.38	81.44	1	9	3.0	0.58	14.56
Standard 6	14	161	65.7	41.95	83.56	2	24	9.7	2.19	33.82
Form 1	49	197	60.8	51.92	69.00	11	43	13.2	8.02	20.89
Form 2	36	158	63.9	43.12	80.46	9	40	16.1	7.93	29.88
Form 3	30	183	69.0	57.45	78.61	3	17	6.3	1.92	19.01
Form 4	28	143	60.0	48.05	70.93	7	34	14.1	7.03	26.26
Form 5	21	159	48.9	32.42	65.54	4	29	8.9	4.79	15.88
Ethnicity										
Malay	241	1447	62.5	57.43	67.24	46	244	10.5	7.66	14.31
Chinese	2	14	100.0	100.00	100.00	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-	-	-
Bumiputera Sabah	1	3	41.8	2.92	94.47	-	-	-	-	-
Bumiputera Sarawak	3	17	60.8	15.62	92.87	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-

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Table 3.3.6 : Main factor that motivate to increase body weight among adolescents by socio-demographic characteristics

Characteristics	To increase self-confidence					To have more friends				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	91	555	23.4	19.22	28.09	17	94	3.9	2.72	5.69
Locality of school										
Urban	91	555	23.4	19.22	28.09	17	94	3.9	2.72	5.69
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	77	474	27.8	21.98	34.40	13	78	4.5	2.72	7.49
Girls	14	81	12.1	7.05	20.09	4	16	2.4	0.67	8.32
School category										
Primary	26	199	20.4	15.86	25.92	8	51	5.2	3.28	8.19
Secondary	65	356	25.4	19.90	31.80	9	43	3.1	1.86	5.01
Class										
Standard 4	15	89	20.0	12.31	30.89	6	33	7.5	4.99	11.10
Standard 5	6	49	17.4	6.87	37.69	2	17	6.1	1.91	18.03
Standard 6	5	60	24.6	12.57	42.58	-	-	-	-	-
Form 1	18	72	22.2	15.08	31.38	3	13	3.9	1.60	9.00
Form 2	8	36	14.7	5.62	33.31	3	13	5.4	1.23	20.53
Form 3	11	65	24.6	18.30	32.30	-	-	-	-	-
Form 4	10	52	21.8	17.03	27.38	2	10	4.1	1.03	14.93
Form 5	18	130	40.0	28.40	52.83	1	7	2.3	0.40	11.96
Ethnicity										
Malay	87	532	23.0	18.62	27.97	17	94	4.0	2.79	5.83
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	1	7	100.0	100.00	100.00	-	-	-	-	-
Bumiputera Sabah	1	5	58.2	5.53	97.08	-	-	-	-	-
Bumiputera Sarawak	2	11	39.2	7.13	84.38	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-

Table 3.3.7 : Preferred option to lose body weight among adolescents by socio-demographic characteristics (Cont.)

Characteristics	Exercise					Reduce consumption of high fat foods				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	741	4661	61.5	55.27	67.37	261	1518	20.0	15.93	24.88
Locality of school										
Urban	741	4661	61.5	55.27	67.37	261	1518	20.0	15.93	24.88
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	392	2481	68.1	64.19	71.77	95	570	15.6	12.09	20.00
Girls	349	2180	55.4	46.47	63.98	166	948	24.1	18.48	30.78
School category										
Primary	292	2433	69.1	67.33	70.79	62	532	15.1	12.08	18.72
Secondary	449	2228	54.9	47.24	62.35	199	986	24.3	19.16	30.33
Class										
Standard 4	131	807	70.3	64.84	75.17	25	152	13.2	10.25	16.93
Standard 5	91	836	69.4	55.61	80.42	22	204	17.0	9.24	29.11
Standard 6	70	790	67.6	59.38	74.88	15	175	15.0	10.45	21.09
Form 1	130	517	51.9	44.15	59.61	71	284	28.5	22.64	35.15
Form 2	114	497	57.6	48.17	66.43	45	199	23.0	17.21	30.06
Form 3	80	485	59.8	47.44	71.06	29	176	21.6	12.56	34.68
Form 4	80	389	52.2	40.95	63.26	30	145	19.5	12.59	28.98
Form 5	45	340	52.9	40.80	64.66	24	183	28.5	19.27	40.07
Ethnicity										
Malay	724	4557	61.4	55.09	67.39	256	1492	20.1	16.06	24.89
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	8	43	60.5	30.15	84.44	4	19	26.2	10.71	51.14
Bumiputera Sabah	6	41	87.6	36.48	98.85	-	-	-	-	-
Bumiputera Sarawak	2	16	65.1	16.24	94.74	-	-	-	-	-
Others	1	4	34.6	34.62	34.62	1	8	65.4	65.38	65.38

Table 3.3.7 : Preferred option to lose body weight among adolescents by socio-demographic characteristics (Cont.)

Characteristics	Reduce intake of high sugar foods					Increase intake of fruits & vegetables				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	50	296	3.9	2.75	5.54	78	513	6.8	5.02	9.08
Locality of school										
Urban	50	296	3.9	2.75	5.54	78	513	6.8	5.02	9.08
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	25	149	4.1	2.30	7.19	38	251	6.9	4.19	11.13
Girls	25	147	3.7	2.51	5.54	40	262	6.7	4.34	10.10
School category										
Primary	21	157	4.5	2.49	7.88	35	297	8.4	5.64	12.42
Secondary	29	139	3.4	2.44	4.79	43	216	5.3	4.15	6.82
Class										
Standard 4	12	71	6.2	3.67	10.13	14	88	7.7	3.08	17.90
Standard 5	6	53	4.4	1.41	13.12	8	73	6.1	3.16	11.29
Standard 6	3	33	2.8	0.77	9.95	13	136	11.6	6.57	19.69
Form 1	11	42	4.2	2.21	7.89	12	47	4.8	2.81	7.92
Form 2	5	23	2.6	1.07	6.35	7	32	3.7	1.84	7.24
Form 3	3	19	2.3	1.00	5.25	8	50	6.1	3.23	11.34
Form 4	7	33	4.4	2.02	9.40	12	59	8.0	3.82	15.80
Form 5	3	23	3.5	0.80	14.13	4	28	4.4	1.71	10.77
Ethnicity										
Malay	46	271	3.7	2.54	5.23	77	509	6.9	5.04	9.26
Chinese	1	6	100.0	100.00	100.00	-	-	-	-	-
Indian	1	10	13.4	1.26	65.11	-	-	-	-	-
Bumiputera Sabah	1	6	12.4	1.15	63.52	-	-	-	-	-
Bumiputera Sarawak	1	4	16.3	1.40	72.80	1	5	18.5	1.62	75.86
Others	-	-	-	-	-	-	-	-	-	-

Table 3.3.7 : Preferred option to lose body weight among adolescents by socio-demographic characteristics (Cont.)

Characteristics	Skip main meals					Consume dieting pills/use slimming cream				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	36	198	2.6	1.48	4.56	2	11	0.1	0.03	0.62
Locality of school										
Urban	36	198	2.6	1.48	4.56	2	11	0.1	0.03	0.62
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	10	52	1.4	0.59	3.44	1	6	0.2	0.02	1.39
Girls	26	145	3.7	2.05	6.56	1	5	0.1	0.01	1.03
School category										
Primary	4	34	1.0	0.45	2.09	1	6	0.2	0.02	1.32
Secondary	32	163	4.0	2.48	6.47	1	5	0.1	0.01	0.93
Class										
Standard 4	1	5	0.4	0.06	2.81	1	6	0.5	0.06	4.02
Standard 5	2	19	1.6	0.50	5.03	-	-	-	-	-
Standard 6	1	10	0.9	0.10	7.22	-	-	-	-	-
Form 1	8	32	3.2	2.18	4.70	-	-	-	-	-
Form 2	8	35	4.0	2.48	6.47	-	-	-	-	-
Form 3	4	25	3.1	0.79	11.60	-	-	-	-	-
Form 4	7	34	4.6	2.29	9.04	1	5	0.6	0.08	4.80
Form 5	5	37	5.7	2.06	15.00					
Ethnicity										
Malay	36	198	2.7	1.51	4.66	2	11	0.1	0.03	0.63
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-	-	-
Bumiputera Sabah	-	-	-	-	-	-	-	-	-	-
Bumiputera Sarawak	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-

Table 3.3.7 : Preferred option to lose body weight among adolescents by socio-demographic characteristics

Characteristics	Fasting					Professional advise				
	Unweighted count	Estimated population	Prevalence (%)	95% CI		Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	67	361	4.8	2.93	7.64	5	21	0.3	0.10	0.78
Locality of school										
Urban	67	361	4.8	2.93	7.64	5	21	0.3	0.10	0.78
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	22	126	3.4	1.33	8.64	2	8	0.2	0.05	1.05
Girls	45	235	6.0	3.48	10.09	3	13	0.3	0.11	0.96
School category										
Primary	7	62	1.8	1.07	2.92	-	-	-	-	-
Secondary	60	299	7.4	5.04	10.63	5	21	0.5	0.22	1.21
Class										
Standard 4	3	20	1.7	0.57	5.14	-	-	-	-	-
Standard 5	2	18	1.5	0.53	4.28	-	-	-	-	-
Standard 6	2	24	2.1	0.56	7.19	-	-	-	-	-
Form 1	15	61	6.2	3.19	11.59	3	12	1.3	0.31	4.93
Form 2	16	74	8.5	5.20	13.64	1	5	0.6	0.07	4.26
Form 3	9	57	7.0	2.60	17.35	-	-	-	-	-
Form 4	16	76	10.2	6.30	16.01	1	4	0.5	0.06	4.02
Form 5	4	32	4.9	1.78	12.85	-	-	-	-	-
Ethnicity										
Malay	67	361	4.9	3.00	7.79	5	21	0.3	0.10	0.79
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-	-	-
Bumiputera Sabah	-	-	-	-	-	-	-	-	-	-
Bumiputera Sarawak	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-

Table 3.3.8 : Preferred option to increase body weight among adolescents by socio-demographic characteristics (Cont..)

Characteristics	Increase quantity of food					Taking supplement				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	213	1278	52.7	45.06	60.13	96	591	24.3	19.13	30.45
Locality of school										
Urban	213	1278	52.7	45.06	60.13	96	591	24.3	19.13	30.45
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	149	898	51.3	42.15	60.34	66	404	23.1	17.82	29.41
Girls	64	380	56.2	47.23	64.78	30	186	27.5	19.52	37.35
School category										
Primary	55	427	43.2	37.77	48.74	40	318	32.2	25.38	39.83
Secondary	158	851	59.2	49.84	67.90	56	273	19.0	14.32	24.67
Class										
Standard 4	29	169	36.9	25.75	49.76	23	140	30.6	22.36	40.31
Standard 5	16	140	49.8	37.17	62.41	7	60	21.2	9.34	41.15
Standard 6	10	118	47.1	32.90	61.79	10	119	47.5	32.98	62.39
Form 1	34	138	41.7	27.52	57.49	20	79	24.0	16.76	33.15
Form 2	31	138	52.7	38.91	66.10	14	61	23.5	12.68	39.47
Form 3	32	196	68.1	48.14	83.03	6	37	12.7	7.60	20.39
Form 4	30	153	65.5	50.78	77.77	10	51	21.7	12.10	35.75
Form 5	31	227	69.6	53.07	82.29	6	45	13.8	8.82	20.97
Ethnicity										
Malay	208	1252	52.6	44.93	60.21	96	591	24.8	19.60	30.94
Chinese	2	14	100.0	100.00	100.00	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-	-	-
Bumiputera Sabah	1	3	41.8	2.92	94.47	-	-	-	-	-
Bumiputera Sarawak	2	8	44.8	7.73	88.69	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-

Table 3.3.8 : Preferred option to increase body weight among adolescents by socio-demographic characteristics

Characteristics	Take high calorie foods					Others				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	58	314	13.0	9.18	17.97	44	244	10.0	6.72	14.74
Locality of school										
Urban	58	314	13.0	9.18	17.97	44	244	10.0	6.72	14.74
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	45	249	14.2	9.94	19.90	36	200	11.4	6.98	18.07
Girls	13	66	9.7	4.05	21.59	8	44	6.5	3.52	11.76
School category										
Primary	18	112	11.4	5.56	21.87	18	131	13.3	8.78	19.56
Secondary	40	202	14.0	9.92	19.49	26	112	7.8	4.37	13.61
Class										
Standard 4	15	89	19.4	9.83	34.75	10	60	13.0	7.99	20.55
Standard 5	3	24	8.4	2.22	27.28	7	58	20.6	15.08	27.53
Standard 6	-	-	-	-	-	1	14	5.4	0.74	30.54
Form 1	14	55	16.6	10.08	26.18	15	58	17.6	9.37	30.67
Form 2	8	37	14.0	7.41	25.00	6	25	9.7	4.71	19.02
Form 3	6	34	11.8	4.39	27.93	4	22	7.5	2.80	18.53
Form 4	6	30	12.8	6.87	22.65	-	-	-	-	-
Form 5	6	47	14.3	7.47	25.64	1	7	2.3	0.40	11.96
Ethnicity										
Malay	57	310	13.0	9.20	18.12	41	226	9.5	6.12	14.48
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	1	7	100.0	100.00	100.00
Bumiputera Sabah	1	5	58.2	5.53	97.08	-	-	-	-	-
Bumiputera Sarawak	-	-	-	-	-	2	10	55.2	11.31	92.27
Others	-	-	-	-	-	-	-	-	-	-

3.4 Meal pattern among adolescents (Primary 4 to Secondary 5) in WP Putrajaya

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3.4.1 Introduction

The term ‘meal patterns’ is often used to describe individuals’ eating patterns at the level of a ‘meal’, such as a main meal (for example, breakfast, lunch or dinner) or a smaller-sized meal (for example, supper or snack). It also can be described in three constructs, which is patterning (frequency, spacing, regularity, skipping, timing), format (types of food combinations, sequencing of foods, nutrient profile/content); and context (eating with others or with the family, eating in front of the television or out of the home). Understanding the ways in which different meal patterns make an impact on diet quality is very important as it believed to affect the growth of the individual and elucidate important diet–disease relationships, especially among adolescents. Therefore, meal pattern based approach could complement current nutrition advice to enhance healthy eating campaign strategies.

3.4.2 Objective

General objective:

To determine the meal pattern of adolescent in W.P Putrajaya (Primary 4 to Secondary 5).

Specific objective:

- To determine the prevalence consumption of individual main meals (breakfast, lunch, dinner) and intermeal (during recess, afternoon tea and heavy meal after dinner).
- To identify the sources of food and/or drink consume for main meals (breakfast, lunch, dinner) and intermeals (during recess, afternoon tea and heavy meal after dinner).
- To identify reasons for skipping main meals (breakfast, lunch and dinner).
- To determine the prevalence of practice bringing food or drinks to school.
- To identify common type of food or drink brought to school.
- To determine the prevalence of eating out in adolescents.
- To determine the prevalence of snacking and practice of buying snack out of school area.
- To identify common type of snack consumed and bought out of school area.
- To identify source of media that affect meal pattern among adolescents.

3.4.3 Variable Definition

- **Main meal:** the traditional meal; breakfast, lunch, dinner.

- **Breakfast:** defined as the first food taken after waking from sleep, food intake in the early morning, between 6.00 am to 8 am.
- **Lunch:** defined as food consumed or meal between 11.00 am to 3.00 pm.
- **Dinner:** defined as foods consumed or meal between 6.00 pm to 10.00 pm.
- **Afternoon tea:** defined as food and/ or drinks taken between lunch and dinner, between 3.00 pm to 6.00 pm.
- **Heavy meal after dinner:** food taken at night after the dinner after 10.00 pm. Examples of foods that are considered heavy meal is high calorie food such as *nasi lemak*, *roti canai*, fried mee, burger, fried chicken and so on. It does not include two small snacks like crackers and/or a glass of milk.
- **Skipping meal:** the omission or lack of consumption of one or more of the traditional main meals (breakfast, lunch or dinner) throughout the day.
- **Dieting:** to limit food intake in terms of the amount of frequency of eating for weight loss purposes.
- **Fast food:** meant in this question, including ready-to-eat food. Ready-to-eat foods are foods that can be eaten immediately after purchase. It consists of cooked food, food either hot or cold foods and foods that can be eaten without further cooking or heating.
- **Snacking:** consumption of energy outside of traditional meals such as breakfast, lunch, and dinner.
- **Eating during school break time:** Eating time between the intervals of classes after school started.
- **Eating out:** either eating at restaurant or hawker stall, and does not includes buying outside food and eat it at home.
- **Snack food:** snack food such as bun, biscuits, fruits, nuts, crackers, ice cream, junk foods, pickles, flavored/carbonated drink, fries/ nugget/sausage, candy or chocolate.

3.4.4 Findings

There were 2,473 respondents that represented 14,982 adolescents aged 10 to 17 years old in Wilayah Persekutuan Putrajaya who responded to this module. About 28.6% (95% CI: 24.32, 33.21), 47.2% (95% CI: 42.30, 52.19) and 56.1% (95% CI: 51.97, 60.20) had consumed breakfast, lunch and dinner seven days per week respectively. Majority of the adolescents in

Wilayah Persekutuan Putrajaya had their source of food for main meal from home especially for breakfast and dinner. Lack of time was cited as the main reason by the adolescents in Putrajaya to skip the breakfast while no appetite was the main reason for skipping lunch and dinner. About 69.6% (95% CI: 64.42, 74.40) of adolescents in Wilayah Persekutuan Putrajaya took their meal during recess everyday (5 days per week) and their main source of the meal was from the school canteen. There were 8.4% (95% CI: 7.12, 9.89) adolescents having heavy meal daily after dinner. The source of food for heavy meal after dinner were mainly from home 53.0% (95% CI: 42.24, 63.49) and restaurant or kiosk 33.1% (95% CI: 27.22, 39.47). About 2.3% (95% CI: 1.40, 3.72) and 89.0% (95% CI: 87.46, 90.31) adolescents in Wilayah Persekutuan Putrajaya consumed fast food on daily basis and one to six days per week respectively. During the school days, 12.7% (95% CI: 10.87, 14.77) and 47.4% (95% CI: 41.05, 53.87) of adolescents practices in bringing food and drink respectively, daily to school.. The most frequent food brought to school was nasi lemak/fried rice/mixed rice while the most frequent drink brought to school was plain water. Most of the adolescents also spend their pocket money for buying food or drink [70.5% (95% CI: 66.90, 73.95)]. About 4.6% (95% CI: 3.23, 6.48) of adolescents in Wilayah Persekutuan Putrajaya had the habit of eating out as frequent as 7 times or more in a week. Almost all adolescents in Wilayah Persekutuan Putrajaya consumed snack food at least once in a week and the most frequent snack food they consumed was bread/bun/sandwich. About three quarter of the adolescents here bought food or drink sold outside the school compound at least once in a week. The analysis also revealed that, one in five adolescents that bought food or drink sold out of the school compound choose flavoured/carbonated drinks. Social media and television were the two main media sources that influenced the dietary pattern of the adolescents in Wilayah Persekutuan Putrajaya.

3.4.5 Discussions/Conclusion

The low prevalence of main meals intake among the adolescents in Wilayah Persekutuan Putrajaya is worrying. Skipping main meals especially breakfast must be avoided by because it often has negative health effects. As lack of time was cited as the main reason for skipping breakfast, proper time management must be thought to these young individuals to overcome this issue. Poor appetite was recorded as the main reason for skipping lunch and dinner among the adolescents in Wilayah Persekutuan Putrajaya. Types of food brought to school and types of food or drinks bought outside of the school compound also an important issue to be highlighted here. This is because the food that they brought to school daily which were nasi lemak/fried rice/mixed rice and the type of drinks that they bought which are flavoured/carbonated drinks were all categorized as high in calories. More interactive advertisements and promotions of healthy food choices and nutrition education should be placed on television and social medias as these platforms can attract the attention of the adolescents' easily.

3.4.6 Recommendation

Results from this survey shows there is an urgent need to advocate the adolescents on the importance of proper meal pattern practices. As most of the adolescents are school-going individuals, Ministry of Health and Ministry of Education together with support and cooperation from Parents and Teachers Association and also from professional bodies (Nutrition Society of Malaysia, Malaysian Dietitians' Association, Malaysian Association for the Study of Obesity) should work hand-in-hand to educate and empower these adolescents on proper daily nutrition intakes especially on main meals and their importance. These multi-sectorial intervention and support must be continuous since positive dietary behavioral changes need a longer time to take effect on individuals.

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Table 3.4.1 : Prevalence of breakfast per week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Socio-demographic Characteristics	Breakfast frequency per week									
	Daily (7 days)					1 to 6 days				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	716	4279	28.6	24.32	33.21	1504	9210	61.5	58.82	64.07
Locality of school										
Urban	716	4279	28.6	24.32	33.21	1504	9210	61.5	58.82	64.07
Rural										
Sex										
Boys	425	2473	30.8	26.19	35.93	787	4828	60.2	56.54	63.81
Girls	291	1806	25.9	19.85	33.10	717	4382	62.9	57.86	67.70
Ethnicity										
Malay	697	4179	28.5	24.03	33.35	1475	9035	61.5	58.78	64.23
Chinese	4	25	63.2	27.59	88.57	2	15	36.8	11.43	72.41
Indian	9	43	43.6	16.00	75.82	8	46	46.6	21.64	73.46
Bumiputera Sabah	3	14	21.3	4.51	60.86	9	52	78.7	39.14	95.49
Bumiputera Sarawak	3	18	27.8	6.92	66.62	6	39	58.8	23.77	86.70
Others						4	24	77.8	20.32	97.96
School level										
Primary school	234	1877	28.4	21.04	37.16	504	4145	62.8	57.95	67.33
Secondary school	482	2402	28.7	24.17	33.65	1000	5065	60.5	57.77	63.11
Class										
Standard 4	124	774	32.1	20.61	46.17	231	1407	58.3	49.00	66.96
Standard 5	60	549	24.9	18.81	32.27	166	1492	67.7	60.50	74.19
Standard 6	50	553	27.8	16.10	43.70	107	1247	62.7	49.89	74.00
Form 1	156	623	32.0	27.62	36.68	286	1139	58.5	53.53	63.30
Form 2	124	563	31.9	23.42	41.78	231	1016	57.6	50.60	64.31
Form 3	76	469	27.5	17.62	40.16	169	1031	60.3	51.88	68.22
Form 4	77	376	25.6	20.12	32.00	190	944	64.3	57.87	70.34
Form 5	49	371	24.9	17.07	34.87	124	935	62.8	53.47	71.22
School session										
Morning session	468	2897	29.8	25.06	34.92	961	5942	61.0	58.00	63.98
Evening session	2	9	38.0	10.57	76.10	3	14	62.0	23.90	89.43
Morning and evening session	246	1373	26.3	20.90	32.56	539	3248	62.3	58.29	66.08
BMI-for-age status (BAZ)										
Thinness (<-2sd)	48	298	32.0	23.21	42.28	91	544	58.5	49.33	67.14
Normal (≥-2sd - ≤+1sd)	456	2733	29.7	24.91	34.95	935	5646	61.3	58.20	64.34
Overweight (>+1sd - ≤+2sd)	109	671	26.7	20.74	33.73	250	1542	61.4	55.17	67.32
Obese (>+2sd)	103	577	24.9	18.98	31.87	227	1464	63.1	54.95	70.65
Height-for-age status (HAZ)										
Stunting (<-2sd)	47	287	32.0	23.03	42.49	83	515	57.4	46.86	67.39
Normal (≥-2sd)	669	3992	28.4	23.86	33.32	1420	8690	61.7	58.70	64.66

Table 3.4.1 : Prevalence of breakfast per week among adolescents by socio-demographic characteristics and nutritional status

	Did not take breakfast				
	Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	253	1492	10.0	7.87	12.53
Locality of school					
Urban	253	1492	10.0	7.87	12.53
Rural					
Sex					
Boys	119	715	8.9	6.48	12.17
Girls	134	777	11.2	8.55	14.44
Ethnicity					
Malay	249	1467	10.0	7.84	12.66
Chinese					
Indian	1	10	9.8	0.87	57.23
Bumiputera Sabah					
Bumiputera Sarawak	2	9	13.4	1.42	62.49
Others	1	7	22.2	2.04	79.68
School level					
Primary school	74	583	8.8	5.76	13.29
Secondary school	179	910	10.9	8.41	13.91
Class					
Standard 4	39	234	9.7	5.43	16.69
Standard 5	18	162	7.3	3.91	13.36
Standard 6	17	187	9.4	6.24	13.99
Form 1	47	185	9.5	7.32	12.30
Form 2	43	185	10.5	6.38	16.81
Form 3	35	208	12.2	7.21	19.87
Form 4	30	147	10.0	6.16	15.93
Form 5	24	183	12.3	8.96	16.67
School session					
Morning session	156	897	9.2	6.92	12.15
Evening session					
Morning and evening session	97	596	11.4	8.63	14.97
BMI-for-age status (BAZ)					
Thinness (<-2sd)	15	88	9.5	5.22	16.65
Normal (≥-2sd - ≤+1sd)	144	829	9.0	6.48	12.38
Overweight (>+1sd - ≤+2sd)	49	297	11.8	8.11	16.97
Obese (>+2sd)	45	278	12.0	8.31	16.98
Height-for-age status (HAZ)					
Stunting (<-2sd)	15	95	10.6	6.11	17.68
Normal (≥-2sd)	238	1398	9.9	7.83	12.51

Table 3.4.2 : Source of food for breakfast among adolescents by socio-demographic characteristics and nutritional status (Cont..)

	Prepared at home					School canteen				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	1659	10197	76.3	59.32	87.68	255	1528	11.4	7.96	16.17
Locality of school										
Urban	1659	10197	76.3	59.32	87.68	255	1528	11.4	7.96	16.17
Rural										
Sex										
Boys	812	4980	68.7	42.82	86.52	142	855	11.8	7.69	17.65
Girls	847	5217	85.4	81.32	88.69	113	673	11.0	7.25	16.40
Ethnicity										
Malay	1619	9969	76.1	59.01	87.59	252	1506	11.5	7.99	16.28
Chinese	5	35	88.6	37.71	99.00					
Indian	15	72	81.9	36.00	97.34	2	16	18.1	2.66	64.00
Bumiputera Sabah	11	63	100.0	100.00	100.00					
Bumiputera Sarawak	6	38	77.8	35.13	95.78	1	6	12.4	1.25	61.24
Others	3	19	76.7	17.10	98.14					
School level										
Primary school	587	4867	81.8	73.57	87.90	110	842	14.1	8.62	22.35
Secondary school	1072	5330	71.9	43.36	89.54	145	687	9.3	5.85	14.36
Class										
Standard 4	277	1735	80.7	71.12	87.61	53	299	13.9	8.15	22.66
Standard 5	176	1603	80.2	68.28	88.43	39	339	17.0	9.24	29.08
Standard 6	134	1529	84.9	69.56	93.29	18	204	11.3	5.57	21.64
Form 1	334	1321	76.1	55.18	89.13	46	181	10.4	7.77	13.90
Form 2	237	1047	66.5	37.07	86.98	52	218	13.8	7.77	23.45
Form 3	174	1055	70.6	37.56	90.56	17	101	6.8	3.52	12.68
Form 4	207	1002	76.6	41.68	93.75	12	61	4.7	3.51	6.27
Form 5	120	905	69.7	41.43	88.19	18	124	9.6	3.76	22.30
School session										
Morning session	1128	7091	81.3	72.37	87.82	157	894	10.3	7.75	13.45
Evening session	5	23	100.0	100.00	100.00					
Morning and evening session	525	3077	66.7	36.79	87.38	98	634	13.7	7.16	24.77
BMI-for-age status (BAZ)										
Thinness (<-2sd)	112	684	81.7	71.80	88.66	14	79	9.4	4.35	19.19
Normal (≥-2sd - ≤+1sd)	1050	6424	77.4	59.23	89.02	152	877	10.6	6.95	15.75
Overweight (>+1sd - ≤+2sd)	254	1570	71.4	52.14	85.08	48	321	14.6	9.41	21.95
Obese (>+2sd)	242	1505	74.7	59.12	85.77	41	251	12.5	8.76	17.47
Height-for-age status (HAZ)										
Stunting (<-2sd)	100	617	77.8	57.86	89.94	15	94	11.9	5.65	23.36
Normal (≥-2sd)	1559	9580	76.3	59.33	87.60	240	1434	11.4	7.91	16.19

Table 3.4.2 : Source of food for breakfast among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Socio-demographic Characteristics	Source of food for breakfast									
	Restaurant/ kiosk					Hostel				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	53	335	2.5	1.77	3.54	191	1059	7.9	1.12	39.63
Locality of school										
Urban	53	335	2.5	1.77	3.54	191	1059	7.9	1.12	39.63
Rural										
Sex										
Boys	36	228	3.1	1.77	5.54	189	1043	14.4	2.15	56.29
Girls	17	107	1.7	1.03	2.94	2	15	0.3	0.06	1.01
Ethnicity										
Malay	53	335	2.6	1.80	3.62	189	1048	8.0	1.13	39.81
Chinese										
Indian										
Bumiputera Sabah										
Bumiputera Sarawak						1	5	9.8	0.97	54.87
Others						1	6	23.3	1.86	82.90
School level										
Primary school	22	176	3.0	1.65	5.24	1	7	0.1	0.02	0.94
Secondary school	31	159	2.1	1.61	2.86	190	1051	14.2	2.02	57.01
Class										
Standard 4	14	80	3.7	2.20	6.23	1	7	0.3	0.04	2.51
Standard 5	3	28	1.4	0.63	3.12					
Standard 6	5	67	3.7	0.77	16.38					
Form 1	8	33	1.9	1.10	3.20	43	186	10.7	1.58	47.35
Form 2	9	42	2.6	1.36	5.10	52	250	15.9	2.16	61.69
Form 3	5	30	2.0	1.08	3.65	38	244	16.4	2.11	63.98
Form 4	4	19	1.4	0.44	4.67	36	200	15.3	2.39	57.25
Form 5	5	36	2.8	1.09	6.95	21	171	13.2	1.75	56.35
School session										
Morning session	38	231	2.6	2.06	3.39	64	374	4.3	0.79	20.12
Evening session										
Morning and evening session	15	104	2.3	1.01	4.96	127	685	14.9	1.72	63.47
BMI-for-age status (BAZ)										
Thinness (<-2sd)	3	22	2.6	0.91	7.35	5	24	2.8	0.40	17.36
Normal (≥-2sd - ≤+1sd)	28	172	2.1	1.32	3.24	126	699	8.4	1.26	39.89
Overweight (>+1sd - ≤+2sd)	11	68	3.1	1.44	6.56	37	203	9.2	1.17	46.79
Obese (>+2sd)	11	72	3.6	2.24	5.73	23	132	6.6	0.78	38.52
Height-for-age status (HAZ)										
Stunting (<-2sd)	2	11	1.3	0.28	6.10	9	56	7.1	0.76	42.88
Normal (≥-2sd)	51	324	2.6	1.81	3.67	181	998	7.9	1.13	39.35

Table 3.4.2 : Source of food for breakfast among adolescents by socio-demographic characteristics and nutritional status

Socio-demographic Characteristics	Source of food for breakfast				
	Count	Estimated Population	Prevalence (%)	Others	
				95% CI Lower	95% CI Upper
WP Putrajaya	39	243	1.8	1.12	2.93
Locality of school					
Urban	39	243	1.8	1.12	2.93
Rural					
Sex					
Boys	24	146	2.0	1.03	3.86
Girls	15	98	1.6	0.87	2.93
Ethnicity					
Malay	38	239	1.8	1.11	2.99
Chinese	1	5	11.4	1.00	62.29
Indian					
Bumiputera Sabah					
Bumiputera Sarawak					
Others					
School level					
Primary school	8	58	1.0	0.57	1.68
Secondary school	31	185	2.5	1.52	4.08
Class					
Standard 4	5	30	1.4	0.86	2.26
Standard 5	3	28	1.4	0.44	4.38
Standard 6					
Form 1	4	16	0.9	0.40	2.03
Form 2	4	19	1.2	0.62	2.23
Form 3	10	64	4.3	1.63	10.72
Form 4	5	25	1.9	0.60	6.00
Form 5	8	62	4.8	3.08	7.36
School session					
Morning session	22	133	1.5	0.95	2.43
Evening session					
Morning and evening session	17	110	2.4	1.31	4.35
BMI-for-age status (BAZ)					
Thinness (<-2sd)	4	29	3.4	1.07	10.45
Normal (≥-2sd - ≤+1sd)	20	124	1.5	0.71	3.10
Overweight (>+1sd - ≤+2sd)	7	37	1.7	0.84	3.38
Obese (>+2sd)	8	54	2.7	1.18	5.92
Height-for-age status (HAZ)					
Stunting (<-2sd)	2	15	1.9	0.45	7.73
Normal (≥-2sd)	37	228	1.8	1.10	2.97

Table 3.4.3 : Reasons for skipping breakfast among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Socio-demographic Characteristics	Reasons for skipping breakfast									
	No food available					No appetite				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	192	1147	11.5	9.46	13.88	550	3315	33.2	30.34	36.22
Locality of school										
Urban	192	1147	11.5	9.46	13.88	550	3315	33.2	30.34	36.22
Rural										
Sex										
Boys	101	587	11.4	7.97	16.01	274	1669	32.3	29.07	35.80
Girls	91	559	11.6	9.22	14.50	276	1647	34.1	29.38	39.24
Ethnicity										
Malay	191	1138	11.6	9.52	14.10	540	3262	33.3	30.41	36.35
Chinese										
Indian						2	13	25.6	4.68	70.69
Bumiputera Sabah						5	25	47.6	11.82	86.01
Bumiputera Sarawak	1	9	19.0	2.01	72.73	2	8	17.1	3.71	52.44
Others						1	8	29.4	4.68	77.99
School level										
Primary school	132	667	11.8	8.86	15.45	177	1483	34.4	29.51	39.66
Secondary school						373	1832	32.3	29.14	35.64
Class										
Standard 4	26	152	10.8	8.75	13.30	75	457	32.5	26.99	38.53
Standard 5	22	192	12.3	7.73	18.98	60	547	35.1	28.86	41.83
Standard 6	12	136	10.1	5.35	18.24	42	479	35.6	21.12	53.36
Form 1	34	134	10.7	7.08	15.99	127	506	40.6	34.26	47.36
Form 2	34	146	13.1	7.75	21.27	88	384	34.3	28.35	40.79
Form 3	23	140	11.8	7.29	18.50	67	409	34.5	29.77	39.51
Form 4	21	100	9.6	5.51	16.14	59	290	27.8	23.64	32.46
Form 5	20	147	13.6	8.57	21.00	32	244	22.6	16.81	29.55
School session										
Morning session	130	794	12.5	10.73	14.46	348	2108	33.1	29.50	36.93
Evening session	1	4	28.8	2.51	86.45					
Morning and evening session	61	348	9.7	6.30	14.56	202	1207	33.5	28.93	38.46
BMI-for-age status (BAZ)										
Thinness (<-2sd)	8	47	8.4	4.07	16.38	34	211	37.6	27.50	48.91
Normal (≥-2sd - ≤+1sd)	128	749	12.4	9.88	15.38	341	1957	32.3	28.70	36.13
Overweight (>+1sd - ≤+2sd)	26	164	9.6	6.72	13.59	94	624	36.5	28.30	45.62
Obese (>+2sd)	30	186	11.4	7.86	16.15	81	522	31.9	26.37	37.98
Height-for-age status (HAZ)										
Stunting (<-2sd)	9	59	10.3	5.03	19.87	39	226	39.3	30.25	49.18
Normal (≥-2sd)	183	1088	11.6	9.57	13.92	510	3085	32.8	29.85	35.90

Table 3.4.3 : Reasons for skipping breakfast among adolescents by socio-demographic characteristics nutritional status (Cont..)

Socio-demographic Characteristics	Reasons for skipping breakfast									
	No time					On diet/ control body weight				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
Lower				Upper	Lower				Upper	
WP Putrajaya	707	4379	43.9	41.13	46.65	80	517	5.2	3.68	7.24
Locality of school										
Urban	707	4379	43.9	41.13	46.65	80	517	5.2	3.68	7.24
Rural										
Sex										
Boys	347	2186	42.4	39.85	44.93	48	300	5.8	3.67	9.12
Girls	360	2193	45.5	40.42	50.62	32	217	4.5	2.32	8.50
Ethnicity										
Malay	695	4303	43.9	41.19	46.74	77	491	5.0	3.65	6.86
Chinese	1	8	51.4	4.25	96.18	1	7	48.6	3.82	95.75
Indian	4	29	58.0	20.77	87.88					
Bumiputera Sabah	1	5	8.6	0.80	52.64	2	19	36.2	6.51	82.21
Bumiputera Sarawak	4	24	50.5	17.94	82.67					
Others	2	11	43.4	10.95	82.73					
School level										
Primary school	221	1825	42.3	38.23	46.55	36	309	7.2	4.96	10.27
Secondary school	486	2554	45.0	41.71	48.42	44	208	3.7	2.59	5.17
Class										
Standard 4	99	600	42.6	39.49	45.86	16	95	6.8	4.40	10.30
Standard 5	74	665	42.7	37.10	48.45	10	92	5.9	2.99	11.34
Standard 6	48	560	41.6	26.74	58.18	10	122	9.1	4.18	18.52
Form 1	110	437	35.1	29.30	41.43	21	84	6.7	4.13	10.76
Form 2	102	450	40.2	32.51	48.48	10	45	4.0	2.48	6.33
Form 3	86	523	44.1	38.94	49.32	5	30	2.5	0.44	13.35
Form 4	110	553	53.2	45.66	60.59	4	18	1.8	0.55	5.57
Form 5	78	591	54.6	47.74	61.37	4	31	2.9	1.31	6.20
School session										
Morning session	450	2784	43.7	40.69	46.80	49	323	5.1	3.60	7.11
Evening session										
Morning and evening session	257	1595	44.3	38.26	50.54	31	194	5.4	2.68	10.49
BMI-for-age status (BAZ)										
Thinness (<-2sd)	43	254	45.2	33.14	57.89	3	16	2.9	0.89	9.09
Normal (≥-2sd - ≤+1sd)	447	2763	45.6	42.00	49.26	36	240	4.0	2.63	5.90
Overweight (>+1sd - ≤+2sd)	114	674	39.4	30.59	49.05	20	124	7.3	4.78	10.93
Obese (>+2sd)	102	674	41.1	37.24	45.15	21	137	8.3	4.78	14.17
Height-for-age status (HAZ)										
Stunting (<-2sd)	40	257	44.8	33.99	56.05	1	8	1.4	0.16	10.70
Normal (≥-2sd)	667	4122	43.8	41.04	46.68	79	509	5.4	3.82	7.62

Table 3.4.3 : Reasons for skipping breakfast among adolescents by socio-demographic characteristics and nutritional status

Socio-demographic Characteristics	Reasons for skipping breakfast									
	No money					Others				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
Lower				Upper	Lower				Upper	
WP Putrajaya	37	234	2.3	1.51	3.65	72	389	3.9	2.29	6.57
Locality of school										
Urban	37	234	2.3	1.51	3.65	72	389	3.9	2.29	6.57
Rural										
Sex										
Boys	25	153	3.0	1.79	4.85	47	264	5.1	2.72	9.43
Girls	12	82	1.7	0.94	3.03	25	125	2.6	1.30	5.12
Ethnicity										
Malay	36	228	2.3	1.51	3.56	68	371	3.8	2.18	6.50
Chinese										
Indian						2	8	16.4	3.01	55.48
Bumiputera Sabah						1	4	7.6	0.69	49.00
Bumiputera Sarawak						1	6	13.4	1.34	63.89
Others	1	7	27.1	2.28	85.61					
School level										
Primary school	19	149	3.5	2.33	5.08	9	65	1.5	0.80	2.82
Secondary school	18	86	1.5	0.74	3.07	63	324	5.7	3.53	9.13
Class										
Standard 4	10	60	4.3	1.72	10.24	7	42	3.0	1.67	5.25
Standard 5	6	55	3.5	1.98	6.27	1	8	0.5	0.06	4.00
Standard 6	3	33	2.5	0.73	8.04	1	15	1.1	0.13	8.97
Form 1	6	24	1.9	0.95	3.73	15	61	4.9	2.77	8.45
Form 2	7	32	2.8	1.21	6.41	14	62	5.6	2.70	11.14
Form 3	4	23	1.9	0.65	5.61	10	62	5.2	2.63	10.07
Form 4						16	79	7.6	4.38	12.92
Form 5	1	8	0.7	0.09	5.54	8	60	5.6	2.32	12.80
School session										
Morning session	28	169	2.6	1.61	4.33	35	189	3.0	1.71	5.08
Evening session						2	10	71.2	13.55	97.49
Morning and evening session	9	66	1.8	0.79	4.20	35	190	5.3	2.70	10.08
BMI-for-age status (BAZ)										
Thinness (<-2sd)	1	7	1.2	0.14	10.12	5	26	4.7	1.68	12.36
Normal (≥-2sd - ≤+1sd)	21	138	2.3	1.20	4.28	37	212	3.5	1.80	6.69
Overweight (>+1sd - ≤+2sd)	9	58	3.4	2.10	5.40	13	64	3.8	1.58	8.67
Obese (>+2sd)	6	32	2.0	0.71	5.31	17	87	5.3	2.83	9.70
Height-for-age status (HAZ)										
Stunting (<-2sd)	2	12	2.1	0.48	8.50	2	13	2.2	0.25	16.96
Normal (≥-2sd)	35	223	2.4	1.48	3.77	70	377	4.0	2.43	6.54

Table 3.4.4 : Prevalence of lunch per week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Daily (7 days)					1 to 6 days				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	1155	7065	47.2	42.30	52.19	1256	7565	50.6	45.84	55.27
Locality of school										
Urban	1155	7065	47.2	42.30	52.19	1256	7565	50.6	45.84	55.27
Rural										
Sex										
Boys	609	3688	46.1	38.71	53.69	679	4095	51.2	44.18	58.19
Girls	546	3377	48.5	44.17	52.82	577	3470	49.8	45.51	54.12
Ethnicity										
Malay	1129	6908	47.1	42.08	52.21	1231	7424	50.6	45.81	55.45
Chinese	4	25	63.2	27.59	88.57	2	15	36.8	11.43	72.41
Indian	11	56	57.3	27.60	82.48	7	42	42.7	17.52	72.40
Bumiputera Sabah	4	27	40.4	11.95	77.13	7	36	54.7	22.30	83.54
Bumiputera Sarawak	6	42	63.1	27.38	88.57	5	24	36.9	11.43	72.62
Others	1	7	22.8	2.10	80.23	4	24	77.2	19.77	97.90
School level										
Primary school	352	2939	44.6	38.56	50.79	443	3528	53.5	47.01	59.94
Secondary school	803	4126	49.3	42.40	56.19	813	4037	48.2	42.21	54.29
Class										
Standard 4	160	996	41.2	35.21	47.57	226	1369	56.7	49.92	63.20
Standard 5	110	1011	45.9	38.86	53.16	128	1136	51.6	43.28	59.82
Standard 6	82	931	47.2	32.64	62.25	89	1023	51.8	36.66	66.69
Form 1	216	869	44.6	38.36	51.10	257	1016	52.2	46.62	57.69
Form 2	208	942	53.5	41.78	64.87	177	766	43.6	33.57	54.09
Form 3	143	881	51.6	41.29	61.73	130	786	46.0	36.63	55.65
Form 4	133	664	45.3	38.77	51.90	159	777	53.0	45.95	59.88
Form 5	103	770	51.7	40.46	62.77	90	691	46.4	35.15	58.10
School session										
Morning session	735	4610	47.4	43.37	51.50	809	4901	50.4	46.59	54.21
Evening session	4	19	81.4	37.54	96.95	1	4	18.6	3.05	62.46
Morning and evening session	416	2436	46.7	36.81	56.95	445	2655	50.9	41.50	60.31
BMI-for-age status (BAZ)										
Thinness (<-2sd)	65	388	41.8	31.96	52.26	85	509	54.7	44.77	64.26
Normal (≥-2sd - ≤+1sd)	735	4468	48.5	43.20	53.87	765	4556	49.5	44.35	54.62
Overweight (>+1sd - ≤+2sd)	194	1214	48.4	40.02	56.93	201	1231	49.1	41.21	57.06
Obese (>+2sd)	161	995	43.2	36.25	50.37	204	1256	54.5	47.64	61.17
Height-for-age status (HAZ)										
Stunting (<-2sd)	59	362	40.4	31.34	50.10	82	508	56.6	47.92	64.88
Normal (≥-2sd)	1095	6698	47.6	42.73	52.59	1174	7058	50.2	45.54	54.85

Table 3.4.6 : Prevalence of lunch per week among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Lunch frequency per week				
	Did not take lunch				
	Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper	
WP Putrajaya	60	332	2.2	1.57	3.14
Locality of school					
Urban	60	332	2.2	1.57	3.14
Rural					
Sex					
Boys	41	214	2.7	1.70	4.19
Girls	19	118	1.7	1.14	2.52
Ethnicity					
Malay	59	329	2.2	1.59	3.16
Chinese					
Indian					
Bumiputera Sabah	1	3	5.0	0.59	31.34
Bumiputera Sarawak					
Others					
School level					
Primary school	16	124	1.9	1.23	2.85
Secondary school	44	209	2.5	1.54	4.02
Class					
Standard 4	8	50	2.1	0.94	4.50
Standard 5	6	55	2.5	1.03	5.86
Standard 6	2	19	1.0	0.30	3.07
Form 1	16	62	3.2	1.69	5.88
Form 2	12	52	2.9	1.70	5.02
Form 3	7	42	2.4	1.16	5.02
Form 4	5	26	1.8	1.04	3.00
Form 5	4	28	1.9	0.58	5.77
School session					
Morning session	40	212	2.2	1.44	3.28
Evening session					
Morning and evening session	20	121	2.3	1.26	4.20
BMI-for-age status (BAZ)					
Thinness (<-2sd)	4	33	3.5	0.83	13.84
Normal (≥-2sd - ≤+1sd)	35	184	2.0	1.35	2.95
Overweight (>+1sd - ≤+2sd)	12	62	2.5	1.07	5.57
Obese (>+2sd)	9	54	2.3	1.29	4.18
Height-for-age status (HAZ)					
Stunting (<-2sd)	4	27	3.0	0.71	12.09
Normal (≥-2sd)	56	305	2.2	1.53	3.08

Table 3.4.5 : Source of food for lunch among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Source of food for lunch									
	Prepared at home					School canteen				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1044	6332	43.6	33.88	53.76	855	5225	35.9	25.88	47.42
Locality of school										
Urban	1044	6332	43.6	33.88	53.76	855	5225	35.9	25.88	47.42
Rural										
Sex										
Boys	507	3032	39.2	26.36	53.76	410	2563	33.2	22.98	45.18
Girls	537	3301	48.5	39.17	57.95	445	2662	39.1	26.84	52.94
Ethnicity										
Malay	1014	6163	43.3	33.53	53.60	844	5153	36.2	25.98	47.82
Chinese	4	28	69.7	34.02	91.09	1	8	18.9	3.28	61.58
Indian	13	72	73.4	50.85	88.05	4	22	22.5	7.72	50.18
Bumiputera Sabah	6	26	41.6	14.77	74.60	2	18	29.0	5.63	73.74
Bumiputera Sarawak	6	36	54.5	21.45	83.96	1	6	9.7	0.99	53.57
Others	1	8	24.1	3.55	73.29	3	18	57.8	19.20	88.75
School level										
Primary school	397	3170	49.3	46.74	51.94	294	2375	37.0	29.82	44.72
Secondary school	647	3163	39.0	23.96	56.44	561	2851	35.1	19.30	55.11
Class										
Standard 4	208	1291	55.1	48.50	61.61	140	840	35.9	30.62	41.48
Standard 5	112	1014	47.4	41.07	53.89	89	792	37.0	27.42	47.80
Standard 6	77	864	44.4	38.84	50.19	65	743	38.2	28.13	49.39
Form 1	203	803	42.7	30.88	55.51	157	624	33.2	21.60	47.32
Form 2	152	658	38.6	23.27	56.65	140	621	36.4	22.51	53.08
Form 3	101	598	36.1	18.94	57.80	93	578	35.0	15.24	61.64
Form 4	117	557	38.8	20.45	60.97	103	507	35.3	16.08	60.87
Form 5	74	547	38.0	22.27	56.75	68	520	36.2	18.10	59.19
School session										
Morning session	768	4701	49.7	44.19	55.22	482	2956	31.3	24.29	39.18
Evening session	3	15	63.5	25.34	89.94	1	4	18.6	3.05	62.46
Morning and evening session	272	1611	31.9	18.89	48.53	372	2265	44.9	24.79	66.75
BMI-for-age status (BAZ)										
Thinness (<-2sd)	62	357	40.6	33.65	48.03	61	376	42.8	29.70	57.06
Normal (≥-2sd - ≤+1sd)	623	3759	41.9	31.94	52.58	540	3263	36.4	26.14	48.02
Overweight (>+1sd - ≤+2sd)	188	1153	47.5	34.65	60.64	125	795	32.7	21.32	46.62
Obese (>+2sd)	170	1049	46.7	35.22	58.62	129	790	35.2	24.02	48.32
Height-for-age status (HAZ)										
Stunting (<-2sd)	63	385	44.5	31.74	58.10	51	317	36.8	23.44	52.45
Normal (≥-2sd)	981	5948	43.5	33.83	53.73	804	4908	35.9	25.85	47.37

Table 3.4.5 : Source of food for lunch among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Source of food for lunch									
	Restaurant/ kiosk					Hostel				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	211	1324	9.1	5.90	13.81	216	1200	8.3	1.22	39.58
Locality of school										
Urban	211	1324	9.1	5.90	13.81	216	1200	8.3	1.22	39.58
Rural										
Sex										
Boys	115	729	9.4	5.82	14.93	214	1191	15.4	2.44	56.94
Girls	96	595	8.7	5.06	14.69	2	9	0.1	0.03	0.58
Ethnicity										
Malay	206	1297	9.1	5.84	13.95	214	1189	8.4	1.24	39.82
Chinese										
Indian	1	4	4.1	0.42	30.02					
Bumiputera Sabah	2	8	12.4	2.30	45.87					
Bumiputera Sarawak	2	15	22.5	4.47	64.24	1	5	7.3	0.73	45.94
Others						1	6	18.1	1.60	75.02
School level										
Primary school	67	611	9.5	5.81	15.17	2	20	0.3	0.07	1.46
Secondary school	144	713	8.8	4.41	16.77	214	1180	14.5	2.12	57.27
Class										
Standard 4	21	130	5.6	2.15	13.59	1	5	0.2	0.03	1.33
Standard 5	25	232	10.8	7.10	16.17					
Standard 6	21	249	12.8	7.41	21.23	1	15	0.8	0.10	5.84
Form 1	46	178	9.5	5.84	15.00	51	218	11.6	2.11	44.58
Form 2	28	122	7.2	3.58	13.78	56	267	15.7	2.35	58.97
Form 3	30	178	10.8	5.08	21.43	43	275	16.6	2.10	64.95
Form 4	23	108	7.5	3.24	16.59	40	224	15.6	2.18	60.53
Form 5	17	127	8.8	2.71	25.06	24	195	13.5	1.70	58.69
School session										
Morning session	165	1059	11.2	7.88	15.67	76	443	4.7	1.00	19.36
Evening session	1	4	17.9	1.57	74.84					
Morning and evening session	45	261	5.2	2.22	11.53	140	756	15.0	1.72	63.90
BMI-for-age status (BAZ)										
Thinness (<-2sd)	15	97	11.1	5.42	21.28	6	29	3.3	0.44	20.40
Normal (≥-2sd - ≤+1sd)	140	867	9.7	6.52	14.11	140	761	8.5	1.27	40.02
Overweight (>+1sd - ≤+2sd)	29	177	7.3	4.26	12.15	40	228	9.4	1.31	44.74
Obese (>+2sd)	27	182	8.1	4.06	15.63	30	181	8.1	1.20	38.79
Height-for-age status (HAZ)										
Stunting (<-2sd)	12	75	8.7	4.46	16.14	12	73	8.5	0.99	45.98
Normal (≥-2sd)	199	1249	9.1	5.91	13.88	203	1122	8.2	1.23	39.07

Table 3.4.5 : Source of food for lunch among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Source of food for lunch				
	Count	Estimated Population	Other Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	70	455	3.1	2.05	4.76
Locality of school					
Urban	70	455	3.1	2.05	4.76
Rural					
Sex					
Boys	33	217	2.8	1.72	4.52
Girls	37	239	3.5	2.03	6.01
Ethnicity					
Malay	67	436	3.1	2.02	4.62
Chinese	1	5	11.4	1.00	62.29
Indian					
Bumiputera Sabah	1	11	17.0	1.76	69.99
Bumiputera Sarawak	1	4	6.0	0.60	40.83
Others					
School level					
Primary school	29	250	3.9	2.00	7.42
Secondary school	41	206	2.5	1.75	3.67
Class					
Standard 4	12	76	3.2	1.37	7.44
Standard 5	11	101	4.7	2.31	9.34
Standard 6	6	73	3.8	1.01	13.06
Form 1	14	55	2.9	2.03	4.21
Form 2	8	36	2.1	1.03	4.23
Form 3	4	25	1.5	0.51	4.40
Form 4	8	40	2.8	1.33	5.67
Form 5	7	50	3.5	1.40	8.39
School session					
Morning session	45	299	3.2	1.88	5.28
Evening session					
Morning and evening session	25	156	3.1	1.85	5.12
BMI-for-age status (BAZ)					
Thinness (<-2sd)	3	19	2.2	0.54	8.57
Normal (≥-2sd - ≤+1sd)	49	319	3.6	2.27	5.54
Overweight (>+1sd - ≤+2sd)	11	76	3.1	1.12	8.38
Obese (>+2sd)	7	41	1.8	0.85	3.93
Height-for-age status (HAZ)					
Stunting (<-2sd)	2	14	1.6	0.34	7.01
Normal (≥-2sd)	68	442	3.2	2.10	4.93

Table 3.4.6 : Reasons for skipping lunch among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Reasons for skipping lunch									
	No food available					No appetite				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	124	745	10.6	8.20	13.64	475	2797	39.9	36.36	43.50
Locality of school										
Urban	124	745	10.6	8.20	13.64	475	2797	39.9	36.36	43.50
Rural										
Sex										
Boys	71	413	10.7	7.35	15.33	254	1489	38.6	34.96	42.42
Girls	53	332	10.5	7.59	14.40	221	1307	41.4	35.53	47.54
Ethnicity										
Malay	123	737	10.7	8.26	13.79	462	2732	39.7	36.10	43.43
Chinese	1	8	51.4	4.25	96.18	1	7	48.6	3.82	95.75
Indian						2	13	38.6	6.72	84.57
Bumiputera Sabah						7	29	73.0	17.73	97.13
Bumiputera Sarawak						1	4	18.0	1.62	74.65
Others						2	12	47.8	5.52	93.47
School level										
Primary school	42	328	10.5	8.48	12.88	174	1351	43.2	38.50	47.96
Secondary school	82	417	10.7	6.96	16.20	301	1446	37.2	33.12	41.53
Class										
Standard 4	23	140	12.1	7.93	17.90	89	545	46.9	37.76	56.26
Standard 5	9	76	7.4	3.51	15.04	63	556	54.2	43.56	64.54
Standard 6	10	112	11.8	6.11	21.70	22	250	26.5	16.06	40.57
Form 1	21	82	8.2	5.64	11.79	118	468	47.1	38.98	55.35
Form 2	18	79	10.8	6.67	16.96	69	301	41.2	34.81	47.81
Form 3	15	86	11.4	5.56	22.10	50	308	41.1	32.64	50.10
Form 4	15	73	9.9	4.96	18.73	45	223	30.2	21.49	40.52
Form 5	13	97	14.6	6.99	27.96	19	145	21.7	13.99	32.07
School session										
Morning session	88	522	11.5	8.97	14.54	306	1795	39.4	34.80	44.16
Evening session										
Morning and evening session	36	222	9.1	6.04	13.39	169	1002	40.9	34.40	47.67
BMI-for-age status (BAZ)										
Thinness (<-2sd)	10	60	13.9	6.12	28.51	31	192	44.1	31.91	57.02
Normal (≥-2sd - ≤+1sd)	82	497	11.7	9.11	14.86	297	1705	40.1	36.97	43.35
Overweight (>+1sd - ≤+2sd)	16	95	8.4	4.71	14.56	71	438	38.7	30.25	47.81
Obese (>+2sd)	16	93	7.8	4.80	12.55	76	462	39.1	30.35	48.58
Height-for-age status (HAZ)										
Stunting (<-2sd)	10	65	13.2	6.45	25.25	34	218	44.6	29.90	60.39
Normal (≥-2sd)	114	680	10.4	8.03	13.42	441	2579	39.5	36.10	43.05

Table 3.4.6 : Reasons for skipping lunch among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Reasons for skipping lunch									
	No time					On diet/ control body weight				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	229	1392	19.8	17.00	23.04	134	766	10.9	8.95	13.26
Locality of school										
Urban	229	1392	19.8	17.00	23.04	134	766	10.9	8.95	13.26
Rural										
Sex										
Boys	117	703	18.2	14.96	22.01	81	461	11.9	9.30	15.21
Girls	112	689	21.8	17.03	27.55	53	305	9.7	6.72	13.71
Ethnicity										
Malay	225	1359	19.7	16.91	22.93	131	751	10.9	9.03	13.15
Chinese										
Indian	2	17	49.6	10.57	89.17	1	4	11.8	1.06	62.51
Bumiputera Sabah	1	11	27.0	2.87	82.27					
Bumiputera Sarawak	1	6	28.9	2.92	84.61	1	5	22.6	2.12	79.78
Others						1	6	23.5	1.88	83.08
School level										
Primary school	74	592	18.9	13.80	25.36	36	296	9.4	7.50	11.84
Secondary school	155	800	20.6	18.09	23.37	98	470	12.1	9.17	15.80
Class										
Standard 4	37	224	19.3	16.71	22.21	17	98	8.4	5.70	12.21
Standard 5	25	235	23.0	9.06	47.16	6	53	5.2	2.76	9.67
Standard 6	12	132	14.0	10.94	17.78	13	145	15.3	9.50	23.82
Form 1	41	159	16.0	12.22	20.73	29	116	11.7	8.66	15.56
Form 2	29	125	17.0	14.43	19.99	25	107	14.6	9.74	21.29
Form 3	17	101	13.5	10.08	17.75	14	82	11.0	4.56	24.17
Form 4	39	190	25.6	17.70	35.58	23	111	15.0	10.42	21.17
Form 5	29	226	33.8	22.87	46.82	7	53	8.0	3.91	15.67
School session										
Morning session	147	884	19.4	15.46	24.07	88	496	10.9	8.27	14.21
Evening session						1	4	100.0	100.00	100.00
Morning and evening session	82	508	20.7	16.63	25.48	45	265	10.8	7.56	15.22
BMI-for-age status (BAZ)										
Thinness (<-2sd)	12	72	16.7	9.20	28.32	4	19	4.3	1.80	10.09
Normal (≥-2sd - ≤+1sd)	146	849	20.0	16.97	23.34	59	336	7.9	6.09	10.18
Overweight (>+1sd - ≤+2sd)	35	229	20.2	14.04	28.27	32	176	15.5	8.69	26.20
Obese (>+2sd)	35	228	19.3	13.88	26.15	39	235	19.9	15.07	25.83
Height-for-age status (HAZ)										
Stunting (<-2sd)	18	112	22.9	12.30	38.57	5	23	4.8	1.22	17.05
Normal (≥-2sd)	211	1280	19.6	16.56	23.09	129	742	11.4	9.50	13.56

Table 3.4.6: Reasons for skipping lunch among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Reasons for skipping lunch									
	No money					Others				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	130	851	12.1	9.53	15.33	80	463	6.6	4.18	10.29
Locality of school										
Urban	130	851	12.1	9.53	15.33	80	463	6.6	4.18	10.29
Rural										
Sex										
Boys	76	514	13.3	9.68	18.06	49	277	7.2	4.00	12.58
Girls	54	337	10.7	7.97	14.19	31	186	5.9	3.80	9.02
Ethnicity										
Malay	128	838	12.2	9.60	15.34	80	463	6.7	4.26	10.46
Chinese										
Indian										
Bumiputera Sabah										
Bumiputera Sarawak	1	6	30.4	3.15	85.50					
Others	1	7	28.8	2.40	86.90					
School level										
Primary school	50	455	14.5	11.28	18.54	14	108	3.5	1.69	6.95
Secondary school	80	396	10.2	7.07	14.51	66	355	9.1	5.88	13.93
Class										
Standard 4	18	107	9.2	4.78	16.95	8	48	4.1	2.00	8.36
Standard 5	9	79	7.7	3.37	16.57	3	25	2.5	0.77	7.59
Standard 6	23	269	28.6	19.72	39.42	3	35	3.7	0.73	16.68
Form 1	30	116	11.6	8.37	15.93	13	54	5.4	2.65	10.63
Form 2	16	68	9.3	4.76	17.55	12	52	7.1	5.55	9.04
Form 3	16	97	13.0	5.09	29.22	12	75	10.1	4.10	22.67
Form 4	9	47	6.4	2.91	13.34	19	96	12.9	8.75	18.75
Form 5	9	68	10.2	5.54	18.05	10	78	11.7	6.90	19.12
School session										
Morning session	90	614	13.5	10.31	17.40	42	246	5.4	3.53	8.17
Evening session										
Morning and evening session	40	237	9.7	6.73	13.74	38	217	8.9	4.50	16.73
BMI-for-age status (BAZ)										
Thinness (<-2sd)	11	65	15.1	9.38	23.29	5	26	6.0	2.58	13.21
Normal (≥-2sd - ≤+1sd)	84	568	13.4	10.17	17.38	51	296	7.0	4.05	11.70
Overweight (>+1sd - ≤+2sd)	20	130	11.5	7.06	18.08	12	65	5.7	3.19	10.02
Obese (>+2sd)	15	87	7.4	4.22	12.66	12	77	6.5	3.15	12.85
Height-for-age status (HAZ)										
Stunting (<-2sd)	9	55	11.2	3.75	29.11	3	16	3.2	1.01	9.73
Normal (≥-2sd)	121	796	12.2	9.63	15.35	77	447	6.9	4.38	10.57

Table 3.4.7 : Prevalence of dinner per week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Dinner frequency per week									
	Daily (7 days)					1 to 6 days				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1365	8401	56.1	51.97	60.20	1032	6126	40.9	37.14	44.82
Locality of school										
Urban	1365	8401	56.1	51.97	60.20	1032	6126	40.9	37.14	44.82
Rural										
Sex										
Boys	769	4659	58.1	53.48	62.68	534	3192	39.8	35.56	44.28
Girls	596	3743	53.8	47.82	59.67	498	2934	42.2	36.60	47.94
Ethnicity										
Malay	1338	8258	56.3	52.01	60.50	1008	5978	40.8	36.81	44.82
Chinese	4	27	67.1	19.20	94.62	2	13	32.9	5.38	80.80
Indian	10	46	46.7	23.90	70.95	8	52	53.3	29.05	76.10
Bumiputera Sabah	7	38	57.3	21.70	86.67	5	28	42.7	13.33	78.30
Bumiputera Sarawak	5	26	39.5	13.19	73.76	5	30	46.0	16.04	79.23
Others	1	7	22.8	2.10	80.23	4	24	77.2	19.77	97.90
School level										
Primary school	464	3838	58.2	50.86	65.16	322	2561	38.8	32.43	45.63
Secondary school	901	4564	54.5	50.10	58.84	710	3565	42.6	38.53	46.72
Class										
Standard 4	216	1339	55.4	48.52	62.13	164	988	40.9	34.56	47.55
Standard 5	141	1271	57.7	51.69	63.54	96	865	39.3	34.01	44.82
Standard 6	107	1228	62.1	48.32	74.11	62	708	35.8	25.58	47.48
Form 1	280	1123	57.8	48.53	66.52	192	757	39.0	30.33	48.33
Form 2	218	980	55.5	46.75	64.01	169	736	41.7	33.69	50.15
Form 3	150	919	53.8	46.46	60.94	126	765	44.8	38.12	51.66
Form 4	142	703	47.9	42.58	53.23	144	711	48.5	43.02	53.94
Form 5	111	839	56.4	53.52	59.16	79	596	40.0	37.46	42.58
School session										
Morning session	870	5498	56.5	51.44	61.47	665	3930	40.4	35.43	45.57
Evening session	3	15	63.5	25.34	89.94	2	9	36.5	10.06	74.66
Morning and evening session	492	2889	55.4	49.69	61.01	365	2187	42.0	37.29	46.79
BMI-for-age status (BAZ)										
Thinness (<-2sd)	97	596	64.1	57.36	70.35	56	328	35.3	28.82	42.31
Normal (≥-2sd - ≤+1sd)	886	5406	58.8	54.00	63.42	614	3602	39.2	34.86	43.67
Overweight (>+1sd - ≤+2sd)	204	1284	51.1	43.14	59.08	181	1091	43.5	36.15	51.07
Obese (>+2sd)	178	1115	48.1	42.59	53.64	180	1090	47.0	42.06	52.01
Height-for-age status (HAZ)										
Stunting (<-2sd)	84	525	58.6	47.38	68.97	59	357	39.8	28.34	52.55
Normal (≥-2sd)	1280	7871	56.0	51.88	59.95	973	5768	41.0	37.29	44.83

Table 3.4.7 : Prevalence of dinner per week among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Dinner frequency per week				
	Did not take dinner				
	Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper	
WP Putrajaya	74	441	2.9	2.18	3.97
Locality of school					
Urban	74	441	2.9	2.18	3.97
Rural					
Sex					
Boys	27	161	2.0	1.22	3.29
Girls	47	280	4.0	2.88	5.61
Ethnicity					
Malay	73	432	2.9	2.23	3.89
Chinese					
Indian					
Bumiputera Sabah					
Bumiputera Sarawak	1	10	14.4	1.55	64.41
Others					
School level					
Primary school	25	197	3.0	1.79	4.95
Secondary school	49	244	2.9	2.05	4.14
Class					
Standard 4	14	89	3.7	3.06	4.41
Standard 5	7	66	3.0	1.39	6.33
Standard 6	4	42	2.1	0.50	8.76
Form 1	16	63	3.3	2.28	4.64
Form 2	11	49	2.8	1.13	6.64
Form 3	4	24	1.4	0.64	3.14
Form 4	11	54	3.7	2.55	5.22
Form 5	7	54	3.6	1.91	6.84
School session					
Morning session	49	300	3.1	2.29	4.13
Evening session					
Morning and evening session	24	136	2.6	1.64	4.13
BMI-for-age status (BAZ)					
Thinness (<-2sd)	1	6	0.6	0.07	4.89
Normal (≥-2sd - ≤+1sd)	33	187	2.0	1.33	3.09
Overweight (>+1sd - ≤+2sd)	23	136	5.4	3.42	8.41
Obese (>+2sd)	17	114	4.9	3.20	7.44
Height-for-age status (HAZ)					
Stunting (<-2sd)	2	14	1.6	0.37	6.54
Normal (≥-2sd)	72	427	3.0	2.20	4.17

Table 3.4.8 : Source of food for dinner among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Socio-demographic Characteristics	Source of food for dinner									
	Prepared at home					Restaurant/ kiosk				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1821	11137	77.3	60.15	88.47	234	1440	10.0	7.75	12.80
Locality of school										
Urban	1821	11137	77.3	60.15	88.47	234	1440	10.0	7.75	12.80
Rural										
Sex										
Boys	870	5366	68.9	42.63	86.86	131	796	10.2	6.82	15.04
Girls	951	5771	87.1	84.05	89.72	103	645	9.7	7.40	12.70
Ethnicity										
Malay	1779	10899	77.2	59.86	88.49	230	1413	10.0	7.73	12.87
Chinese	5	35	88.6	37.71	99.00					
Indian	14	72	73.4	34.16	93.63	3	19	19.3	4.12	57.05
Bumiputera Sabah	11	63	95.0	68.66	99.41					
Bumiputera Sarawak	8	43	75.4	31.97	95.25	1	9	16.0	1.72	67.50
Others	4	26	81.9	24.98	98.40					
School level										
Primary school	647	5320	84.0	79.57	87.65	90	707	11.2	8.25	14.94
Secondary school	1174	5817	72.0	43.53	89.58	144	733	9.1	6.19	13.14
Class										
Standard 4	301	1843	80.9	72.42	87.22	50	310	13.6	8.38	21.34
Standard 5	204	1842	87.0	83.42	89.85	21	188	8.9	6.38	12.17
Standard 6	142	1635	84.5	74.25	91.13	19	209	10.8	5.67	19.63
Form 1	348	1374	73.7	54.27	86.90	51	200	10.7	7.67	14.87
Form 2	279	1216	71.6	40.75	90.23	29	129	7.6	4.38	12.92
Form 3	205	1241	74.2	39.51	92.65	15	92	5.5	3.28	9.07
Form 4	212	1021	72.2	39.60	91.15	23	112	7.9	4.69	13.12
Form 5	130	965	67.6	39.26	87.05	26	200	14.0	8.38	22.39
School session										
Morning session	1222	7544	80.9	72.80	87.03	153	944	10.1	8.04	12.67
Evening session	5	23	100.0	100.00	100.00					
Morning and evening session	594	3569	70.5	38.08	90.30	81	497	9.8	5.82	16.09
BMI-for-age status (BAZ)										
Thinness (<-2sd)	128	773	84.3	72.90	91.44	14	88	9.6	5.08	17.35
Normal (≥-2sd - ≤+1sd)	1147	6945	77.6	59.74	89.03	135	842	9.4	7.31	12.04
Overweight (>+1sd - ≤+2sd)	275	1738	73.9	53.45	87.51	48	276	11.8	7.54	17.89
Obese (>+2sd)	270	1666	76.4	60.67	87.19	37	234	10.7	7.06	15.96
Height-for-age status (HAZ)										
Stunting (<-2sd)	111	690	78.7	58.46	90.62	10	61	7.0	3.54	13.39
Normal (≥-2sd)	1710	10447	77.2	60.28	88.35	224	1379	10.2	7.89	13.08

Table 3.4.8 : Source of food for dinner among adolescents by socio-demographic characteristics and nutritional status

Socio-demographic Characteristics	Source of food for dinner									
	Hostel					Others				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	225	1263	8.8	1.48	38.01	96	569	3.9	2.86	5.43
Locality of school										
Urban	225	1263	8.8	1.48	38.01	96	569	3.9	2.86	5.43
Rural										
Sex										
Boys	217	1213	15.6	2.67	55.39	73	412	5.3	3.81	7.31
Girls	8	50	0.8	0.30	1.88	23	157	2.4	1.49	3.73
Ethnicity										
Malay	222	1249	8.8	1.50	38.27	94	557	3.9	2.85	5.44
Chinese						1	5	11.4	1.00	62.29
Indian						1	7	7.3	0.64	49.17
Bumiputera Sabah	1	3	5.0	0.59	31.34					
Bumiputera Sarawak	1	5	8.6	0.85	50.55					
Others	1	6	18.1	1.60	75.02					
School level										
Primary school	6	60	0.9	0.34	2.58	33	245	3.9	2.84	5.27
Secondary school	219	1203	14.9	2.35	56.03	63	323	4.0	2.39	6.64
Class										
Standard 4	3	21	0.9	0.24	3.44	18	105	4.6	3.62	5.80
Standard 5						10	88	4.2	2.18	7.86
Standard 6	3	39	2.0	0.49	7.80	5	52	2.7	1.27	5.66
Form 1	53	225	12.1	2.47	42.68	16	64	3.5	2.31	5.15
Form 2	60	286	16.8	2.52	61.33	15	67	3.9	2.80	5.54
Form 3	39	249	14.9	2.13	58.42	15	91	5.5	2.67	10.81
Form 4	39	217	15.4	2.31	58.20	12	63	4.5	1.71	11.24
Form 5	28	226	15.8	2.21	61.04	5	37	2.6	0.85	7.75
School session										
Morning session	79	461	4.9	1.29	17.18	63	375	4.0	3.07	5.26
Evening session										
Morning and evening session	146	802	15.8	1.97	63.85	33	194	3.8	2.13	6.76
BMI-for-age status (BAZ)										
Thinness (<-2sd)	7	34	3.7	0.69	17.92	3	22	2.4	0.71	7.73
Normal (≥-2sd - ≤+1sd)	145	803	9.0	1.50	38.99	62	356	4.0	2.85	5.52
Overweight (>+1sd - ≤+2sd)	40	233	9.9	1.61	42.45	17	103	4.4	2.05	9.19
Obese (>+2sd)	33	193	8.8	1.58	36.95	14	88	4.0	2.22	7.18
Height-for-age status (HAZ)										
Stunting (<-2sd)	14	82	9.3	1.18	46.88	7	44	5.0	2.20	11.08
Normal (≥-2sd)	210	1176	8.7	1.50	37.33	89	525	3.9	2.71	5.52

Table 3.4.9 : Reasons for skipping dinner among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Socio-demographic Characteristics	Reasons for skipping dinner									
	No food available					No appetite				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	148	894	15.1	12.72	17.89	462	2801	47.4	43.14	51.73
Locality of school										
Urban	148	894	15.1	12.72	17.89	462	2801	47.4	43.14	51.73
Rural										
Sex										
Boys	81	481	15.7	11.74	20.78	223	1368	44.7	39.37	50.23
Girls	67	412	14.5	11.37	18.23	239	1433	50.3	44.25	56.32
Ethnicity										
Malay	145	872	15.1	12.62	17.97	455	2749	47.6	43.08	52.20
Chinese						1	7	54.4	4.77	96.60
Indian	1	9	16.9	1.63	71.36	3	23	44.1	15.42	77.39
Bumiputera Sabah						2	15	51.7	10.68	90.55
Bumiputera Sarawak	1	9	39.2	3.76	91.39					
Others	1	4	21.6	5.68	55.76	1	8	40.8	8.42	83.77
School level										
Primary school	49	386	15.7	13.93	17.57	161	1319	53.5	47.81	59.04
Secondary school	99	507	14.7	10.99	19.48	301	1482	43.1	40.22	45.98
Class										
Standard 4	26	161	17.0	10.78	25.76	69	418	44.0	38.98	49.12
Standard 5	15	132	15.4	9.73	23.43	59	532	62.1	56.84	67.09
Standard 6	8	93	14.1	9.90	19.77	33	369	55.9	41.83	69.11
Form 1	19	76	10.4	5.92	17.54	100	395	54.0	48.10	59.71
Form 2	34	147	21.0	14.29	29.76	64	282	40.2	32.26	48.70
Form 3	18	105	14.8	9.32	22.68	44	270	37.9	31.64	44.54
Form 4	13	63	9.0	4.64	16.63	61	293	41.5	32.15	51.57
Form 5	15	115	19.5	12.97	28.29	32	243	41.1	37.48	44.87
School session										
Morning session	102	604	15.6	13.16	18.40	304	1866	48.2	42.30	54.12
Evening session	1	4	49.0	3.88	95.81					
Morning and evening session	45	285	14.1	10.19	19.13	158	936	46.1	41.70	50.64
BMI-for-age status (BAZ)										
Thinness (<-2sd)	11	58	19.7	7.63	42.26	26	159	54.2	36.90	70.48
Normal (≥-2sd - ≤+1sd)	87	516	15.1	11.93	18.92	283	1684	49.2	44.86	53.60
Overweight (>+1sd - ≤+2sd)	23	141	12.9	8.70	18.69	81	520	47.7	34.43	61.34
Obese (>+2sd)	27	179	16.4	10.28	25.18	72	438	40.2	33.64	47.17
Height-for-age status (HAZ)										
Stunting (<-2sd)	7	44	13.1	6.14	25.63	34	211	62.3	47.96	74.74
Normal (≥-2sd)	141	849	15.3	12.76	18.12	428	2590	46.5	42.13	50.95

Table 3.4.9 : Reasons for skipping dinner among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Socio-demographic Characteristics	Reasons for skipping dinner									
	No time					On diet/ control body weight				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	125	776	13.1	9.29	18.24	171	960	16.2	12.40	21.00
Locality of school										
Urban	125	776	13.1	9.29	18.24	171	960	16.2	12.40	21.00
Rural										
Sex										
Boys	83	507	16.6	11.52	23.29	75	438	14.3	11.69	17.45
Girls	42	269	9.4	5.43	15.87	96	522	18.3	12.21	26.51
Ethnicity										
Malay	122	761	13.2	9.28	18.40	167	934	16.2	12.42	20.79
Chinese						1	6	45.6	3.40	95.23
Indian	1	4	7.6	0.68	49.66	1	6	11.6	1.07	61.49
Bumiputera Sabah	2	10	36.7	6.15	83.66					
Bumiputera Sarawak						2	14	60.8	8.61	96.24
Others										
School level										
Primary school	49	375	15.2	10.72	21.08	30	253	10.3	7.71	13.51
Secondary school	76	401	11.6	6.61	19.73	141	707	20.5	16.18	25.72
Class										
Standard 4	30	179	18.8	14.60	23.88	14	85	9.0	6.13	13.00
Standard 5	10	92	10.7	5.57	19.72	9	83	9.7	4.32	20.47
Standard 6	9	104	15.8	4.67	41.69	7	84	12.8	6.01	25.06
Form 1	20	79	10.7	7.87	14.52	32	124	17.0	12.15	23.18
Form 2	13	59	8.4	3.22	20.33	34	144	20.6	13.81	29.55
Form 3	12	74	10.3	4.58	21.72	26	161	22.7	15.60	31.70
Form 4	20	106	15.0	5.62	34.49	36	180	25.5	19.53	32.56
Form 5	11	83	14.1	7.89	23.93	13	97	16.5	9.61	26.75
School session										
Morning session	76	464	12.0	9.67	14.77	116	634	16.4	11.92	22.10
Evening session						1	4	51.0	4.19	96.12
Morning and evening session	49	312	15.4	7.84	27.92	54	321	15.8	11.41	21.59
BMI-for-age status (BAZ)										
Thinness (<-2sd)	3	15	5.1	1.62	14.85	3	18	6.0	1.59	20.37
Normal (≥-2sd - ≤+1sd)	80	484	14.2	8.61	22.40	88	483	14.1	9.91	19.75
Overweight (>+1sd - ≤+2sd)	18	113	10.4	6.26	16.67	39	225	20.6	13.81	29.63
Obese (>+2sd)	23	150	13.7	9.90	18.76	41	234	21.5	15.55	28.88
Height-for-age status (HAZ)										
Stunting (<-2sd)	8	45	13.4	5.49	29.11	6	34	9.9	3.89	23.11
Normal (≥-2sd)	117	730	13.1	9.12	18.51	165	926	16.6	12.74	21.42

Table 3.4.9 : Reasons for skipping dinner among adolescents by socio-demographic characteristics and nutritional status

Socio-demographic Characteristics	Reasons for skipping dinner									
	No money					Others				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	27	136	2.3	1.25	4.22	63	341	5.8	4.25	7.81
Locality of school										
Urban	27	136	2.3	1.25	4.22	63	341	5.8	4.25	7.81
Rural										
Sex										
Boys	20	98	3.2	1.44	6.94	31	166	5.4	3.56	8.16
Girls	7	39	1.4	0.70	2.64	32	176	6.2	4.26	8.83
Ethnicity										
Malay	25	126	2.2	1.13	4.18	61	331	5.7	4.24	7.72
Chinese										
Indian						2	10	19.8	2.94	66.79
Bumiputera Sabah	1	3	11.6	1.02	62.77					
Bumiputera Sarawak										
Others	1	7	37.6	2.47	93.49					
School level										
Primary school	9	53	2.1	0.87	5.15	13	81	3.3	1.62	6.55
Secondary school	18	84	2.4	1.07	5.44	50	260	7.6	6.46	8.85
Class										
Standard 4	8	43	4.5	1.68	11.69	11	63	6.7	3.49	12.39
Standard 5						2	18	2.0	0.52	7.73
Standard 6	1	10	1.4	0.24	8.16					
Form 1	6	22	3.0	1.19	7.35	9	36	5.0	3.25	7.49
Form 2	7	29	4.2	1.49	11.17	9	39	5.6	2.83	10.72
Form 3	3	17	2.5	0.61	9.39	14	85	11.9	7.38	18.55
Form 4						13	63	9.0	5.41	14.50
Form 5	2	15	2.5	0.32	17.00	5	37	6.3	3.80	10.26
School session										
Morning session	18	88	2.3	1.18	4.35	40	216	5.6	3.68	8.35
Evening session										
Morning and evening session	9	48	2.4	0.93	5.94	23	126	6.2	4.20	9.04
BMI-for-age status (BAZ)										
Thinness (<-2sd)	3	17	5.9	1.94	16.66	5	27	9.1	3.92	19.60
Normal (≥-2sd - ≤+1sd)	13	68	2.0	0.90	4.32	34	185	5.4	3.74	7.77
Overweight (>+1sd - ≤+2sd)	7	34	3.1	1.35	7.13	12	58	5.3	2.55	10.57
Obese (>+2sd)	4	17	1.5	0.41	5.57	12	72	6.6	3.64	11.77
Height-for-age status (HAZ)										
Stunting (<-2sd)	1	5	1.4	0.18	9.55					
Normal (≥-2sd)	26	132	2.4	1.24	4.48	63	341	6.1	4.49	8.31

Table 3.4.10 : Prevalence of eating and/or drinking during recess time per week among adolescents by socio-demographics and nutritional status (Cont..)

Characteristics	Frequency of eating and/or drinking during recess time per week									
	5 days					1-4 days				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1700	10431	69.6	64.42	74.40	718	4255	28.4	23.86	33.44
Locality of school										
Urban	1700	10431	69.6	64.42	74.40	718	4255	28.4	23.86	33.44
Rural										
Sex										
Boys	909	5588	69.7	62.63	76.00	379	2205	27.5	21.88	33.97
Girls	791	4844	69.5	64.74	73.95	339	2050	29.4	25.22	34.02
Ethnicity										
Malay	1661	10202	69.5	64.33	74.23	706	4190	28.6	24.06	33.51
Chinese	5	33	82.1	26.04	98.36	1	7	17.9	1.64	73.96
Indian	13	66	67.4	41.44	85.77	4	25	25.3	10.50	49.47
Bumiputera Sabah	8	49	74.0	36.69	93.32	4	17	26.0	6.68	63.31
Bumiputera Sarawak	8	51	77.0	43.73	93.54	3	15	23.0	6.46	56.27
Others	5	31	100.0	100.00	100.00					
School level										
Primary school	568	4662	70.6	64.05	76.37	227	1822	27.6	21.26	34.96
Secondary school	1132	5769	68.9	60.96	75.86	491	2432	29.0	22.86	36.13
Class										
Standard 4	279	1722	71.3	63.19	78.19	105	638	26.4	19.88	34.22
Standard 5	164	1480	67.2	58.70	74.74	74	667	30.3	22.26	39.72
Standard 6	125	1460	73.5	62.33	82.26	48	517	26.0	17.03	37.58
Form 1	316	1262	64.9	56.98	72.13	159	631	32.5	26.47	39.13
Form 2	279	1250	70.9	60.43	79.48	110	477	27.1	18.91	37.09
Form 3	195	1198	70.1	59.80	78.74	81	487	28.5	20.49	38.19
Form 4	201	995	67.8	57.51	76.60	88	432	29.5	23.35	36.39
Form 5	141	1064	71.4	62.69	78.82	53	404	27.1	19.89	35.86
School session										
Morning session	1056	6586	67.6	61.69	73.09	489	2927	30.1	24.64	36.11
Evening session	4	19	81.4	37.54	96.95	1	4	18.6	3.05	62.46
Morning and evening session	639	3820	73.3	67.40	78.45	228	1323	25.4	21.06	30.24
BMI-for-age status (BAZ)										
Thinness (<-2sd)	112	681	73.2	65.38	79.86	36	215	23.1	17.95	29.17
Normal (≥-2sd - ≤+1sd)	1082	6565	71.3	66.25	75.91	422	2479	26.9	22.48	31.91
Overweight (>+1sd - ≤+2sd)	268	1651	65.8	57.37	73.26	133	815	32.5	25.16	40.71
Obese (>+2sd)	238	1535	66.2	57.44	73.93	126	732	31.6	24.12	40.11
Height-for-age status (HAZ)										
Stunting (<-2sd)	96	614	68.7	56.94	78.42	43	249	27.8	19.13	38.63
Normal (≥-2sd)	1603	9813	69.7	64.59	74.35	675	4006	28.5	23.99	33.37

Table 3.4.10 : Prevalence of eating and/or drinking during recess time per week among adolescents by socio-demographics and nutritional status

Characteristics	Frequency of eating and/or drinking during recess time per week				
	Never (0 day)				
	Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper	
WP Putrajaya	54	292	2.0	1.29	2.95
Locality of school					
Urban	54	292	2.0	1.29	2.95
Rural					
Sex					
Boys	42	221	2.8	1.61	4.66
Girls	12	72	1.0	0.44	2.39
Ethnicity					
Malay	53	285	1.9	1.28	2.94
Chinese					
Indian	1	7	7.3	0.64	49.17
Bumiputera Sabah					
Bumiputera Sarawak					
Others					
School level					
Primary school	17	121	1.8	1.22	2.74
Secondary school	37	172	2.1	1.08	3.88
Class					
Standard 4	10	55	2.3	1.36	3.84
Standard 5	6	55	2.5	1.25	4.92
Standard 6	1	10	0.5	0.07	3.89
Form 1	13	50	2.6	1.28	5.18
Form 2	9	37	2.1	0.75	5.64
Form 3	4	23	1.4	0.57	3.19
Form 4	8	40	2.8	0.81	8.99
Form 5	3	21	1.4	0.42	4.70
School session					
Morning session	40	223	2.3	1.50	3.48
Evening session					
Morning and evening session	14	70	1.3	0.48	3.63
BMI-for-age status (BAZ)					
Thinness (<-2sd)	6	34	3.7	1.35	9.61
Normal (≥-2sd - ≤+1sd)	30	161	1.7	1.00	3.04
Overweight (>+1sd - ≤+2sd)	7	45	1.8	0.84	3.80
Obese (>+2sd)	11	52	2.3	1.17	4.31
Height-for-age status (HAZ)					
Stunting (<-2sd)	5	31	3.5	1.19	9.80
Normal (≥-2sd)	49	261	1.9	1.18	2.90

Table 3.4.11 : Source of food during recess time among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Source of food during recess time									
	Bring from home					School canteen				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	549	3530	24.3	19.05	30.45	1612	9704	66.8	58.87	73.89
Locality of school										
Urban	549	3530	24.3	19.05	30.45	1612	9704	66.8	58.87	73.89
Rural										
Sex										
Boys	260	1612	20.9	14.10	29.87	812	4969	64.5	51.20	75.81
Girls	289	1918	28.1	22.76	34.22	800	4735	69.5	64.08	74.35
Ethnicity										
Malay	526	3393	23.8	18.62	29.97	1588	9564	67.2	59.05	74.39
Chinese	4	28	69.7	34.02	91.09	1	8	18.9	3.28	61.58
Indian	8	41	45.7	28.08	64.54	9	49	54.3	35.46	71.92
Bumiputera Sabah	5	29	46.5	16.96	78.67	5	30	48.3	17.45	80.45
Bumiputera Sarawak	4	28	41.7	14.96	74.35	6	34	51.0	21.12	80.19
Others	2	11	35.6	8.75	76.05	3	20	64.4	23.95	91.25
School level										
Primary school	258	2070	32.3	29.69	35.07	504	4168	65.1	62.50	67.56
Secondary school	291	1459	18.0	12.58	25.01	1108	5536	68.2	53.71	79.81
Class										
Standard 4	137	860	37.1	31.61	42.93	225	1370	59.1	54.23	63.80
Standard 5	74	672	31.6	27.92	35.46					
Standard 6	47	538	27.5	22.11	33.63					
Form 1	89	353	18.8	13.20	26.01	337	1337	71.1	60.22	79.94
Form 2	65	284	16.6	9.92	26.50	257	1131	66.2	46.21	81.66
Form 3	46	280	16.9	11.10	24.85	181	1096	66.1	44.22	82.69
Form 4	57	277	19.6	12.57	29.15	200	978	69.0	58.19	77.99
Form 5	34	264	18.2	9.89	31.11	133	994	68.5	55.32	79.18
School session										
Morning session	377	2442	25.9	21.07	31.48	1055	6420	68.2	62.50	73.36
Evening session	3	15	78.0	20.96	97.94	1	4	22.0	2.06	79.04
Morning and evening session	169	1073	21.1	13.53	31.36	555	3274	64.4	50.34	76.34
BMI-for-age status (BAZ)										
Thinness (<-2sd)	33	194	21.6	15.41	29.45	107	664	74.1	65.65	81.09
Normal (≥-2sd - ≤+1sd)	321	2030	22.7	17.51	28.99	1015	6068	68.0	59.23	75.60
Overweight (>+1sd - ≤+2sd)	93	620	25.3	18.57	33.58	263	1606	65.6	55.79	74.26
Obese (>+2sd)	102	686	30.6	22.19	40.50	226	1353	60.4	52.13	68.03
Height-for-age status (HAZ)										
Stunting (<-2sd)	31	201	23.7	16.29	33.17	93	567	66.7	54.95	76.73
Normal (≥-2sd)	518	3328	24.3	19.10	30.48	1519	9137	66.8	58.94	73.88

Table 3.4.11 : Source of food during recess time among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Restaurant/ kiosk					Hostel				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	35	213	1.5	0.99	2.18	150	833	5.7	0.77	32.42
Locality of school										
Urban	35	213	1.5	0.99	2.18	150	833	5.7	0.77	32.42
Rural										
Sex										
Boys	25	149	1.9	1.01	3.67	148	824	10.7	1.56	47.51
Girls	10	65	0.9	0.52	1.72	2	9	0.1	0.03	0.57
Ethnicity										
Malay	35	213	1.5	1.01	2.22	149	828	5.8	0.78	32.73
Chinese										
Indian										
Bumiputera Sabah										
Bumiputera Sarawak						1	5	7.3	0.73	45.94
Others										
School level										
Primary school	14	109	1.7	0.95	3.01	1	5	0.1	0.01	0.61
Secondary school	21	105	1.3	0.78	2.12	149	829	10.2	1.40	47.66
Class										
Standard 4	10	62	2.7	1.64	4.35	1	5	0.2	0.03	1.36
Standard 5	1	9	0.4	0.05	3.54					
Standard 6	3	38	1.9	0.47	7.58					
Form 1	6	24	1.3	0.65	2.44	28	121	6.5	0.84	35.98
Form 2	4	18	1.0	0.37	2.85	48	229	13.4	1.98	54.20
Form 3	7	39	2.4	0.92	5.95	34	220	13.2	1.54	59.88
Form 4	2	9	0.6	0.14	2.70	23	129	9.1	1.29	43.44
Form 5	2	15	1.1	0.26	4.13	16	129	8.9	1.32	41.60
School session										
Morning session	26	144	1.5	1.08	2.18	46	276	2.9	0.45	16.86
Evening session										
Morning and evening session	9	69	1.4	0.61	2.98	104	557	11.0	1.40	51.66
BMI-for-age status (BAZ)										
Thinness (<-2sd)	1	4	0.4	0.05	3.65	4	18	2.0	0.29	12.42
Normal (≥-2sd - ≤+1sd)	21	117	1.3	0.84	2.04	97	544	6.1	0.79	34.58
Overweight (>+1sd - ≤+2sd)	2	14	0.6	0.12	2.52	29	158	6.5	0.82	36.61
Obese (>+2sd)	11	79	3.5	1.50	7.96	20	113	5.0	0.81	25.60
Height-for-age status (HAZ)										
Stunting (<-2sd)	2	12	1.5	0.32	6.41	9	55	6.5	0.82	36.75
Normal (≥-2sd)	33	201	1.5	0.96	2.24	140	773	5.7	0.76	32.00

Table 3.4.11 : Source of food during recess time among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Source of food during school break time				
	Count	Estimated Population	Other Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	46	245	1.7	1.10	2.59
Locality of school					
Urban	46	245	1.7	1.10	2.59
Rural					
Sex					
Boys	28	155	2.0	1.25	3.21
Girls	18	91	1.3	0.69	2.56
Ethnicity					
Malay	44	238	1.7	1.10	2.53
Chinese	1	5	11.4	1.00	62.29
Indian					
Bumiputera Sabah					
Bumiputera Sarawak	1	3	5.3	0.63	32.81
Others					
School level					
Primary school	7	54	0.8	0.37	1.87
Secondary school	39	192	2.4	1.61	3.46
Class					
Standard 4	4	21	0.9	0.40	2.13
Standard 5	2	18	0.9	0.15	4.61
Standard 6	1	14	0.7	0.09	5.31
Form 1	12	46	2.4	1.53	3.88
Form 2	11	48	2.8	1.91	4.08
Form 3	4	24	1.4	0.65	3.17
Form 4	5	25	1.7	0.81	3.74
Form 5	7	49	3.4	1.21	9.12
School session					
Morning session	26	134	1.4	0.87	2.34
Evening session					
Morning and evening session	20	111	2.2	1.24	3.84
BMI-for-age status (BAZ)					
Thinness (<-2sd)	3	16	1.8	0.38	8.51
Normal (\geq -2sd - \leq +1sd)	30	168	1.9	1.22	2.90
Overweight ($>$ +1sd - \leq +2sd)	11	49	2.0	0.81	4.94
Obese ($>$ +2sd)	2	12	0.5	0.11	2.45
Height-for-age status (HAZ)					
Stunting (<-2sd)	2	14	1.6	0.37	6.76
Normal (\geq -2sd)	44	232	1.7	1.06	2.69

Table 3.4.12 : Prevalence of afternoon tea per week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Afternoon tea frequency per week									
	Daily (7 days)					1 to 6 days				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	555	3476	23.2	19.17	27.81	1522	9135	61.0	55.88	65.89
Locality of school										
Urban	555	3476	23.2	19.17	27.81	1522	9135	61.0	55.88	65.89
Rural										
Sex										
Boys	316	1987	24.8	19.99	30.34	790	4662	58.2	49.47	66.44
Girls	239	1489	21.4	17.59	25.72	732	4474	64.2	61.93	66.45
Ethnicity										
Malay	540	3397	23.2	19.02	27.87	1495	8973	61.1	55.96	66.09
Chinese	1	7	17.9	1.64	73.96	4	25	63.2	27.59	88.57
Indian	8	37	38.0	15.99	66.35	8	50	51.5	24.73	77.42
Bumiputera Sabah	2	7	10.3	1.15	53.48	8	41	62.1	25.61	88.60
Bumiputera Sarawak	3	23	35.6	10.12	73.01	4	24	36.3	12.21	70.01
Others	1	4	12.8	2.19	48.84	3	22	69.1	29.48	92.30
School level										
Primary school	233	1887	28.6	24.24	33.35	501	4027	61.0	56.85	64.93
Secondary school	322	1588	19.0	15.16	23.49	1021	5108	61.0	52.38	69.03
Class										
Standard 4	123	769	31.8	26.64	37.51	242	1469	60.8	56.03	65.36
Standard 5	70	642	29.2	16.86	45.53	149	1338	60.7	47.70	72.40
Standard 6	40	476	24.0	18.09	31.03	110	1221	61.4	54.61	67.86
Form 1	97	382	19.6	14.28	26.37	308	1222	62.8	55.17	69.78
Form 2	89	395	22.4	17.17	28.68	240	1053	59.7	47.08	71.08
Form 3	53	315	18.5	11.82	27.66	160	976	57.1	47.06	66.59
Form 4	44	210	14.3	9.16	21.64	193	951	64.8	54.78	73.68
Form 5	39	286	19.3	12.77	27.98	120	907	61.2	51.90	69.66
School session										
Morning session	373	2401	24.7	20.94	28.85	995	5984	61.5	58.03	64.85
Evening session	3	15	63.3	15.21	94.31	2	9	36.7	5.69	84.79
Morning and evening session	179	1060	20.3	13.97	28.59	525	3143	60.3	50.18	69.53
BMI-for-age status (BAZ)										
Thinness (<-2sd)	42	270	29.2	18.88	42.31	97	585	63.3	52.87	72.63
Normal (≥-2sd - ≤+1sd)	370	2266	24.6	19.69	30.29	921	5467	59.4	53.92	64.60
Overweight (>+1sd - ≤+2sd)	76	509	20.3	14.80	27.18	257	1553	61.9	53.86	69.27
Obese (>+2sd)	67	430	18.5	13.35	25.18	246	1516	65.4	57.14	72.79
Height-for-age status (HAZ)										
Stunting (<-2sd)	34	216	24.1	17.41	32.35	88	547	61.0	52.55	68.83
Normal (≥-2sd)	520	3255	23.1	19.09	27.73	1434	8588	61.0	55.72	66.08

Table 3.4.12 : Prevalence of afternoon tea per week among adolescents per week by socio-demographic characteristics and nutritional status

Characteristics	Afternoon tea frequency per week				
	Count	Did not take afternoon tea			
		Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper	
WP Putrajaya	395	2365	15.8	10.86	22.39
Locality of school					
Urban	395	2365	15.8	10.86	22.39
Rural					
Sex					
Boys	224	1361	17.0	9.40	28.78
Girls	171	1003	14.4	10.96	18.69
Ethnicity					
Malay	385	2304	15.7	10.78	22.32
Chinese	1	8	18.9	3.28	61.58
Indian	2	10	10.5	2.69	33.34
Bumiputera Sabah	2	18	27.6	5.21	72.56
Bumiputera Sarawak	4	19	28.1	9.14	60.40
Others	1	6	18.1	1.60	75.02
School level					
Primary school	78	691	10.5	9.67	11.30
Secondary school	317	1674	20.0	12.71	30.03
Class					
Standard 4	29	178	7.4	5.36	10.07
Standard 5	25	223	10.1	7.66	13.23
Standard 6	24	290	14.6	12.08	17.51
Form 1	84	343	17.6	10.99	26.99
Form 2	69	317	17.9	10.74	28.43
Form 3	67	418	24.4	16.20	35.12
Form 4	60	307	20.9	12.91	32.00
Form 5	37	291	19.6	11.08	32.26
School session					
Morning session	216	1345	13.8	11.01	17.22
Evening session					
Morning and evening session	178	1014	19.4	11.01	31.98
BMI-for-age status (BAZ)					
Thinness (<-2sd)	14	69	7.5	3.93	13.71
Normal (≥-2sd - ≤+1sd)	244	1475	16.0	11.14	22.49
Overweight (>+1sd - ≤+2sd)	75	448	17.8	10.83	27.99
Obese (>+2sd)	62	373	16.1	10.74	23.35
Height-for-age status (HAZ)					
Stunting (<-2sd)	23	134	14.9	8.16	25.65
Normal (≥-2sd)	372	2231	15.9	10.87	22.53

Table 3.4.13 : Source of food for afternoon tea among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Source of food for afternoon tea									
	Prepared at home					School canteen				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1330	8101	64.9	56.18	72.65	358	2260	18.1	13.36	24.04
Locality of school										
Urban	1330	8101	64.9	56.18	72.65	358	2260	18.1	13.36	24.04
Rural										
Sex										
Boys	635	3847	58.3	45.32	70.21	212	1332	20.2	15.10	26.46
Girls	695	4255	72.2	66.29	77.45	146	928	15.7	10.82	22.35
Ethnicity										
Malay	1297	7911	64.6	55.74	72.50	354	2234	18.2	13.42	24.29
Chinese	3	22	67.4	20.91	94.19					
Indian	11	57	65.0	39.83	83.91	3	19	22.2	7.37	50.72
Bumiputera Sabah	9	45	100.0	100.00	100.00					
Bumiputera Sarawak	6	41	86.5	35.91	98.66	1	6	13.5	1.34	64.09
Others	4	26	100.0	0.00	100.00					
School level										
Primary school	460	3768	64.2	57.10	70.69	188	1445	24.6	18.84	31.44
Secondary school	870	4333	65.5	50.07	78.18	170	815	12.3	8.43	17.65
Class										
Standard 4	222	1386	63.2	52.24	72.92	100	597	27.2	20.29	35.39
Standard 5	135	1231	62.2	55.29	68.57	61	542	27.4	22.16	33.28
Standard 6	103	1151	67.8	57.29	76.81	27	306	18.0	10.59	29.02
Form 1	254	1010	63.4	51.87	73.54	60	236	14.8	9.33	22.79
Form 2	204	893	63.0	43.53	79.06	50	214	15.1	8.84	24.51
Form 3	137	830	64.6	49.90	76.98	24	146	11.3	6.44	19.21
Form 4	169	817	70.6	48.25	86.10	21	106	9.2	5.64	14.65
Form 5	106	784	67.1	45.67	83.18	15	113	9.7	5.09	17.68
School session										
Morning session	917	5662	68.0	62.58	73.05	215	1338	16.1	11.69	21.72
Evening session	4	19	81.4	37.54	96.95	1	4	18.6	3.05	62.46
Morning and evening session	409	2420	58.4	40.10	74.61	142	918	22.1	14.75	31.84
BMI-for-age status (BAZ)										
Thinness (<-2sd)	90	561	66.2	53.86	76.61	25	151	17.8	7.82	35.49
Normal (≥-2sd - ≤+1sd)	827	4993	65.2	56.49	72.96	215	1334	17.4	12.90	23.10
Overweight (>+1sd - ≤+2sd)	213	1321	64.7	53.25	74.71	60	392	19.2	13.83	26.04
Obese (>+2sd)	199	1212	62.9	52.71	72.12	58	383	19.9	13.54	28.19
Height-for-age status (HAZ)										
Stunting (<-2sd)	79	487	64.4	50.01	76.63	20	133	17.6	11.41	26.25
Normal (≥-2sd)	1251	7615	64.9	56.38	72.59	338	2127	18.1	13.37	24.11

Table 3.4.13 : Source of food for afternoon tea among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Source of food for afternoon tea									
	Restaurant/ kiosk					Hostel				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	191	1124	9.0	7.03	11.45	83	467	3.7	0.72	17.33
Locality of school										
Urban	191	1124	9.0	7.03	11.45	83	467	3.7	0.72	17.33
Rural										
Sex										
Boys	108	627	9.5	7.05	12.67	81	455	6.9	1.36	28.44
Girls	83	498	8.4	5.95	11.85	2	12	0.2	0.05	0.92
Ethnicity										
Malay	189	1114	9.1	7.08	11.60	83	467	3.8	0.73	17.60
Chinese	1	6	18.5	1.80	73.69					
Indian	1	4	4.6	0.48	32.25					
Bumiputera Sabah										
Bumiputera Sarawak										
Others										
School level										
Primary school	55	452	7.7	5.42	10.80	2	21	0.4	0.09	1.42
Secondary school	136	672	10.2	7.51	13.61	81	446	6.7	1.22	29.63
Class										
Standard 4	27	159	7.2	4.27	12.02	1	8	0.3	0.05	2.66
Standard 5	13	116	5.8	3.38	9.91					
Standard 6	15	177	10.4	7.12	15.03	1	14	0.8	0.11	5.58
Form 1	50	192	12.1	8.93	16.09	16	67	4.2	1.19	13.89
Form 2	23	102	7.2	3.99	12.68	26	123	8.7	1.51	36.87
Form 3	24	144	11.2	5.53	21.30	13	83	6.5	0.93	33.65
Form 4	21	99	8.6	5.32	13.53	14	76	6.6	1.24	28.37
Form 5	18	136	11.6	7.19	18.18	12	97	8.3	1.21	39.84
School session										
Morning session	139	809	9.7	7.40	12.68	34	192	2.3	0.69	7.42
Evening session										
Morning and evening session	52	315	7.6	4.87	11.66	49	275	6.6	0.82	37.86
BMI-for-age status (BAZ)										
Thinness (<-2sd)	17	108	12.7	8.80	17.96	4	19	2.2	0.34	12.66
Normal (≥-2sd - ≤+1sd)	125	698	9.1	6.85	12.01	54	312	4.1	0.85	17.35
Overweight (>+1sd - ≤+2sd)	22	134	6.6	4.02	10.52	12	62	3.0	0.50	16.29
Obese (>+2sd)	27	185	9.6	6.65	13.68	13	75	3.9	0.56	22.39
Height-for-age status (HAZ)										
Stunting (<-2sd)	13	84	11.2	5.93	20.11	4	27	3.6	0.38	26.32
Normal (≥-2sd)	178	1040	8.9	6.67	11.68	78	436	3.7	0.74	16.67

Table 3.4.13 : Source of food for afternoon tea among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Source of food for afternoon tea				
	Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	93	538	4.3	2.74	6.71
Locality of school					
Urban	93	538	4.3	2.74	6.71
Rural					
Sex					
Boys	60	339	5.1	2.71	9.52
Girls	33	199	3.4	2.41	4.74
Ethnicity					
Malay	91	526	4.3	2.70	6.77
Chinese	1	5	14.1	1.32	66.85
Indian	1	7	8.2	0.71	52.52
Bumiputera Sabah					
Bumiputera Sarawak					
Others					
School level					
Primary school	22	186	3.2	1.75	5.65
Secondary school	71	352	5.3	2.95	9.42
Class					
Standard 4	8	45	2.0	0.89	4.60
Standard 5	10	92	4.6	1.76	11.63
Standard 6	4	49	2.9	1.02	7.94
Form 1	22	88	5.5	3.73	8.05
Form 2	19	85	6.0	3.60	9.91
Form 3	14	82	6.4	3.08	12.90
Form 4	11	58	5.0	1.14	19.38
Form 5	5	39	3.4	1.49	7.36
School session					
Morning session	51	321	3.9	2.43	6.05
Evening session					
Morning and evening session	42	218	5.2	2.75	9.79
BMI-for-age status (BAZ)					
Thinness (<-2sd)	2	10	1.2	0.28	4.99
Normal (≥-2sd - ≤+1sd)	57	324	4.2	2.63	6.72
Overweight (>+1sd - ≤+2sd)	22	132	6.5	3.03	13.33
Obese (>+2sd)	12	72	3.7	1.83	7.40
Height-for-age status (HAZ)					
Stunting (<-2sd)	4	24	3.2	1.27	7.78
Normal (≥-2sd)	89	514	4.4	2.72	6.99

Table 3.4.14 : Prevalence of heavy meal after dinner per week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Heavy meal after dinner frequency per week									
	Daily (7 days)					1 to 6 days				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	206	1258	8.4	7.12	9.89	1772	10695	71.4	67.34	75.12
Locality of school										
Urban	206	1258	8.4	7.12	9.89	1772	10695	71.4	67.34	75.12
Rural										
Sex										
Boys	128	776	9.7	8.18	11.43	1001	5979	74.6	70.38	78.39
Girls	78	482	6.9	5.42	8.79	771	4716	67.7	63.02	72.06
Ethnicity										
Malay	202	1237	8.4	7.12	9.95	1733	10467	71.3	67.21	75.06
Chinese	1	7	17.9	1.64	73.96	3	19	48.2	18.48	79.29
Indian						14	78	79.8	53.32	93.16
Bumiputera Sabah	2	8	11.5	3.03	35.11	9	55	83.1	50.24	96.00
Bumiputera Sarawak	1	6	9.7	0.99	53.57	10	60	90.3	46.43	99.01
Others						3	17	53.1	16.57	86.58
School level										
Primary school	82	628	9.5	7.11	12.59	568	4649	70.4	65.31	75.00
Secondary school	124	631	7.5	6.90	8.22	1204	6046	72.2	66.09	77.55
Class										
Standard 4	49	290	12.0	8.52	16.65	269	1641	68.0	58.34	76.25
Standard 5	21	190	8.6	4.63	15.51	171	1544	70.1	58.52	79.58
Standard 6	12	148	7.4	6.33	8.70	128	1463	73.6	63.74	81.62
Form 1	36	139	7.1	4.86	10.37	360	1432	73.5	68.08	78.35
Form 2	29	131	7.4	4.86	11.26	295	1303	73.9	64.25	81.64
Form 3	21	129	7.6	5.43	10.48	197	1197	70.1	60.88	77.91
Form 4	20	98	6.7	4.00	10.96	217	1082	73.8	65.73	80.48
Form 5	18	133	8.9	5.87	13.32	135	1031	69.3	58.93	77.97
School session										
Morning session	140	881	9.0	7.18	11.34	1146	6968	71.6	67.92	74.95
Evening session	1	4	19.2	3.12	63.69	4	19	80.8	36.31	96.88
Morning and evening session	65	373	7.2	6.17	8.28	622	3709	71.1	62.42	78.45
BMI-for-age status (BAZ)										
Thinness (<-2sd)	27	159	17.1	12.68	22.77	102	596	64.2	53.91	73.25
Normal (\geq -2sd - \leq +1sd)	129	784	8.5	7.31	9.88	1106	6620	71.9	68.32	75.21
Overweight ($>$ +1sd - \leq +2sd)	28	168	6.7	4.60	9.68	286	1771	70.5	64.03	76.28
Obese ($>$ +2sd)	22	147	6.3	4.07	9.70	277	1694	73.0	65.55	79.41
Height-for-age status (HAZ)										
Stunting (<-2sd)	18	102	11.3	6.92	17.99	100	633	70.6	60.40	79.10
Normal (\geq -2sd)	187	1152	8.2	6.84	9.75	1672	10062	71.5	67.44	75.17

Table 3.4.14 : Prevalence of heavy meal after dinner per week among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Heavy meal after dinner frequency per week				
	Did not take heavy meal after dinner				
	Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper	
WP Putrajaya	495	3028	20.2	16.72	24.22
Locality of school					
Urban	495	3028	20.2	16.72	24.22
Rural					
Sex					
Boys	202	1260	15.7	12.39	19.75
Girls	293	1768	25.4	21.35	29.88
Ethnicity					
Malay	486	2977	20.3	16.75	24.33
Chinese	2	14	33.9	10.29	69.60
Indian	4	20	20.2	6.84	46.68
Bumiputera Sabah	1	4	5.4	0.64	33.44
Bumiputera Sarawak					
Others	2	15	46.9	13.42	83.43
School level					
Primary school	162	1329	20.1	16.07	24.88
Secondary school	333	1700	20.3	15.15	26.62
Class					
Standard 4	76	484	20.0	12.97	29.66
Standard 5	52	468	21.3	13.48	31.89
Standard 6	34	376	18.9	11.42	29.72
Form 1	93	376	19.3	14.44	25.38
Form 2	74	330	18.7	11.36	29.17
Form 3	62	382	22.3	14.18	33.36
Form 4	60	287	19.5	13.17	28.02
Form 5	44	325	21.8	14.61	31.28
School session					
Morning session	299	1888	19.4	16.50	22.65
Evening session					
Morning and evening session	195	1135	21.8	14.75	30.88
BMI-for-age status (BAZ)					
Thinness (<-2sd)	25	174	18.7	12.01	27.92
Normal (≥-2sd - ≤+1sd)	300	1804	19.6	16.36	23.28
Overweight (>+1sd - ≤+2sd)	94	572	22.8	16.61	30.37
Obese (>+2sd)	76	479	20.6	15.68	26.67
Height-for-age status (HAZ)					
Stunting (<-2sd)	27	162	18.1	11.64	26.97
Normal (≥-2sd)	468	2866	20.4	16.90	24.31

Table 3.4.15 : Source of food for eating heavy meal after dinner among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Source of food for eating for heavy meal after dinner									
	Home					Restaurant/kiosk				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1039	6214	53.0	42.24	63.49	611	3876	33.1	27.22	39.47
Locality of school										
Urban	1039	6214	53.0	42.24	63.49	611	3876	33.1	27.22	39.47
Rural										
Sex										
Boys	486	2860	42.9	29.12	57.93	371	2386	35.8	25.66	47.43
Girls	553	3354	66.3	61.73	70.50	240	1490	29.4	25.92	33.20
Ethnicity										
Malay	1020	6100	53.1	42.25	63.64	595	3784	32.9	27.11	39.32
Chinese						3	22	82.7	26.42	98.45
Indian	9	48	61.1	32.22	83.86	4	21	27.6	11.22	53.52
Bumiputera Sabah	4	28	46.6	15.13	81.09	5	28	46.7	15.47	80.76
Bumiputera Sarawak	4	28	52.1	20.29	82.31	4	21	38.8	12.96	72.99
Others	2	11	65.9	10.71	96.89					
School level										
Primary school	346	2788	54.4	49.06	59.59	238	2011	39.2	34.99	43.60
Secondary school	693	3426	51.9	33.89	69.49	373	1865	28.3	20.77	37.22
Class										
Standard 4	167	1017	55.6	51.02	60.06	108	650	35.5	30.26	41.17
Standard 5	96	861	50.2	42.03	58.37	80	729	42.5	34.23	51.29
Standard 6	83	910	57.5	46.43	67.86	50	631	39.9	29.59	51.11
Form 1	225	891	57.6	43.18	70.85	109	427	27.6	20.25	36.39
Form 2	155	676	48.0	29.60	66.92	91	399	28.3	18.80	40.18
Form 3	109	661	50.8	31.47	69.84	62	374	28.7	20.20	38.97
Form 4	124	596	50.7	29.88	71.30	66	330	28.0	20.85	36.58
Form 5	80	602	51.7	30.29	72.54	45	337	28.9	16.98	44.80
School session										
Morning session	713	4260	55.3	49.60	60.77	420	2676	34.7	30.76	38.86
Evening session	2	9	37.1	10.25	75.24	3	15	62.9	24.76	89.75
Morning and evening session	324	1945	48.7	28.08	69.85	188	1186	29.7	19.29	42.76
BMI-for-age status (BAZ)										
Thinness (<-2sd)	75	447	60.8	53.49	67.70	38	226	30.8	24.47	37.87
Normal (\geq -2sd - \leq +1sd)	655	3871	53.3	42.53	63.83	368	2330	32.1	26.20	38.62
Overweight ($>$ +1sd - \leq +2sd)	153	964	50.8	34.51	66.86	99	623	32.8	22.47	45.09
Obese ($>$ +2sd)	156	932	51.3	39.61	62.78	105	684	37.6	29.20	46.81
Height-for-age status (HAZ)										
Stunting (<-2sd)	73	461	64.1	44.09	80.18	25	151	21.0	13.00	32.15
Normal (\geq -2sd)	966	5754	52.3	41.85	62.55	586	3725	33.9	27.95	40.32

Table 3.4.15 : Source of food for eating heavy meal after dinner among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Source of food for eating heavy meal after dinner									
	Hostel					Others				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	162	899	7.7	1.31	34.23	127	736	6.3	4.08	9.53
Locality of school										
Urban	162	899	7.7	1.31	34.23	127	736	6.3	4.08	9.53
Rural										
Sex										
Boys	156	869	13.0	2.32	48.66	97	547	8.2	5.17	12.78
Girls	6	30	0.6	0.25	1.37	30	189	3.7	2.26	6.10
Ethnicity										
Malay	159	880	7.7	1.29	34.49	125	727	6.3	4.10	9.66
Chinese						1	5	17.3	1.55	73.58
Indian	1	9	11.3	1.08	59.77					
Bumiputera Sabah						1	4	6.6	0.62	44.86
Bumiputera Sarawak	1	5	9.1	0.89	52.54					
Others	1	6	34.1	3.11	89.29					
School level										
Primary school	7	45	0.9	0.54	1.40	38	284	5.5	3.78	8.05
Secondary school	155	854	12.9	2.11	50.68	89	452	6.8	3.58	12.70
Class										
Standard 4	6	36	2.0	1.15	3.34	21	127	6.9	4.14	11.38
Standard 5	1	9	0.5	0.07	3.89	13	116	6.7	4.64	9.70
Standard 6						4	42	2.6	0.51	12.60
Form 1	29	124	8.0	1.53	32.89	26	105	6.8	3.16	13.90
Form 2	51	240	17.0	3.01	57.52	21	95	6.7	3.72	11.86
Form 3	26	165	12.6	1.84	52.76	17	103	7.9	4.57	13.38
Form 4	28	156	13.2	2.13	51.75	18	94	8.0	3.66	16.61
Form 5	21	170	14.6	2.00	58.97	7	55	4.7	1.74	12.14
School session										
Morning session	55	310	4.0	1.03	14.47	76	464	6.0	4.55	7.93
Evening session										
Morning and evening session	107	589	14.7	2.06	58.76	51	271	6.8	3.00	14.69
BMI-for-age status (BAZ)										
Thinness (<-2sd)	7	33	4.5	0.96	18.50	5	29	3.9	1.43	10.30
Normal (\geq -2sd - \leq +1sd)	100	549	7.6	1.24	34.73	88	509	7.0	4.51	10.75
Overweight (>+1sd - \leq +2sd)	31	177	9.3	1.50	40.77	24	136	7.1	3.96	12.56
Obese (>+2sd)	24	140	7.7	1.48	31.75	10	62	3.4	1.52	7.54
Height-for-age status (HAZ)										
Stunting (<-2sd)	14	82	11.4	1.74	48.41	3	25	3.4	0.67	15.94
Normal (\geq -2sd)	147	812	7.4	1.27	33.02	124	711	6.5	4.14	9.95

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Table 3.4.16 : Prevalence of fast food consumption per week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Frequency of fast food consumption per week									
	Daily (7 days)					1 to 6 days				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
Lower				Upper	Lower				Upper	
WP Putrajaya	56	343	2.3	1.40	3.72	2197	13325	89.0	87.46	90.31
Locality of school										
Urban	56	343	2.3	1.40	3.72	2197	13325	89.0	87.46	90.31
Rural										
Sex										
Boys	25	134	1.7	0.98	2.83	1187	7173	89.5	86.93	91.66
Girls	31	208	3.0	1.60	5.54	1010	6152	88.3	86.08	90.23
Ethnicity										
Malay	53	326	2.2	1.38	3.57	2155	13092	89.2	87.55	90.66
Chinese	1	7	17.9	1.64	73.96	3	19	48.2	18.48	79.29
Indian						16	87	89.3	62.63	97.64
Bumiputera Sabah	2	9	14.1	2.75	48.89	9	43	64.3	24.00	91.12
Bumiputera Sarawak						9	52	79.0	38.63	95.75
Others						5	31	100.0	100.00	100.00
School level										
Primary school	31	229	3.5	2.19	5.47	733	5979	90.5	88.27	92.36
Secondary school	25	113	1.4	0.63	2.89	1464	7346	87.7	86.31	89.04
Class										
Standard 4	20	124	5.1	3.18	8.14	352	2154	89.2	85.14	92.22
Standard 5	8	76	3.5	1.03	11.00	222	1997	90.7	85.24	94.26
Standard 6	3	29	1.5	0.41	5.08	159	1827	91.9	87.76	94.78
Form 1	7	26	1.4	0.54	3.39	447	1778	91.5	90.35	92.58
Form 2	7	28	1.6	0.49	5.02	347	1542	87.4	82.62	91.02
Form 3	5	29	1.7	0.51	5.62	236	1438	84.2	79.95	87.64
Form 4	6	29	2.0	0.73	5.42	264	1303	88.8	84.25	92.14
Form 5						170	1285	86.3	80.53	90.52
School session										
Morning session	42	264	2.7	1.65	4.45	1416	8716	89.5	88.08	90.80
Evening session	1	6	25.5	2.40	82.64	4	17	74.5	17.36	97.60
Morning and evening session	13	72	1.4	0.68	2.80	777	4591	88.1	84.92	90.66
BMI-for-age status (BAZ)										
Thinness (<-2sd)	10	67	7.3	3.70	13.77	135	805	86.6	78.98	91.79
Normal (≥-2sd - ≤+1sd)	30	193	2.1	0.99	4.42	1371	8233	89.5	88.05	90.71
Overweight (>+1sd - ≤+2sd)	5	26	1.0	0.35	3.02	360	2212	88.1	83.10	91.76
Obese (>+2sd)	11	56	2.4	0.98	5.72	330	2060	88.8	82.47	93.07
Height-for-age status (HAZ)										
Stunting (<-2sd)	6	29	3.3	1.20	8.72	126	776	86.5	75.03	93.17
Normal (≥-2sd)	50	313	2.2	1.28	3.83	2070	12544	89.1	87.67	90.42

Table 3.4.16 : Prevalence of fast food consumption per week among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Frequency of fast food consumption per week				
	Count	Estimated Population	Prevalence (%)	Did not ate fast food	
				Lower	Upper
WP Putrajaya	219	1310	8.7	6.87	11.07
Locality of school					
Urban	219	1310	8.7	6.87	11.07
Rural					
Sex					
Boys	118	705	8.8	6.35	12.06
Girls	101	606	8.7	6.75	11.14
Ethnicity					
Malay	212	1258	8.6	6.61	11.05
Chinese	2	14	33.9	10.29	69.60
Indian	2	10	10.7	2.36	37.37
Bumiputera Sabah	1	14	21.6	2.38	75.66
Bumiputera Sarawak	2	14	21.0	4.25	61.37
Others					
School level					
Primary school	48	397	6.0	3.76	9.49
Secondary school	171	913	10.9	9.45	12.56
Class					
Standard 4	22	138	5.7	3.41	9.37
Standard 5	14	129	5.8	2.77	11.90
Standard 6	12	131	6.6	3.99	10.69
Form 1	34	138	7.1	5.35	9.38
Form 2	44	194	11.0	7.88	15.18
Form 3	39	241	14.1	10.01	19.54
Form 4	27	135	9.2	7.23	11.66
Form 5	27	204	13.7	9.48	19.47
School session					
Morning session	127	756	7.8	5.97	10.05
Evening session					
Morning and evening session	91	549	10.5	7.55	14.49
BMI-for-age status (BAZ)					
Thinness (<-2sd)	9	57	6.1	3.01	12.02
Normal (≥-2sd - ≤+1sd)	133	777	8.4	6.74	10.52
Overweight (>+1sd - ≤+2sd)	43	273	10.9	7.44	15.61
Obese (>+2sd)	34	204	8.8	5.24	14.35
Height-for-age status (HAZ)					
Stunting (<-2sd)	13	92	10.2	3.96	23.91
Normal (≥-2sd)	206	1219	8.7	6.79	10.97

Table 3.4.17 : Practice of bring food to school among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Bring food to school practices									
	Everyday					Occasionally				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
Lower				Upper	Lower				Upper	
WP Putrajaya	309	1901	12.7	10.87	14.77	1385	8652	57.7	50.65	64.54
Locality of school										
Urban	309	1901	12.7	10.87	14.77	1385	8652	57.7	50.65	64.54
Rural										
Sex										
Boys	176	1046	13.1	10.91	15.54	645	4027	50.2	42.38	58.07
Girls	133	855	12.3	9.32	16.01	740	4625	66.4	59.92	72.31
Ethnicity										
Malay	294	1813	12.3	10.56	14.39	1360	8498	57.9	50.76	64.69
Chinese	3	22	54.7	22.87	83.08	3	18	45.3	16.92	77.13
Indian	8	39	39.6	22.79	59.25	8	47	48.6	21.58	76.54
Bumiputera Sabah						6	43	64.8	31.68	87.92
Bumiputera Sarawak	3	21	32.2	9.45	68.29	6	34	51.3	21.30	80.35
Others	1	7	22.8	2.10	80.23	2	12	36.9	4.19	88.64
School level										
Primary school	102	801	12.1	9.96	14.70	550	4482	67.9	66.29	69.38
Secondary school	207	1100	13.1	10.51	16.29	835	4170	49.8	42.13	57.43
Class										
Standard 4	58	357	14.8	10.62	20.20	269	1675	69.3	67.00	71.60
Standard 5	25	224	10.2	6.95	14.61	166	1515	68.8	62.50	74.44
Standard 6	19	221	11.1	6.94	17.32	115	1292	65.0	61.02	68.82
Form 1	53	213	11.0	8.59	13.88	252	1000	51.3	47.07	55.59
Form 2	44	193	11.0	7.25	16.21	195	865	49.0	39.27	58.89
Form 3	35	215	12.6	8.53	18.14	129	789	46.2	32.12	60.88
Form 4	37	183	12.5	8.56	17.78	166	808	55.0	45.30	64.42
Form 5	38	296	19.9	13.43	28.38	93	708	47.5	37.40	57.87
School session										
Morning session	197	1185	12.2	9.98	14.76	884	5637	57.9	50.55	64.92
Evening session	3	15	62.9	24.76	89.75	1	4	19.2	3.12	63.69
Morning and evening session	109	702	13.5	10.55	17.01	500	3010	57.7	47.34	67.42
BMI-for-age status (BAZ)										
Thinness (<-2sd)	19	111	12.0	7.28	19.10	86	531	57.1	46.73	66.90
Normal (≥-2sd - ≤+1sd)	188	1132	12.3	10.65	14.14	847	5302	57.6	49.57	65.20
Overweight (>+1sd - ≤+2sd)	51	341	13.6	9.48	19.07	234	1423	56.7	48.38	64.63
Obese (>+2sd)	51	317	13.7	9.45	19.42	217	1382	59.6	49.95	68.53
Height-for-age status (HAZ)										
Stunting (<-2sd)	23	145	16.2	9.18	26.90	80	512	57.1	47.51	66.21
Normal (≥-2sd)	286	1756	12.5	10.44	14.83	1305	8139	57.8	50.71	64.60

Table 3.4.17 : Practice of bring food to school among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Bring food to school practices				
	Count	Estimated Population	Never Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	779	4429	29.6	22.85	37.30
Locality of school					
Urban	779	4429	29.6	22.85	37.30
Rural					
Sex					
Boys	510	2943	36.7	29.20	44.94
Girls	269	1486	21.3	15.73	28.25
Ethnicity					
Malay	767	4370	29.8	23.06	37.49
Chinese					
Indian	2	11	11.8	2.57	40.29
Bumiputera Sabah	6	23	35.2	12.08	68.32
Bumiputera Sarawak	2	11	16.6	3.18	54.55
Others	2	13	40.3	6.47	86.84
School level					
Primary school	160	1322	20.0	17.77	22.45
Secondary school	619	3107	37.1	28.56	46.51
Class					
Standard 4	67	383	15.9	11.49	21.53
Standard 5	53	464	21.1	15.72	27.62
Standard 6	40	474	23.9	17.36	31.88
Form 1	184	734	37.7	32.90	42.75
Form 2	159	706	40.0	27.89	53.49
Form 3	116	705	41.2	27.23	56.85
Form 4	94	477	32.5	21.97	45.15
Form 5	66	485	32.6	21.88	45.51
School session					
Morning session	504	2914	29.9	23.02	37.89
Evening session	1	4	17.9	1.57	74.84
Morning and evening session	273	1505	28.8	19.25	40.82
BMI-for-age status (BAZ)					
Thinness (<-2sd)	49	287	30.9	22.27	41.13
Normal (≥-2sd - ≤+1sd)	500	2775	30.1	23.19	38.12
Overweight (>+1sd - ≤+2sd)	123	747	29.7	21.71	39.25
Obese (>+2sd)	107	620	26.7	18.70	36.66
Height-for-age status (HAZ)					
Stunting (<-2sd)	42	240	26.7	20.31	34.27
Normal (≥-2sd)	736	4184	29.7	22.85	37.64

Table 3.4.18 : Type of food usually bring to school among adolescents by socio-demographic characteristics nutritional status (Cont..)

Characteristics	Type of food									
	Nasi lemak/fried rice/mixed rice					Noodle/Vermicelli/ Kueh Teow				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	697	4297	41.7	35.68	47.88	325	2032	19.7	16.38	23.49
Locality of school										
Urban	697	4297	41.7	35.68	47.88	325	2032	19.7	16.38	23.49
Rural										
Sex										
Boys	334	2063	41.8	31.80	52.43	132	863	17.5	13.06	22.99
Girls	363	2234	41.6	35.28	48.12	193	1168	21.7	17.90	26.12
Ethnicity										
Malay	681	4202	41.7	35.63	48.03	316	1971	19.6	16.27	23.33
Chinese						1	7	17.9	1.64	73.96
Indian	4	24	27.4	10.95	53.69	4	19	22.2	9.06	45.05
Bumiputera Sabah	4	23	53.2	11.88	90.54	1	14	33.3	3.95	85.86
Bumiputera Sarawak	5	30	57.8	19.01	88.88	1	9	17.6	1.84	70.85
Others	3	19	100.0	0.00	100.00	2	11	59.6	16.19	91.85
School level										
Primary school	248	2016	39.1	35.74	42.55	118	975	18.9	15.37	23.03
Secondary school	449	2281	44.2	33.62	55.35	207	1057	20.5	15.25	26.94
Class										
Standard 4	116	699	35.4	29.16	42.08	53	332	16.8	12.91	21.59
Standard 5	80	722	42.6	35.11	50.46	42	376	22.2	17.23	28.11
Standard 6	52	595	40.1	33.28	47.23	23	266	17.9	11.56	26.73
Form 1	122	481	40.5	33.68	47.67	55	217	18.3	13.75	23.87
Form 2	99	432	43.5	31.97	55.77	47	208	20.9	16.10	26.75
Form 3	76	462	46.6	32.01	61.82	31	188	19.0	11.36	30.06
Form 4	90	434	43.9	33.66	54.61	41	195	19.7	14.28	26.62
Form 5	62	472	47.3	29.42	65.94	33	248	24.9	15.55	37.36
School session										
Morning session	461	2865	42.8	38.36	47.43	213	1354	20.2	16.39	24.75
Evening session	2	9	46.3	13.41	82.75					
Morning and evening session	234	1423	39.4	27.18	53.18	112	678	18.8	12.87	26.57
BMI-for-age status (BAZ)										
Thinness (<-2sd)	49	297	47.0	34.86	59.45	19	112	17.8	12.05	25.42
Normal (≥-2sd - ≤+1sd)	426	2642	42.0	35.32	49.08	193	1185	18.9	14.94	23.53
Overweight (>+1sd - ≤+2sd)	112	669	38.7	31.50	46.33	54	364	21.0	14.24	29.94
Obese (>+2sd)	110	688	41.6	32.65	51.13	58	356	21.5	16.24	27.92
Height-for-age status (HAZ)										
Stunting (<-2sd)	50	316	48.4	33.45	63.69	16	108	16.6	8.69	29.43
Normal (≥-2sd)	647	3981	41.2	35.29	47.36	309	1923	19.9	16.25	24.14

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Table 3.4.18 : Type of food usually bring to school among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of food									
	Bread/bun/sandwich					Nugget/sausage/burger				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	457	2960	28.7	22.58	35.69	243	1609	15.6	12.37	19.47
Locality of school										
Urban	457	2960	28.7	22.58	35.69	243	1609	15.6	12.37	19.47
Rural										
Sex										
Boys	182	1169	23.7	17.68	30.88	104	688	13.9	10.19	18.74
Girls	275	1791	33.3	26.11	41.40	139	921	17.1	13.95	20.85
Ethnicity										
Malay	447	2897	28.8	22.59	35.81	241	1601	15.9	12.57	19.88
Chinese	3	21	51.8	20.71	81.52					
Indian	5	23	26.7	13.59	45.86	1	4	4.6	0.52	31.14
Bumiputera Sabah	1	11	24.9	2.56	80.66	1	4	9.3	0.83	55.83
Bumiputera Sarawak	1	8	15.3	1.55	67.28					
Others										
School level										
Primary school	185	1590	30.8	20.25	43.92	115	978	19.0	14.68	24.14
Secondary school	272	1369	26.5	22.28	31.28	128	631	12.2	9.47	15.65
Class										
Standard 4	82	546	27.6	16.94	41.73	49	301	15.2	9.39	23.80
Standard 5	58	549	32.4	20.19	47.56	34	320	18.9	14.63	23.99
Standard 6	45	495	33.3	19.86	50.20	32	356	24.0	17.42	32.11
Form 1	76	301	25.4	20.30	31.21	44	174	14.7	12.13	17.59
Form 2	60	269	27.1	19.33	36.60	28	125	12.6	8.99	17.45
Form 3	45	281	28.3	19.09	39.82	17	100	10.1	6.07	16.40
Form 4	64	313	31.6	24.91	39.14	22	104	10.5	6.74	16.06
Form 5	27	205	20.5	11.84	33.24	17	127	12.8	6.69	22.97
School session										
Morning session	292	1977	29.6	21.33	39.37	162	1059	15.8	12.99	19.14
Evening session	1	6	31.0	2.67	88.07	1	6	31.0	2.67	88.07
Morning and evening session	164	977	27.1	22.04	32.77	80	544	15.1	9.11	23.94
BMI-for-age status (BAZ)										
Thinness (<-2sd)	18	140	22.1	13.03	34.85	13	82	12.9	7.12	22.37
Normal (≥-2sd - ≤+1sd)	290	1854	29.5	22.66	37.41	145	953	15.2	12.00	18.97
Overweight (>+1sd - ≤+2sd)	74	476	27.5	20.38	35.90	37	251	14.5	9.49	21.52
Obese (>+2sd)	75	491	29.7	21.10	39.95	48	323	19.6	13.22	27.93
Height-for-age status (HAZ)										
Stunting (<-2sd)	23	141	21.7	13.07	33.82	13	79	12.1	6.93	20.14
Normal (≥-2sd)	434	2818	29.2	23.09	36.08	230	1530	15.8	12.44	19.94

Table 3.4.18 : Type of food usually bring to school among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of food									
	Biscuit					Fruits				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	187	1129	10.9	5.04	22.16	62	396	3.8	2.54	5.75
Locality of school										
Urban	187	1129	10.9	5.04	22.16	62	396	3.8	2.54	5.75
Rural										
Sex	112	668	13.5	3.76	38.48	24	123	2.5	1.54	3.98
Boys	75	461	8.6	6.37	11.47	38	273	5.1	2.95	8.62
Girls										
Ethnicity										
Malay	182	1100	10.9	4.92	22.50	58	378	3.8	2.41	5.80
Chinese	1	7	17.9	1.64	73.96					
Indian	3	16	18.4	5.42	46.94	1	4	4.8	0.92	21.84
Bumiputera Sabah	1	6	13.5	1.24	66.08	1	4	8.3	0.73	52.69
Bumiputera Sarawak						2	10	19.0	3.38	61.16
Others										
School level										
Primary school	51	383	7.4	5.31	10.30	41	301	5.8	4.13	8.20
Secondary school	136	746	14.5	4.51	37.70	21	94	1.8	1.41	2.38
Class										
Standard 4	34	219	11.1	8.06	15.05	25	153	7.7	5.04	11.70
Standard 5	10	92	5.4	3.43	8.53	12	109	6.4	3.69	10.99
Standard 6	7	72	4.8	2.38	9.58	4	39	2.6	0.98	6.96
Form 1	32	132	11.1	4.90	23.39	10	39	3.3	1.85	5.82
Form 2	32	147	14.8	5.95	32.45	5	22	2.2	0.64	7.05
Form 3	20	128	12.9	3.41	38.19	3	20	2.0	0.58	6.53
Form 4	29	154	15.5	4.95	39.29	3	14	1.4	0.61	3.34
Form 5	23	185	18.6	3.56	58.41					
School session										
Morning session	84	517	7.7	4.90	12.00	46	299	4.5	2.78	7.11
Evening session	1	4	22.7	4.11	66.71	1	4	22.9	1.84	82.49
Morning and evening session	102	608	16.8	5.66	40.60	15	93	2.6	1.74	3.77
BMI-for-age status (BAZ)										
Thinness (<-2sd)	12	71	11.2	5.94	19.98	6	48	7.5	2.47	20.74
Normal (\geq -2sd - \leq +1sd)	118	722	11.5	4.85	24.83	34	219	3.5	1.91	6.28
Overweight (>+1sd - \leq +2sd)	35	209	12.0	5.40	24.73	14	77	4.4	2.76	7.04
Obese (>+2sd)	22	128	7.8	3.74	15.40	8	52	3.1	1.42	6.83
Height-for-age status (HAZ)										
Stunting (<-2sd)	19	125	19.1	8.42	37.78	6	47	7.2	2.97	16.55
Normal (\geq -2sd)	168	1005	10.4	4.78	21.14	56	349	3.6	2.35	5.49

Table 3.4.18 : Type of food usually bring to school among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Type of food				
	Count	Estimated Population	Others Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	142	868	8.4	6.52	10.79
Locality of school					
Urban	142	868	8.4	6.52	10.79
Rural					
Sex					
Boys	75	455	9.2	7.08	11.90
Girls	67	413	7.7	5.35	10.90
Ethnicity					
Malay	135	812	8.1	6.12	10.54
Chinese	2	12	30.3	8.91	65.98
Indian	2	14	16.2	2.74	56.92
Bumiputera Sabah	1	14	33.3	3.95	85.86
Bumiputera Sarawak	2	16	30.9	6.16	75.35
Others					
School level					
Primary school	61	475	9.2	6.81	12.34
Secondary school	81	393	7.6	5.07	11.30
Class					
Standard 4	35	213	10.8	7.05	16.20
Standard 5	15	132	7.8	4.84	12.35
Standard 6	11	129	8.7	3.36	20.63
Form 1	33	131	11.1	8.73	13.92
Form 2	15	69	7.0	3.65	12.87
Form 3	13	79	8.0	2.65	21.59
Form 4	14	69	6.9	3.94	11.88
Form 5	6	45	4.5	1.85	10.56
School session					
Morning session	87	548	8.2	6.02	11.06
Evening session					
Morning and evening session	55	320	8.9	5.40	14.21
BMI-for-age status (BAZ)					
Thinness (<-2sd)	14	81	12.9	6.29	24.46
Normal (\geq -2sd - \leq +1sd)	84	520	8.3	6.44	10.56
Overweight ($>$ +1sd - \leq +2sd)	26	157	9.1	6.14	13.27
Obese ($>$ +2sd)	18	109	6.6	3.79	11.28
Height-for-age status (HAZ)					
Stunting (<-2sd)	3	23	3.5	1.11	10.43
Normal (\geq -2sd)	139	845	8.7	6.70	11.34

Table 3.4.19 : Practice of bring drinks to school among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Bring drinks to school practices									
	Everyday					Occasionally				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1153	7099	47.4	41.05	53.87	918	5578	37.3	33.08	41.63
Locality of school										
Urban	1153	7099	47.4	41.05	53.87	918	5578	37.3	33.08	41.63
Rural										
Sex										
Boys	537	3264	40.7	35.00	46.76	494	3012	37.6	33.72	41.66
Girls	616	3835	55.1	47.33	62.62	424	2566	36.9	30.75	43.43
Ethnicity										
Malay	1120	6903	47.1	40.52	53.70	902	5493	37.4	33.18	41.91
Chinese	5	35	88.6	37.71	99.00	1	5	11.4	1.00	62.29
Indian	14	72	73.3	44.89	90.27	3	20	20.4	4.11	60.48
Bumiputera Sabah	3	20	29.4	7.57	68.03	9	47	70.6	31.97	92.43
Bumiputera Sarawak	7	45	68.5	35.38	89.59	3	14	21.8	6.04	54.89
Others	4	24	77.8	20.32	97.96					
School level										
Primary school	402	3267	49.5	44.20	54.75	330	2670	40.4	36.14	44.87
Secondary school	751	3832	45.8	35.49	56.48	588	2908	34.8	29.04	40.95
Class										
Standard 4	190	1174	48.6	43.33	53.93	167	1022	42.3	38.85	45.88
Standard 5	127	1145	52.0	42.70	61.12	92	838	38.1	29.97	46.86
Standard 6	85	948	47.7	39.30	56.26	71	810	40.8	34.76	47.04
Form 1	224	905	46.5	39.25	53.85	184	724	37.2	30.63	44.22
Form 2	166	740	41.9	32.12	52.41	145	638	36.2	31.83	40.75
Form 3	119	736	43.1	27.41	60.29	89	541	31.6	22.05	43.11
Form 4	145	710	48.7	34.39	63.25	106	520	35.7	27.52	44.84
Form 5	97	741	49.8	36.06	63.52	64	485	32.6	24.66	41.59
School session										
Morning session	705	4485	46.1	41.16	51.04	606	3696	38.0	35.88	40.08
Evening session	3	13	55.9	19.23	87.09	1	6	25.5	2.40	82.64
Morning and evening session	445	2601	50.0	36.34	63.60	310	1871	35.9	26.66	46.40
BMI-for-age status (BAZ)										
Thinness (<-2sd)	68	403	43.3	33.02	54.19	63	390	42.0	34.01	50.35
Normal (≥-2sd - ≤+1sd)	681	4169	45.3	38.29	52.50	591	3561	38.7	33.96	43.65
Overweight (>+1sd - ≤+2sd)	206	1263	50.4	41.64	59.14	145	883	35.2	29.24	41.76
Obese (>+2sd)	198	1265	54.5	48.57	60.38	118	730	31.5	26.24	37.27
Height-for-age status (HAZ)										
Stunting (<-2sd)	60	380	42.4	34.36	50.87	59	361	40.2	32.20	48.84
Normal (≥-2sd)	1093	6719	47.8	41.08	54.51	858	5213	37.0	32.74	41.57

Table 3.4.19 : Practice of bring drinks to school among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Bring drinks to school practices				
	Count	Estimated Population	Prevalence (%)	Never	
				Lower	Upper
WP Putrajaya	400	2294	15.3	11.30	20.44
Locality of school					
Urban	400	2294	15.3	11.30	20.44
Rural					
Sex					
Boys	299	1734	21.7	17.40	26.61
Girls	101	560	8.0	4.72	13.36
Ethnicity					
Malay	397	2274	15.5	11.38	20.76
Chinese					
Indian	1	6	6.3	1.44	23.56
Bumiputera Sabah					
Bumiputera Sarawak	1	6	9.7	0.99	53.57
Others	1	7	22.2	2.04	79.68
School level					
Primary school	80	667	10.1	7.20	13.99
Secondary school	320	1627	19.4	14.17	26.08
Class					
Standard 4	37	219	9.1	6.75	12.06
Standard 5	25	219	10.0	6.51	14.97
Standard 6	18	229	11.5	6.44	19.78
Form 1	81	318	16.4	12.93	20.48
Form 2	87	386	21.9	15.45	30.09
Form 3	72	432	25.3	14.86	39.56
Form 4	44	227	15.6	8.86	25.93
Form 5	36	263	17.7	11.10	26.94
School session					
Morning session	274	1555	16.0	11.64	21.53
Evening session	1	4	18.6	3.05	62.46
Morning and evening session	125	734	14.1	8.75	21.93
BMI-for-age status (BAZ)					
Thinness (<-2sd)	23	137	14.7	10.01	21.18
Normal ($\geq-2sd - \leq+1sd$)	262	1473	16.0	11.56	21.76
Overweight ($>+1sd - \leq+2sd$)	56	360	14.4	9.26	21.58
Obese ($>+2sd$)	59	324	14.0	9.15	20.75
Height-for-age status (HAZ)					
Stunting (<-2sd)	26	156	17.4	13.60	21.90
Normal ($\geq-2sd$)	374	2138	15.2	11.06	20.52

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Table 3.4.20 : Type of drinks usually bring to school among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of drinks									
	Plain water					Flavoured water/ packed drink/ syrup drink/ tea/ coffee/ Milo				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	1853	11340	89.5	86.75	91.76	215	1363	10.8	8.12	14.12
Locality of school										
Urban	1853	11340	89.5	86.75	91.76	215	1363	10.8	8.12	14.12
Rural										
Sex										
Boys	877	5358	85.4	81.94	88.24	125	777	12.4	9.35	16.20
Girls	976	5983	93.6	91.19	95.37	90	586	9.2	6.12	13.52
Ethnicity										
Malay	1811	11100	89.6	86.74	91.92	211	1341	10.8	8.10	14.32
Chinese	5	32	81.1	38.42	96.72					
Indian	15	76	82.6	39.84	97.15	1	5	4.9	1.03	20.57
Bumiputera Sabah	9	54	82.2	50.10	95.48	1	4	5.4	0.64	33.44
Bumiputera Sarawak	9	54	89.8	44.50	98.97	2	14	23.4	4.65	65.67
Others	4	24	100.0	100.00	100.00					
School level										
Primary school	646	5279	89.0	87.20	90.54	90	734	12.4	8.72	17.28
Secondary school	1207	6062	90.0	84.67	93.60	125	628	9.3	6.19	13.82
Class										
Standard 4	306	1888	86.2	81.97	89.50	46	290	13.3	8.19	20.73
Standard 5	194	1756	88.6	84.58	91.61	29	267	13.5	8.82	20.06
Standard 6	146	1635	93.0	89.70	95.26	15	177	10.0	3.29	26.81
Form 1	363	1451	89.3	86.57	91.53	43	169	10.4	8.40	12.77
Form 2	282	1250	90.7	82.87	95.21	30	135	9.8	6.04	15.50
Form 3	187	1153	90.3	81.14	95.23	19	116	9.1	5.17	15.58
Form 4	236	1153	93.7	86.18	97.27	18	92	7.5	3.57	14.91
Form 5	139	1055	86.0	69.72	94.27	15	117	9.5	4.39	19.38
School session										
Morning session	1169	7310	89.5	86.90	91.56	144	934	11.4	8.37	15.43
Evening session	4	19	100.0	100.00	100.00	1	6	31.3	3.31	85.87
Morning and evening session	679	4006	89.6	81.29	94.44	70	422	9.4	5.63	15.42
BMI-for-age status (BAZ)										
Thinness (<-2sd)	114	687	86.6	79.30	91.61	16	101	12.8	6.96	22.35
Normal (≥-2sd - ≤+1sd)	1142	6949	89.9	86.97	92.23	131	826	10.7	7.85	14.38
Overweight (>+1sd - ≤+2sd)	319	1954	91.4	85.52	95.07	37	248	11.6	7.14	18.26
Obese (>+2sd)	278	1751	87.8	82.39	91.65	31	188	9.4	6.04	14.40
Height-for-age status (HAZ)										
Stunting (<-2sd)	106	653	88.1	75.39	94.66	12	76	10.3	5.55	18.34
Normal (≥-2sd)	1746	10683	89.6	86.91	91.79	203	1286	10.8	8.19	14.09

Table 3.4.20 : Type of drinks usually bring to school among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of drinks									
	Carbonated drink					Milk/ cultured drink				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	31	177	1.4	0.83	2.33	99	624	4.9	3.23	7.44
Locality of school										
Urban	31	177	1.4	0.83	2.33	99	624	4.9	3.23	7.44
Rural										
Sex										
Boys	25	139	2.2	1.16	4.15	62	387	6.2	3.41	10.89
Girls	6	38	0.6	0.28	1.29	37	237	3.7	2.48	5.52
Ethnicity										
Malay	29	168	1.4	0.83	2.20	94	593	4.8	3.06	7.42
Chinese						1	8	18.9	3.28	61.58
Indian						2	16	17.4	2.85	60.16
Bumiputera Sabah	2	9	12.9	2.24	48.78	2	7	11.0	2.92	33.59
Bumiputera Sarawak										
Others										
School level										
Primary school	9	72	1.2	0.74	1.95	40	320	5.4	4.30	6.73
Secondary school	22	105	1.6	0.70	3.43	59	304	4.5	1.98	9.97
Class										
Standard 4	5	29	1.3	0.86	2.10	21	130	6.0	3.98	8.82
Standard 5	2	18	0.9	0.28	2.85	12	109	5.5	3.67	8.13
Standard 6	2	24	1.4	0.42	4.55	7	81	4.6	3.38	6.19
Form 1	12	47	2.9	1.51	5.57	19	75	4.6	2.86	7.29
Form 2	4	18	1.3	0.43	3.91	11	49	3.6	1.47	8.36
Form 3	4	24	1.9	0.63	5.49	7	43	3.4	0.69	14.89
Form 4						13	67	5.4	2.01	13.81
Form 5	2	16	1.3	0.15	10.16	9	71	5.8	1.80	17.04
School session										
Morning session	25	141	1.7	1.00	2.98	58	382	4.7	3.22	6.74
Evening session										
Morning and evening session	6	36	0.8	0.26	2.45	41	242	5.4	2.48	11.38
BMI-for-age status (BAZ)										
Thinness (<-2sd)	3	15	1.9	0.55	6.50	7	54	6.9	2.56	17.11
Normal (≥-2sd - ≤+1sd)	17	95	1.2	0.82	1.84	56	345	4.5	2.49	7.88
Overweight (>+1sd - ≤+2sd)	6	29	1.4	0.36	5.07	16	100	4.7	2.34	9.15
Obese (>+2sd)	5	38	1.9	0.75	4.66	20	124	6.2	4.06	9.46
Height-for-age status (HAZ)										
Stunting (<-2sd)	1	10	1.4	0.16	11.05	6	45	6.0	2.13	15.79
Normal (≥-2sd)	30	167	1.4	0.81	2.41	93	579	4.9	3.21	7.30

Table 3.4.20 : Type of drinks usually bring to school among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Type of drinks				
	Count	Estimated Population	Others Percentage (%)	95% CI	
				Lower	Upper
WP Putrajaya	28	178	1.4	0.67	2.91
Locality of school					
Urban	28	178	1.4	0.67	2.91
Rural					
Sex					
Boys	15	87	1.4	0.76	2.52
Girls	13	91	1.4	0.53	3.81
Ethnicity					
Malay	28	178	1.4	0.69	2.98
Chinese					
Indian					
Bumiputera Sabah					
Bumiputera Sarawak					
Others					
School level					
Primary school	18	125	2.1	0.80	5.43
Secondary school	10	53	0.8	0.50	1.23
Class					
Standard 4	14	83	3.8	2.38	5.92
Standard 5	2	19	1.0	0.11	7.91
Standard 6	2	23	1.3	0.17	9.48
Form 1	3	11	0.7	0.26	1.86
Form 2	2	9	0.7	0.15	2.70
Form 3	2	12	0.9	0.28	3.20
Form 4	1	5	0.4	0.06	2.58
Form 5	2	16	1.3	0.38	4.20
School session					
Morning session	24	153	1.9	0.81	4.24
Evening session					
Morning and evening session	4	25	0.6	0.25	1.23
BMI-for-age status (BAZ)					
Thinness (<-2sd)	1	5	0.6	0.07	4.67
Normal (≥-2sd - ≤+1sd)	16	99	1.3	0.69	2.36
Overweight (>+1sd - ≤+2sd)	6	35	1.7	0.59	4.57
Obese (>+2sd)	4	25	1.3	0.39	4.14
Height-for-age status (HAZ)					
Stunting (<-2sd)	1	3	0.4	0.05	4.00
Normal (≥-2sd)	27	175	1.5	0.69	3.08

Table 3.4.21 : Spending of pocket money among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Spending of pocket money									
	Buy food/drinks					Buy stationery				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1728	10415	70.5	66.90	73.95	67	415	2.8	1.76	4.46
Locality of school										
Urban	1728	10415	70.5	66.90	73.95	67	415	2.8	1.76	4.46
Rural										
Sex										
Boys	885	5330	67.8	63.12	72.16	41	234	3.0	1.81	4.86
Girls	843	5085	73.7	68.94	77.90	26	181	2.6	1.20	5.62
Ethnicity										
Malay	1697	10233	70.7	66.99	74.12	64	402	2.8	1.74	4.42
Chinese	3	21	64.3	14.40	95.07					
Indian	10	55	61.7	36.61	81.74	1	4	4.7	0.94	20.52
Bumiputera Sabah	6	33	49.2	19.00	79.98	1	5	6.9	0.65	45.61
Bumiputera Sarawak	7	42	63.6	28.05	88.67	1	4	6.0	0.60	40.83
Others	5	31	100.0	100.00	100.00					
School level										
Primary school	544	4448	68.4	62.56	73.66	31	247	3.8	2.25	6.31
Secondary school	1184	5966	72.3	68.07	76.09	36	168	2.0	0.99	4.14
Class										
Standard 4	248	1513	64.4	57.84	70.38	17	104	4.4	3.49	5.61
Standard 5	180	1624	74.6	67.02	80.95	6	54	2.5	1.35	4.58
Standard 6	116	1311	66.3	59.31	72.63	8	88	4.5	1.56	12.08
Form 1	344	1375	72.0	66.91	76.54	14	55	2.9	1.83	4.46
Form 2	285	1266	73.8	65.44	80.79	12	54	3.2	0.88	10.75
Form 3	198	1209	71.8	64.98	77.67	5	29	1.7	0.71	4.19
Form 4	219	1075	73.7	64.10	81.54	3	14	1.0	0.33	2.92
Form 5	138	1041	69.9	62.09	76.73	2	15	1.0	0.29	3.55
School session										
Morning session	1083	6649	69.3	64.72	73.44	57	353	3.7	2.27	5.91
Evening session	2	9	37.1	10.25	75.24					
Morning and evening session	642	3752	73.1	67.54	78.00	10	61	1.2	0.54	2.61
BMI-for-age status (BAZ)										
Thinness (<-2sd)	106	645	71.8	65.22	77.62	3	18	2.1	0.55	7.31
Normal (≥-2sd - ≤+1sd)	1105	6631	73.0	69.71	76.00	34	197	2.2	1.27	3.68
Overweight (>+1sd - ≤+2sd)	271	1609	64.9	58.10	71.09	18	112	4.5	2.02	9.75
Obese (>+2sd)	245	1516	66.4	57.53	74.22	12	87	3.8	1.95	7.38
Height-for-age status (HAZ)										
Stunting (<-2sd)	96	575	65.3	56.16	73.41	5	35	4.0	1.81	8.72
Normal (≥-2sd)	1631	9835	70.9	67.22	74.27	62	379	2.7	1.66	4.47

Table 3.4.21 : Spending of pocket money among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Spending of pocket money									
	Saving					Others				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	544	3361	22.8	20.08	25.70	94	572	3.9	3.13	4.79
Locality of school										
Urban	544	3361	22.8	20.08	25.70	94	572	3.9	3.13	4.79
Rural										
Sex										
Boys	315	1934	24.6	20.87	28.78	60	362	4.6	3.63	5.83
Girls	229	1427	20.7	17.69	24.01	34	210	3.0	2.01	4.58
Ethnicity										
Malay	535	3303	22.8	20.08	25.80	88	540	3.7	2.98	4.65
Chinese	1	7	21.8	1.87	80.30	1	5	13.9	1.13	69.57
Indian	3	16	17.7	5.96	42.08	2	14	16.0	3.94	46.82
Bumiputera Sabah	3	22	32.9	7.60	74.54	2	7	11.0	2.92	33.59
Bumiputera Sarawak	2	14	20.7	4.10	61.39	1	6	9.7	0.99	53.57
Others										
School level										
Primary school	194	1579	24.3	20.13	28.96	29	232	3.6	2.79	4.55
Secondary school	350	1782	21.6	18.43	25.11	65	340	4.1	3.03	5.59
Class										
Standard 4	102	629	26.7	22.16	31.87	17	105	4.5	2.73	7.26
Standard 5	48	433	19.9	14.17	27.26	7	65	3.0	1.13	7.60
Standard 6	44	517	26.1	24.12	28.25	5	62	3.1	1.51	6.35
Form 1	101	397	20.8	16.69	25.55	21	84	4.4	3.34	5.75
Form 2	72	314	18.3	13.48	24.43	18	80	4.7	2.80	7.67
Form 3	69	421	25.0	20.00	30.77	4	25	1.5	0.30	7.17
Form 4	67	338	23.2	15.59	33.11	6	30	2.1	0.94	4.42
Form 5	41	311	20.9	15.72	27.25	16	121	8.2	5.03	12.94
School session										
Morning session	359	2226	23.2	19.80	26.97	61	372	3.9	3.01	4.98
Evening session	2	10	44.3	7.22	89.06	1	4	18.6	3.05	62.46
Morning and evening session	183	1124	21.9	17.07	27.65	32	196	3.8	2.72	5.31
BMI-for-age status (BAZ)										
Thinness (<-2sd)	35	213	23.7	17.14	31.80	4	22	2.4	0.86	6.60
Normal (≥-2sd - ≤+1sd)	320	1930	21.2	18.98	23.69	55	329	3.6	2.64	4.96
Overweight (>+1sd - ≤+2sd)	99	670	27.0	22.37	32.20	14	90	3.6	2.22	5.81
Obese (>+2sd)	90	549	24.0	16.65	33.36	21	132	5.8	3.74	8.77
Height-for-age status (HAZ)										
Stunting (<-2sd)	34	228	25.9	19.04	34.25	6	42	4.8	2.33	9.49
Normal (≥-2sd)	510	3133	22.6	19.95	25.44	88	530	3.8	3.04	4.80

Table 3.4.22 : Prevalence of eating out in a week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Frequency of eating out in a week									
	7 times or more					4 to 6 times				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	104	687	4.6	3.23	6.48	336	2169	14.5	11.11	18.70
Locality of school										
Urban	104	687	4.6	3.23	6.48	336	2169	14.5	11.11	18.70
Rural										
Sex										
Boys	55	342	4.3	2.70	6.70	189	1220	15.2	10.53	21.53
Girls	49	345	5.0	3.37	7.22	147	949	13.6	10.20	18.03
Ethnicity										
Malay	102	671	4.6	3.26	6.40	331	2148	14.6	11.17	18.97
Chinese										
Indian						1	4	4.3	0.40	33.18
Bumiputera Sabah	1	6	8.7	0.84	52.06	2	8	11.3	2.32	40.84
Bumiputera Sarawak	1	10	14.4	1.55	64.41	2	9	14.3	2.61	50.71
Others										
School level										
Primary school	57	438	6.6	4.85	9.05	166	1324	20.1	19.15	21.05
Secondary school	47	248	3.0	2.00	4.38	170	845	10.1	6.83	14.66
Class										
Standard 4	36	223	9.3	6.17	13.69	86	530	22.0	19.16	25.19
Standard 5	12	112	5.1	3.10	8.25	53	475	21.6	17.40	26.43
Standard 6	9	103	5.2	3.81	7.05	27	319	16.1	12.98	19.74
Form 1	9	37	1.9	0.86	4.11	49	191	9.8	6.73	14.15
Form 2	12	53	3.0	1.76	5.10	43	188	10.6	7.18	15.50
Form 3	7	43	2.5	0.86	7.07	28	169	9.9	5.87	16.27
Form 4	9	41	2.8	1.40	5.63	27	128	8.7	5.04	14.60
Form 5	10	75	5.0	1.73	13.66	23	169	11.4	5.37	22.45
School session										
Morning session	75	502	5.2	3.45	7.67	244	1574	16.2	13.30	19.56
Evening session						1	4	17.8	1.57	74.84
Morning and evening session	29	184	3.5	2.14	5.82	91	590	11.3	6.85	18.19
BMI-for-age status (BAZ)										
Thinness (<-2sd)	11	74	8.0	4.09	15.03	18	115	12.4	6.52	22.46
Normal (≥-2sd - ≤+1sd)	59	378	4.1	2.52	6.65	209	1347	14.6	10.95	19.31
Overweight (>+1sd - ≤+2sd)	15	97	3.9	2.12	6.96	59	374	14.9	10.56	20.69
Obese (>+2sd)	19	137	5.9	3.11	10.96	50	333	14.3	9.82	20.48
Height-for-age status (HAZ)										
Stunting (<-2sd)	9	57	6.3	2.85	13.46	21	139	15.5	8.40	26.72
Normal (≥-2sd)	95	630	4.5	3.20	6.24	315	2030	14.4	11.08	18.60

Table 3.4.22 : Prevalence of eating out in a week among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Frequency of eating out in a week									
	1 to 3 times					Never				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1862	11172	74.7	71.08	77.94	167	935	6.3	4.14	9.32
Locality of school										
Urban	1862	11172	74.7	71.08	77.94	167	935	6.3	4.14	9.32
Rural										
Sex										
Boys	983	5880	73.4	68.98	77.47	102	564	7.0	4.11	11.82
Girls	879	5292	76.1	71.31	80.26	65	371	5.3	3.40	8.28
Ethnicity										
Malay	1822	10933	74.5	70.97	77.83	163	913	6.2	4.09	9.36
Chinese	6	40	100.0	0.00	100.00					
Indian	14	74	79.0	50.92	93.18	2	16	16.7	4.41	46.62
Bumiputera Sabah	7	46	70.0	28.46	93.18	2	7	9.9	1.11	52.05
Bumiputera Sarawak	8	47	71.3	32.51	92.78					
Others	5	31	100.0	100.00	100.00					
School level										
Primary school	557	4601	69.8	67.57	71.88	30	231	3.5	2.53	4.81
Secondary school	1305	6571	78.5	75.00	81.66	137	705	8.4	5.48	12.73
Class										
Standard 4	252	1542	64.1	59.49	68.50	18	110	4.6	3.42	6.12
Standard 5	172	1552	70.5	65.83	74.72	7	63	2.9	1.60	5.08
Standard 6	133	1507	75.8	72.11	79.21	5	57	2.9	1.55	5.28
Form 1	388	1547	79.8	74.81	83.96	41	165	8.5	4.34	16.01
Form 2	311	1380	78.2	73.46	82.34	32	143	8.1	5.32	12.22
Form 3	211	1289	75.5	68.97	80.97	34	207	12.1	7.70	18.57
Form 4	246	1223	83.4	77.26	88.08	15	75	5.1	3.22	8.03
Form 5	149	1131	76.0	65.97	83.75	15	114	7.7	3.79	14.90
School session										
Morning session	1168	7099	73.0	69.42	76.26	96	552	5.7	4.05	7.89
Evening session	4	19	17.8	25.16	98.43					
Morning and evening session	690	4054	77.9	72.69	82.30	70	378	7.3	3.95	12.95
BMI-for-age status (BAZ)										
Thinness (<-2sd)	115	679	73.4	59.67	83.70	9	57	6.2	2.87	12.80
Normal (≥-2sd - ≤+1sd)	1173	6977	75.9	71.67	79.61	92	495	5.4	3.38	8.44
Overweight (>+1sd - ≤+2sd)	298	1841	73.4	67.97	78.23	35	195	7.8	4.22	13.93
Obese (>+2sd)	275	1661	71.6	64.32	77.94	31	188	8.1	5.01	12.90
Height-for-age status (HAZ)										
Stunting (<-2sd)	110	663	73.9	60.93	83.68	5	39	4.3	1.99	9.21
Normal (≥-2sd)	1751	10504	74.7	71.26	77.87	162	896	6.4	4.18	9.60

Table 3.4.23 : Prevalence of consuming snack food in a week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

	7 times or more					4 to 6 times				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	160	981	6.5	4.95	8.62	550	3354	22.4	19.52	25.55
Locality of school										
Urban	160	981	6.5	4.95	8.62	550	3354	22.4	19.52	25.55
Rural										
Sex										
Boys	88	530	6.6	4.12	10.42	314	1885	23.5	19.38	28.21
Girls	72	451	6.5	5.11	8.17	236	1470	21.1	18.30	24.21
Ethnicity										
Malay	156	956	6.5	4.87	8.65	537	3276	22.3	19.43	25.49
Chinese	1	7	17.9	1.64	73.96	2	12	30.3	8.91	65.98
Indian	2	9	8.7	3.31	21.09	1	5	4.6	1.07	17.88
Bumiputera Sabah										
Bumiputera Sarawak	1	10	14.4	1.55	64.41	4	25	37.2	11.75	72.58
Others										
School level										
Primary school	56	438	6.6	5.33	8.22	171	1366	20.7	17.88	23.80
Secondary school	104	543	6.5	4.02	10.28	379	1988	23.7	19.56	28.49
Class										
Standard 4	29	180	7.5	4.38	12.45	93	561	23.2	18.92	28.18
Standard 5	18	158	7.2	4.45	11.34	37	338	15.4	12.71	18.42
Standard 6	9	100	5.0	2.16	11.18	41	467	23.5	17.43	30.90
Form 1	24	99	5.1	2.67	9.38	90	365	18.7	14.95	23.24
Form 2	32	146	8.3	5.13	13.04	83	374	21.2	15.86	27.66
Form 3	21	125	7.3	3.96	13.07	59	367	21.5	15.35	29.25
Form 4	12	57	3.9	1.95	7.57	93	471	32.1	25.65	39.28
Form 5	15	117	7.9	3.94	15.06	54	412	27.7	23.18	32.63
School session										
Morning session	101	632	6.5	5.12	8.19	323	1988	20.4	18.18	22.86
Evening session	1	4	19.2	3.12	63.69					
Morning and evening session	58	344	6.6	3.94	10.86	227	1366	26.2	22.34	30.44
BMI-for-age status (BAZ)										
Thinness (<-2sd)	11	75	8.0	4.91	12.87	34	212	22.8	15.92	31.49
Normal (≥-2sd - ≤+1sd)	109	643	7.0	4.95	9.75	356	2197	23.9	20.66	27.38
Overweight (>+1sd - ≤+2sd)	21	125	5.0	3.35	7.39	95	560	22.3	17.44	28.07
Obese (>+2sd)	19	138	6.0	2.84	12.09	65	386	16.6	11.93	22.72
Height-for-age status (HAZ)										
Stunting (<-2sd)	14	97	10.8	7.11	16.05	38	243	27.1	19.72	35.89
Normal (≥-2sd)	146	884	6.3	4.60	8.52	511	3107	22.1	19.33	25.08

Table 3.4.23 : Prevalence of consuming snack food in a week among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Frequency of consuming snack foods per week									
	1-3 times					Never				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1701	10276	68.6	64.32	72.57	62	370	2.5	1.71	3.57
Locality of school										
Urban	1701	10276	68.6	64.32	72.57	62	370	2.5	1.71	3.57
Rural										
Sex										
Boys	885	5337	66.6	59.71	72.80	44	265	3.3	2.27	4.79
Girls	816	4939	70.9	67.71	73.92	18	105	1.5	0.79	2.86
Ethnicity										
Malay	1666	10078	68.7	64.37	72.63	62	370	2.5	1.74	3.65
Chinese	3	21	51.8	20.71	81.52					
Indian	15	85	86.6	70.01	94.74					
Bumiputera Sabah										
Bumiputera Sarawak	6	32	48.3	17.50	80.49					
Others	3	18	57.8	19.20	88.75					
School level										
Primary school	563	4620	70.0	66.53	73.17	22	181	2.7	1.53	4.84
Secondary school	1138	5656	67.5	60.47	73.85	40	190	2.3	1.44	3.55
Class										
Standard 4	264	1626	67.3	61.36	72.74	8	48	2.0	0.97	4.09
Standard 5	179	1621	73.6	67.00	79.29	10	86	3.9	1.80	8.16
Standard 6	120	1374	69.1	59.32	77.47	4	47	2.4	0.76	7.07
Form 1	360	1422	73.0	66.34	78.85	15	61	3.1	1.70	5.75
Form 2	270	1189	67.4	58.63	75.06	13	56	3.2	1.74	5.81
Form 3	193	1173	68.7	56.86	78.48	7	43	2.5	0.89	7.03
Form 4	189	926	63.1	55.99	69.70	3	14	0.9	0.20	4.17
Form 5	126	945	63.5	56.10	70.25	2	15	1.0	0.26	3.96
School session										
Morning session	1113	6824	70.1	66.60	73.36	48	292	3.0	2.09	4.27
Evening session	4	19	80.8	36.31	96.88					
Morning and evening session	583	3427	65.7	59.15	71.70	14	79	1.5	0.78	2.91
BMI-for-age status (BAZ)										
Thinness (<-2sd)	104	612	65.8	57.29	73.35	5	32	3.4	1.38	8.19
Normal (≥-2sd - ≤+1sd)	1041	6207	67.4	62.32	72.11	29	162	1.8	1.00	3.06
Overweight (>+1sd - ≤+2sd)	281	1747	69.6	62.62	75.77	11	78	3.1	1.43	6.60
Obese (>+2sd)	274	1696	73.1	66.62	78.80	17	99	4.3	2.83	6.39
Height-for-age status (HAZ)										
Stunting (<-2sd)	89	537	59.9	48.44	70.35	4	20	2.3	0.75	6.70
Normal (≥-2sd)	1612	9739	69.2	64.90	73.14	58	350	2.5	1.73	3.57

Table 3.4.24 : Type of snack foods usually consumed among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of snack foods									
	Bread/ bun/ sandwich					French fries				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	975	5909	39.5	34.56	44.69	444	2701	18.1	15.54	20.89
Locality of school										
Urban	975	5909	39.5	34.56	44.69	444	2701	18.1	15.54	20.89
Rural										
Sex										
Boys	520	3159	39.5	34.23	44.96	228	1404	17.5	13.94	21.85
Girls	455	2750	39.6	33.27	46.23	216	1297	18.7	15.42	22.39
Ethnicity										
Malay	955	5794	39.5	34.61	44.70	441	2684	18.3	15.72	21.23
Chinese	2	15	37.8	4.69	88.25					
Indian	8	47	48.5	25.79	71.86	2	11	11.4	1.84	46.86
Bumiputera Sabah	4	16	24.2	8.49	52.26					
Bumiputera Sarawak	4	22	33.3	11.00	66.81	1	6	9.2	0.94	52.26
Others	2	14	46.3	13.13	83.14					
School level										
Primary school	255	2158	32.8	30.93	34.70	164	1330	20.2	17.94	22.67
Secondary school	720	3751	44.8	38.83	50.93	280	1371	16.4	12.89	20.60
Class										
Standard 4	109	672	28.0	20.92	36.34	80	488	20.3	17.33	23.67
Standard 5	80	720	32.9	26.07	40.47	51	465	21.2	15.40	28.50
Standard 6	66	765	38.5	30.90	46.73	33	376	18.9	13.29	26.25
Form 1	187	754	38.7	32.33	45.52	99	387	19.9	14.64	26.42
Form 2	167	749	42.4	36.94	48.10	55	238	13.5	8.79	20.09
Form 3	121	745	43.6	34.40	53.32	48	290	16.9	13.09	21.67
Form 4	130	640	43.7	36.63	51.11	51	255	17.4	13.53	22.09
Form 5	115	863	58.0	46.07	69.00	27	202	13.6	7.69	22.91
School session										
Morning session	608	3741	38.5	33.78	43.46	290	1746	18.0	15.62	20.60
Evening session	3	15	62.6	24.44	89.62					
Morning and evening session	364	2153	41.3	33.23	49.92	154	954	18.3	13.68	24.09
BMI-for-age status (BAZ)										
Thinness (<-2sd)	54	329	35.8	26.88	45.81	24	143	15.5	9.80	23.68
Normal (≥-2sd - ≤+1sd)	602	3566	38.8	32.39	45.56	278	1674	18.2	15.13	21.74
Overweight (>+1sd - ≤+2sd)	170	1052	41.9	35.86	48.23	66	409	16.3	13.21	19.94
Obese (>+2sd)	148	948	41.0	35.60	46.57	76	475	20.5	16.92	24.69
Height-for-age status (HAZ)										
Stunting (<-2sd)	50	316	35.2	24.84	47.26	29	170	18.9	15.14	23.38
Normal (≥-2sd)	925	5593	39.8	34.89	44.92	415	2531	18.0	15.43	20.92

Table 3.4.24 : Type of snack foods usually consumed among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of snack foods									
	Biscuit					Fruits				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	497	3026	20.2	15.25	26.35	347	2112	14.1	11.59	17.10
Locality of school										
Urban	497	3026	20.2	15.25	26.35	347	2112	14.1	11.59	17.10
Rural										
Sex										
Boys	266	1591	19.9	11.85	31.42	160	916	11.4	8.59	15.08
Girls	231	1435	20.7	17.10	24.71	187	1197	17.2	14.65	20.13
Ethnicity										
Malay	479	2923	19.9	14.93	26.13	342	2082	14.2	11.67	17.18
Chinese	4	28	69.7	34.02	91.09	1	5	11.4	1.00	62.29
Indian	4	19	19.3	6.58	44.72	1	5	4.6	1.07	17.88
Bumiputera Sabah	6	35	53.2	21.78	82.25	2	14	21.5	3.82	65.39
Bumiputera Sarawak	3	16	23.9	6.71	57.78					
Others	1	6	18.1	1.60	75.02	1	7	22.8	2.10	80.23
School level										
Primary school	131	1092	16.6	14.07	19.46	130	1038	15.8	12.23	20.10
Secondary school	366	1934	23.1	15.38	33.19	217	1074	12.8	9.73	16.74
Class										
Standard 4	60	379	15.8	11.96	20.53	67	419	17.4	13.83	21.74
Standard 5	45	408	18.6	14.63	23.37	36	335	15.3	9.12	24.42
Standard 6	26	305	15.4	8.83	25.36	27	285	14.3	10.53	19.18
Form 1	87	355	18.2	10.83	28.98	75	298	15.3	12.04	19.22
Form 2	98	445	25.2	17.09	35.51	47	205	11.6	7.90	16.79
Form 3	52	325	19.0	11.52	29.69	33	203	11.9	7.64	18.02
Form 4	72	368	25.2	14.80	39.43	37	181	12.3	7.83	18.93
Form 5	57	443	29.7	19.28	42.83	25	188	12.6	7.50	20.41
School session										
Morning session	296	1852	19.1	16.35	22.11	226	1419	14.6	11.45	18.45
Evening session	1	4	18.8	1.66	76.08	3	13	55.9	19.23	87.09
Morning and evening session	200	1170	22.5	12.62	36.73	118	680	13.1	10.66	15.90
BMI-for-age status (BAZ)										
Thinness (<-2sd)	38	214	23.2	17.43	30.27	18	114	12.4	8.04	18.74
Normal (≥-2sd - ≤+1sd)	333	2005	21.8	15.88	29.15	211	1305	14.2	10.99	18.12
Overweight (>+1sd - ≤+2sd)	69	434	17.3	11.69	24.80	62	374	14.9	10.77	20.24
Obese (>+2sd)	57	374	16.2	12.13	21.23	56	319	13.8	9.05	20.50
Height-for-age status (HAZ)										
Stunting (<-2sd)	34	226	25.2	18.07	33.92	26	167	18.7	13.11	25.84
Normal (≥-2sd)	463	2801	19.9	15.01	25.97	321	1945	13.8	11.27	16.89

Table 3.4.24 : Type of snack foods usually consumed among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of snack foods									
	Nuts					Fish cracker				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	60	369	2.5	1.79	3.40	484	2878	19.2	17.18	21.49
Locality of school										
Urban	60	369	2.5	1.79	3.40	484	2878	19.2	17.18	21.49
Rural										
Sex										
Boys	35	216	2.7	1.73	4.20	250	1516	18.9	16.49	21.67
Girls	25	153	2.2	1.36	3.54	234	1361	19.6	16.71	22.82
Ethnicity										
Malay	57	352	2.4	1.77	3.26	474	2829	19.3	17.26	21.53
Chinese	1	8	18.9	3.28	61.58	1	5	11.4	1.00	62.29
Indian	2	10	9.8	2.17	34.55	4	18	18.9	6.51	43.67
Bumiputera Sabah						2	9	13.3	2.91	44.12
Bumiputera Sarawak										
Others						3	17	55.0	10.85	92.46
School level										
Primary school	20	171	2.6	1.85	3.66	144	1178	17.9	14.62	21.73
Secondary school	40	198	2.4	1.41	3.95	340	1699	20.3	18.13	22.66
Class										
Standard 4	10	61	2.6	1.68	3.85	73	446	18.6	14.66	23.25
Standard 5	4	35	1.6	0.74	3.42	40	364	16.6	11.30	23.78
Standard 6	6	75	3.8	2.42	5.87	31	367	18.5	14.33	23.53
Form 1	14	55	2.8	1.75	4.52	103	408	20.9	16.53	26.15
Form 2	10	45	2.5	1.13	5.62	73	325	18.4	14.97	22.39
Form 3	4	23	1.3	0.58	2.98	56	339	19.8	15.79	24.60
Form 4	5	24	1.6	0.62	4.14	71	352	24.1	19.91	28.82
Form 5	7	52	3.5	1.37	8.60	37	276	18.5	12.52	26.58
School session										
Morning session	47	288	3.0	2.11	4.14	288	1759	18.1	15.29	21.31
Evening session	1	4	18.6	3.05	62.46	1	4	18.8	1.66	76.08
Morning and evening session	12	77	1.5	0.88	2.49	195	1114	21.4	19.74	23.13
BMI-for-age status (BAZ)										
Thinness (<-2sd)	4	21	2.3	0.88	5.70	35	223	24.3	16.20	34.69
Normal (≥-2sd - ≤+1sd)	35	228	2.5	1.67	3.66	301	1762	19.2	16.57	22.03
Overweight (>+1sd - ≤+2sd)	8	37	1.5	0.65	3.23	80	494	19.7	15.51	24.67
Obese (>+2sd)	13	84	3.6	1.77	7.27	68	399	17.2	12.76	22.87
Height-for-age status (HAZ)										
Stunting (<-2sd)	4	19	2.1	0.66	6.36	24	135	15.1	8.94	24.29
Normal (≥-2sd)	56	351	2.5	1.86	3.34	460	2743	19.5	17.58	21.61

Table 3.4.24 : Type of snack foods usually consumed among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Type of snack foods				
	Count	Estimated Population	Percentage (%)	Ice cream	
				Lower	Upper
WP Putrajaya	367	2310	15.4	12.47	18.98
Locality of school					
Urban	367	2310	15.4	12.47	18.98
Rural					
Sex					
Boys	145	924	11.5	8.65	15.24
Girls	222	1386	19.9	16.33	24.11
Ethnicity					
Malay	360	2268	15.5	12.47	19.04
Chinese	1	7	17.9	1.64	73.96
Indian	2	10	10.7	0.96	59.77
Bumiputera Sabah	2	7	11.0	2.92	33.59
Bumiputera Sarawak	2	17	26.3	5.60	68.28
Others					
School level					
Primary school	146	1206	18.3	15.28	21.81
Secondary school	221	1104	13.2	9.43	18.14
Class					
Standard 4	64	402	16.7	13.44	20.64
Standard 5	43	389	17.8	15.00	20.89
Standard 6	39	414	20.8	15.73	27.09
Form 1	70	277	14.2	9.34	21.12
Form 2	46	204	11.5	8.09	16.21
Form 3	47	287	16.8	11.37	24.08
Form 4	34	160	10.9	7.09	16.45
Form 5	24	177	11.9	7.53	18.21
School session					
Morning session	244	1573	16.2	13.69	19.04
Evening session	2	10	44.3	7.22	89.06
Morning and evening session	120	721	13.8	8.87	20.96
BMI-for-age status (BAZ)					
Thinness (<-2sd)	29	188	20.4	13.00	30.67
Normal (\geq -2sd - \leq +1sd)	226	1411	15.3	11.54	20.11
Overweight ($>$ +1sd - \leq +2sd)	68	432	17.2	13.22	22.04
Obese ($>$ +2sd)	44	279	12.1	9.67	14.99
Height-for-age status (HAZ)					
Stunting (<-2sd)	21	132	14.7	10.07	20.88
Normal (\geq -2sd)	345	2173	15.5	12.38	19.15

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Table 3.4.25 : Prevalence of snack food and/or drinks usually bought out of school area in a week among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	frequency of bought snack food and/or drink out of school area in a week									
	5 times or more					1 to 4 times				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	217	1378	9.2	6.41	13.04	1513	9143	61.1	56.48	65.46
Locality of school										
Urban	217	1378	9.2	6.41	13.04	1513	9143	61.1	56.48	65.46
Rural										
Sex										
Boys	124	808	10.1	6.72	14.88	806	4845	60.5	55.46	65.35
Girls	93	570	8.2	5.00	13.11	707	4298	61.7	55.94	67.16
Ethnicity										
Malay	212	1347	9.2	6.37	13.06	1486	8992	61.3	56.73	65.66
Chinese						3	20	50.7	10.08	90.45
Indian	3	18	18.1	5.13	47.52	8	44	44.7	15.19	78.50
Bumiputera Sabah						9	44	100.0	100.00	100.00
Bumiputera Sarawak	2	13	18.9	3.74	58.37	3	17	26.3	7.07	62.61
Others						4	26	81.9	24.98	98.40
School level										
Primary school	92	746	11.3	7.19	17.32	476	3994	60.5	53.84	66.73
Secondary school	125	631	7.5	4.53	12.30	1037	5149	61.5	55.14	67.57
Class										
Standard 4	45	266	11.0	9.16	13.23	202	1237	51.2	44.68	57.70
Standard 5	27	242	11.0	4.86	22.99	157	1426	64.7	58.62	70.41
Standard 6	20	237	12.0	5.94	22.59	117	1331	67.0	60.54	72.82
Form 1	34	133	6.9	3.44	13.22	325	1290	66.4	60.22	72.05
Form 2	25	110	6.2	3.13	12.01	249	1093	61.9	53.59	69.64
Form 3	24	141	8.3	3.81	16.97	184	1113	65.2	57.12	72.43
Form 4	25	119	8.1	4.27	14.96	169	831	56.8	48.89	64.44
Form 5	17	128	8.6	4.39	16.17	110	822	55.2	48.79	61.48
School session										
Morning session	157	1004	10.3	7.93	13.34	986	6019	61.9	56.44	67.05
Evening session						5	23	100.0	100.00	100.00
Morning and evening session	60	373	7.2	3.53	13.96	521	3095	59.3	52.87	65.48
BMI-for-age status (BAZ)										
Thinness (<-2sd)	9	55	5.9	3.30	10.20	100	599	64.4	50.35	76.35
Normal (≥-2sd - ≤+1sd)	146	940	10.2	6.94	14.78	947	5638	61.2	56.12	66.09
Overweight (>+1sd - ≤+2sd)	31	168	6.7	4.04	10.92	234	1457	58.0	50.54	65.19
Obese (>+2sd)	31	215	9.3	5.47	15.35	231	1435	62.1	57.70	66.40
Height-for-age status (HAZ)										
Stunting (<-2sd)	10	69	7.7	3.25	17.30	91	557	62.1	50.68	72.28
Normal (≥-2sd)	207	1308	9.3	6.44	13.25	1421	8581	61.0	56.16	65.61

Table 3.4.25 : Prevalence of snack food and/or drinks usually bought out of school area in a week among adolescents by socio-demographic characteristics and nutritional status

Characteristics	snack food and/ or drinks usually bought out of school area in a week				
	Count	Estimated Population	Never Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	741	4451	29.7	23.66	36.62
Locality of school					
Urban	741	4451	29.7	23.66	36.62
Rural					
Sex					
Boys	399	2354	29.4	21.84	38.30
Girls	342	2098	30.1	23.29	37.95
Ethnicity					
Malay	721	4332	29.5	23.41	36.48
Chinese	3	20	49.3	9.55	89.92
Indian	7	36	37.2	9.25	77.44
Bumiputera Sabah	3	22	66.7	25.16	92.25
Bumiputera Sarawak	6	36	54.8	23.72	82.50
Others	1	6	18.1	1.60	75.02
School level					
Primary school	244	1865	28.2	20.69	37.25
Secondary school	497	2586	30.9	22.37	40.99
Class					
Standard 4	147	912	37.8	32.85	42.94
Standard 5	60	534	24.3	14.59	37.53
Standard 6	37	419	21.1	13.29	31.76
Form 1	129	520	26.7	18.87	36.44
Form 2	124	562	31.8	23.17	41.96
Form 3	72	454	26.6	15.43	41.81
Form 4	102	512	35.0	25.06	46.50
Form 5	70	539	36.2	27.06	46.42
School session					
Morning session	440	2703	27.8	21.89	34.58
Evening session					
Morning and evening session	301	1748	33.5	24.77	43.56
BMI-for-age status (BAZ)					
Thinness (<-2sd)	45	276	29.7	18.91	43.43
Normal (≥-2sd - ≤+1sd)	442	2630	28.6	22.52	35.49
Overweight (>+1sd - ≤+2sd)	143	885	35.3	27.41	43.99
Obese (>+2sd)	111	660	28.6	21.39	37.01
Height-for-age status (HAZ)					
Stunting (<-2sd)	44	271	30.2	20.54	41.96
Normal (≥-2sd)	697	4181	29.7	23.63	36.61

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Table 3.4.26 : Type of snack food and/ or drinks usually bought out of school area among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of food/ drinks									
	Candy/chocolate					French fries/nugget/sausage				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	433	2469	16.5	13.24	20.35	278	1691	11.3	8.61	14.68
Locality of school										
Urban	433	2469	16.5	13.24	20.35	278	1691	11.3	8.61	14.68
Rural										
Sex										
Boys	187	1065	13.3	9.86	17.71	164	987	12.3	8.48	17.57
Girls	246	1403	20.1	15.95	25.11	114	704	10.1	7.87	12.90
Ethnicity										
Malay	429	2447	16.7	13.33	20.66	273	1662	11.3	8.65	14.69
Chinese	1	7	17.9	1.64	73.96					
Indian	1	4	4.3	0.99	16.58	1	4	4.1	0.42	30.02
Bumiputera Sabah	1	5	6.9	0.65	45.61	1	4	6.0	0.77	34.51
Bumiputera Sarawak	1	6	9.7	0.99	53.57	1	8	11.9	1.24	59.23
Others						2	14	45.0	7.54	89.15
School level										
Primary school	107	853	12.9	11.23	14.84	107	843	12.8	8.76	18.28
Secondary school	326	1616	19.3	14.55	25.11	171	848	10.1	7.05	14.34
Class										
Standard 4	52	318	13.2	10.14	17.01	54	319	13.2	8.44	20.15
Standard 5	35	318	14.4	11.60	17.83	33	296	13.4	8.37	20.88
Standard 6	20	217	10.9	7.02	16.62	20	228	11.5	6.81	18.76
Form 1	109	429	22.0	17.65	27.19	57	221	11.4	6.76	18.45
Form 2	67	295	16.7	12.27	22.38	39	174	9.8	6.59	14.44
Form 3	48	290	17.0	10.31	26.64	34	206	12.0	8.30	17.18
Form 4	56	268	18.2	10.62	29.53	24	118	8.0	5.69	11.25
Form 5	46	334	22.4	12.68	36.49	17	130	8.7	3.44	20.39
School session										
Morning session	292	1689	17.3	13.77	21.63	194	1220	12.5	9.10	17.01
Evening session	1	6	25.5	2.40	82.64					
Morning and evening session	140	774	14.8	10.99	19.75	84	472	9.1	6.32	12.81
BMI-for-age status (BAZ)										
Thinness (<-2sd)	29	167	17.9	11.84	26.21	14	85	9.2	4.66	17.33
Normal (≥-2sd - ≤+1sd)	287	1608	17.5	13.58	22.19	160	934	10.2	8.46	12.14
Overweight (>+1sd - ≤+2sd)	61	370	14.7	11.40	18.82	46	269	10.7	7.33	15.44
Obese (>+2sd)	56	324	14.0	9.68	19.80	57	388	16.7	10.19	26.27
Height-for-age status (HAZ)										
Stunting (<-2sd)	26	155	17.2	11.09	25.79	13	73	8.2	4.84	13.43
Normal (≥-2sd)	407	2314	16.4	13.15	20.37	265	1618	11.5	8.65	15.13

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Table 3.4.26 : Type of snack food and/ or drinks usually bought out of school area among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of snack food/ drinks									
	Flavoured drink/carbonated drink					Pickles				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	524	3280	21.9	18.10	26.26	48	287	1.9	1.24	2.95
Locality of school										
Urban	524	3280	21.9	18.10	26.26	48	287	1.9	1.24	2.95
Rural										
Sex										
Boys	332	2079	26.0	22.06	30.28	38	225	2.8	1.84	4.27
Girls	192	1201	17.2	12.36	23.55	10	62	0.9	0.43	1.83
Ethnicity										
Malay	509	3197	21.8	17.94	26.20	47	280	1.9	1.21	2.99
Chinese										
Indian	8	46	47.2	15.84	80.90	1	7	7.3	0.64	49.17
Bumiputera Sabah	6	30	45.0	16.43	77.28					
Bumiputera Sarawak										
Others	1	7	22.8	2.10	80.23					
School level										
Primary school	178	1560	23.6	19.52	28.32	20	158	2.4	1.23	4.59
Secondary school	346	1720	20.5	15.07	27.36	28	130	1.6	1.02	2.35
Class										
Standard 4	70	416	17.3	13.62	21.69	10	58	2.4	1.55	3.74
Standard 5	51	464	21.1	14.98	28.77	7	62	2.8	1.35	5.72
Standard 6	57	680	34.2	22.90	47.65	3	38	1.9	0.56	6.16
Form 1	111	438	22.5	17.26	28.78	10	39	2.0	1.49	2.73
Form 2	79	349	19.8	13.34	28.34	11	47	2.7	1.33	5.29
Form 3	70	419	24.5	14.76	37.82	3	17	1.0	0.36	2.64
Form 4	52	263	17.9	11.80	26.25	1	6	0.4	0.05	2.91
Form 5	34	252	16.9	10.94	25.16	3	21	1.4	0.57	3.45
School session										
Morning session	345	2177	22.4	18.98	26.16	31	179	1.8	1.20	2.80
Evening session	1	4	17.9	1.57	74.84	1	4	18.6	3.05	62.46
Morning and evening session	178	1099	21.1	14.39	29.82	16	104	2.0	0.74	5.28
BMI-for-age status (BAZ)										
Thinness (<-2sd)	36	204	21.9	15.03	30.81	4	24	2.5	0.88	7.12
Normal (≥-2sd - ≤+1sd)	323	2028	22.0	17.93	26.78	25	137	1.5	0.85	2.60
Overweight (>+1sd - ≤+2sd)	88	573	22.8	16.61	30.53	6	42	1.7	0.72	3.79
Obese (>+2sd)	77	475	20.5	17.24	24.19	13	85	3.7	2.02	6.59
Height-for-age status (HAZ)										
Stunting (<-2sd)	24	147	16.4	11.21	23.39	3	21	2.3	0.74	7.14
Normal (≥-2sd)	499	3128	22.2	18.34	26.67	45	266	1.9	1.19	3.00

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Table 3.4.26 : Type of snack food and/ or drinks usually bought out of school area among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Type of food/ drink									
	Snack food					Fish cracker				
	Count	Estimated Population	Percentage (%)	95% CI		Count	Estimated Population	Percentage (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	236	1427	9.5	7.27	12.40	260	1577	10.5	8.44	13.06
Locality of school										
Urban	236	1427	9.5	7.27	12.40	260	1577	10.5	8.44	13.06
Rural										
Sex										
Boys	126	749	9.3	7.14	12.15	135	845	10.6	8.17	13.53
Girls	110	678	9.7	6.59	14.15	125	732	10.5	8.08	13.55
Ethnicity										
Malay	229	1390	9.5	7.19	12.38	254	1550	10.6	8.43	13.16
Chinese	2	12	29.3	4.61	78.07	1	5	11.4	1.00	62.29
Indian	1	4	4.1	0.42	30.02	1	4	4.3	0.99	16.58
Bumiputera Sabah	3	14	20.7	6.35	50.02					
Bumiputera Sarawak						3	14	21.3	5.82	54.14
Others	1	8	24.1	3.55	73.29	1	4	12.8	2.19	48.84
School level										
Primary school	71	585	8.9	5.65	13.65	73	634	9.6	7.54	12.17
Secondary school	165	842	10.0	7.20	13.85	187	943	11.3	8.12	15.41
Class										
Standard 4	35	217	9.0	7.38	10.96	30	186	7.7	5.41	10.92
Standard 5	22	204	9.3	4.11	19.53	23	214	9.7	5.91	15.53
Standard 6	14	164	8.3	3.80	17.04	20	234	11.8	9.22	14.91
Form 1	46	184	9.5	6.80	13.04	49	194	10.0	6.43	15.15
Form 2	33	145	8.2	5.33	12.40	41	175	9.9	5.96	16.06
Form 3	23	140	8.2	4.78	13.66	30	179	10.5	6.66	16.04
Form 4	40	198	13.5	9.75	18.37	39	188	12.8	10.18	16.09
Form 5	23	175	11.7	6.37	20.64	28	207	13.9	8.63	21.59
School session										
Morning session	158	995	10.2	7.87	13.18	158	963	9.9	7.85	12.37
Evening session						3	15	63.5	25.34	89.94
Morning and evening session	78	431	8.3	4.98	13.46	99	600	11.5	8.53	15.36
BMI-for-age status (BAZ)										
Thinness (<-2sd)	12	82	8.8	3.65	19.81	16	94	10.1	5.87	16.79
Normal (≥-2sd - ≤+1sd)	152	944	10.3	7.98	13.11	167	971	10.6	8.46	13.09
Overweight (>+1sd - ≤+2sd)	40	231	9.2	5.65	14.57	43	268	10.7	7.28	15.40
Obese (>+2sd)	32	170	7.3	4.88	10.86	34	244	10.5	6.06	17.63
Height-for-age status (HAZ)										
Stunting (<-2sd)	13	82	9.1	5.05	15.91	11	64	7.1	4.31	11.53
Normal (≥-2sd)	223	1345	9.6	7.32	12.39	249	1513	10.8	8.50	13.52

Table 3.4.26: Type of snack food and/ or drinks usually bought out of school area among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Type of snack foods				
	Count	Estimated Population	Ice cream Percentage (%)	95% CI	
				Lower	Upper
WP Putrajaya	425	2618	17.5	13.03	23.06
Locality of school					
Urban	425	2618	17.5	13.03	23.06
Rural					
Sex					
Boys	160	989	12.3	7.99	18.60
Girls	265	1629	23.4	18.04	29.75
Ethnicity					
Malay	418	2582	17.6	13.11	23.20
Chinese	2	13	32.9	5.38	80.80
Indian	4	20	20.0	10.08	35.92
Bumiputera Sabah					
Bumiputera Sarawak	1	4	5.5	0.54	38.29
Others					
School level					
Primary school	128	1125	17.0	12.19	23.33
Secondary school	297	1493	17.8	11.30	26.97
Class					
Standard 4	42	273	11.3	6.40	19.30
Standard 5	47	432	19.6	16.20	23.57
Standard 6	39	420	21.1	11.55	35.42
Form 1	88	354	18.2	12.34	25.99
Form 2	72	320	18.1	11.29	27.80
Form 3	51	313	18.3	10.13	30.89
Form 4	53	259	17.6	9.72	29.82
Form 5	33	248	16.6	9.60	27.23
School session					
Morning session	258	1601	16.4	13.31	20.14
Evening session	3	13	55.9	19.23	87.09
Morning and evening session	163	998	19.2	10.38	32.67
BMI-for-age status (BAZ)					
Thinness (<-2sd)	41	248	26.7	15.53	41.86
Normal (≥-2sd - ≤+1sd)	259	1567	17.0	13.14	21.79
Overweight (>+1sd - ≤+2sd)	60	390	15.5	10.01	23.35
Obese (>+2sd)	65	412	17.8	11.50	26.46
Height-for-age status (HAZ)					
Stunting (<-2sd)	31	196	21.9	13.34	33.76
Normal (≥-2sd)	394	2422	17.2	12.61	23.04

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Table 3.4.27 : Media sources which affected dietary pattern among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Sources of media									
	Social media					Television				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	1098	6654	44.4	40.62	48.28	911	5630	37.6	33.45	41.90
Locality of school										
Urban	1098	6654	44.4	40.62	48.28	911	5630	37.6	33.45	41.90
Rural										
Sex										
Boys	540	3314	41.3	37.97	44.79	481	2926	36.5	30.89	42.52
Girls	558	3341	48.0	42.86	53.10	430	2704	38.8	34.05	43.80
Ethnicity										
Malay	1077	6528	44.5	40.45	48.55	889	5507	37.5	33.25	41.98
Chinese	5	32	81.1	38.42	96.72	2	12	29.3	4.61	78.07
Indian	6	30	31.2	8.08	70.11	11	65	66.5	41.84	84.52
Bumiputera Sabah	3	20	30.2	7.47	69.95	4	17	25.7	8.78	55.39
Bumiputera Sarawak	5	31	46.5	18.30	77.08	3	17	25.3	6.32	62.92
Others	2	13	42.2	11.25	80.80	2	13	40.3	6.47	86.84
School level										
Primary school	322	2694	40.8	35.66	46.12	359	2883	43.6	39.69	47.68
Secondary school	776	3961	47.3	43.01	51.59	552	2747	32.8	29.25	36.55
Class										
Standard 4	137	834	34.5	29.98	39.39	188	1163	48.2	39.88	56.56
Standard 5	100	908	41.2	32.82	50.18	109	991	45.0	37.14	53.12
Standard 6	85	952	47.9	40.39	55.50	62	728	36.6	34.03	39.34
Form 1	208	829	42.6	38.77	46.53	169	665	34.2	29.12	39.63
Form 2	175	765	43.4	36.88	50.12	121	540	30.6	26.14	35.52
Form 3	126	771	45.1	37.72	52.74	88	534	31.2	23.40	40.31
Form 4	157	772	52.6	44.79	60.32	112	549	37.4	29.97	45.58
Form 5	110	823	55.2	47.56	62.68	62	458	30.8	22.97	39.85
School session										
Morning session	688	4218	43.3	39.11	47.64	581	3653	37.5	33.29	41.95
Evening session	2	10	44.3	7.22	89.06	3	15	63.5	25.34	89.94
Morning and evening session	407	2420	46.4	41.45	51.42	326	1957	37.5	32.45	42.85
BMI-for-age status (BAZ)										
Thinness (<-2sd)	71	411	44.2	34.14	54.72	61	391	42.0	33.82	50.68
Normal (≥-2sd - ≤+1sd)	692	4194	45.5	41.13	50.03	543	3330	36.2	31.43	41.18
Overweight (>+1sd - ≤+2sd)	179	1076	42.9	37.89	47.97	153	949	37.8	32.68	43.19
Obese (>+2sd)	155	960	41.4	36.53	46.45	154	961	41.4	36.12	46.92
Height-for-age status (HAZ)										
Stunting (<-2sd)	56	344	38.3	28.61	49.04	53	339	37.8	27.97	48.71
Normal (≥-2sd)	1042	6311	44.8	41.07	48.63	858	5291	37.6	33.47	41.88

Table 3.4.27 : Media sources which affected dietary pattern among adolescents by socio-demographic characteristics and nutritional status (Cont..)

Characteristics	Sources of media									
	Radio					Printed media				
	Count	Estimated Population	Prevalence (%)	95% CI		Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP Putrajaya	73	406	2.7	2.03	3.62	142	823	5.5	4.03	7.44
Locality of school										
Urban	73	406	2.7	2.03	3.62	142	823	5.5	4.03	7.44
Rural										
Sex										
Boys	54	284	3.5	2.34	5.34	78	450	5.6	4.08	7.68
Girls	19	122	1.8	1.10	2.79	64	372	5.3	3.57	7.94
Ethnicity										
Malay	69	389	2.6	2.05	3.42	138	799	5.4	4.09	7.21
Chinese						2	15	37.8	4.69	88.25
Indian	3	13	13.5	2.91	45.01	2	9	8.7	3.31	21.09
Bumiputera Sabah	1	5	6.9	0.65	45.61					
Bumiputera Sarawak										
Others										
School level										
Primary school	24	176	2.7	1.99	3.54	38	287	4.3	3.47	5.43
Secondary school	49	231	2.8	1.74	4.35	104	536	6.4	4.18	9.68
Class										
Standard 4	15	89	3.7	2.66	5.07	25	150	6.2	4.55	8.41
Standard 5	7	63	2.9	1.91	4.25	6	57	2.6	1.38	4.85
Standard 6	2	24	1.2	0.32	4.39	7	80	4.0	1.91	8.31
Form 1	14	56	2.9	1.26	6.38	25	100	5.2	3.91	6.77
Form 2	18	79	4.5	2.00	9.59	29	129	7.3	5.17	10.22
Form 3	8	46	2.7	0.98	7.24	16	98	5.7	2.86	11.09
Form 4	6	30	2.0	0.95	4.21	18	90	6.1	2.75	13.13
Form 5	3	21	1.4	0.57	3.43	16	119	8.0	2.57	22.16
School session										
Morning session	54	296	3.0	1.97	4.66	88	518	5.3	3.87	7.29
Evening session						1	4	19.2	3.12	63.69
Morning and evening session	19	110	2.1	1.27	3.51	53	300	5.8	3.75	8.74
BMI-for-age status (BAZ)										
Thinness (<-2sd)	4	21	2.2	0.69	6.98	8	52	5.6	1.91	15.18
Normal (≥-2sd - ≤+1sd)	45	253	2.7	1.83	4.10	84	474	5.1	3.52	7.45
Overweight (>+1sd - ≤+2sd)	8	46	1.8	0.82	4.01	28	173	6.9	4.57	10.28
Obese (>+2sd)	16	87	3.7	2.15	6.44	22	124	5.3	3.28	8.60
Height-for-age status (HAZ)										
Stunting (<-2sd)	6	26	2.9	1.20	6.81	9	47	5.2	2.23	11.62
Normal (≥-2sd)	67	380	2.7	2.00	3.65	132	772	5.5	4.09	7.30

Table 3.4.27 : Media sources which affected dietary pattern among adolescents by socio-demographic characteristics and nutritional status

Characteristics	Sources of media				
	Count	Estimated Population	Prevalence (%)	Not affected	
				Lower	Upper
WP Putrajaya	618	3681	24.6	20.72	28.88
Locality of school					
Urban	618	3681	24.6	20.72	28.88
Rural					
Sex					
Boys	346	2059	25.7	20.96	31.06
Girls	272	1622	23.3	18.97	28.26
Ethnicity					
Malay	605	3605	24.6	20.48	29.15
Chinese					
Indian	2	8	8.6	1.65	34.45
Bumiputera Sabah	5	30	45.9	16.57	78.37
Bumiputera Sarawak	4	27	40.2	13.92	73.57
Others	2	11	35.6	8.75	76.05
School level					
Primary school	168	1387	21.0	15.40	27.97
Secondary school	450	2294	27.4	23.56	31.58
Class					
Standard 4	75	468	19.4	12.06	29.59
Standard 5	54	480	21.8	15.95	29.06
Standard 6	39	439	22.1	14.55	32.13
Form 1	135	545	28.0	23.67	32.77
Form 2	115	518	29.3	22.86	36.76
Form 3	87	535	31.3	25.05	38.37
Form 4	65	325	22.1	19.13	25.43
Form 5	48	372	25.0	17.14	34.87
School session					
Morning session	391	2384	24.5	21.10	28.22
Evening session	2	9	36.5	10.06	74.66
Morning and evening session	225	1289	24.7	18.53	32.13
BMI-for-age status (BAZ)					
Thinness (<-2sd)	36	217	23.3	16.34	32.09
Normal (≥-2sd - ≤+1sd)	404	2361	25.6	20.90	31.04
Overweight (>+1sd - ≤+2sd)	97	603	24.0	20.63	27.77
Obese (>+2sd)	81	500	21.6	18.24	25.33
Height-for-age status (HAZ)					
Stunting (<-2sd)	42	267	29.8	22.73	37.88
Normal (≥-2sd)	576	3415	24.3	20.38	28.59

3.5 Physical activity among adolescents (Primary 4 To Secondary 5) In WP Putrajaya

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3.5.1 Introduction

Physical activity is defined as any bodily movement produced by skeletal muscle that requires energy expenditure. According to World Health Organization (2010) and Malaysian Dietary Guidelines for Children and Adolescents (NCCFN, 2013), children and adolescents should accumulate at least 60 minutes or more of either moderate or vigorous intensity activity daily. Ideally, daily screen time should not more than two hours a day and children and adolescents should not be sedentary for more than 60 minutes at a time.

3.5.2 Objectives

The general objective of this study was to assess physical activity pattern among adolescents and the specific objectives as follows:

- To determine the physical activity level.
- To evaluate the most five preferred physical activities during spare time.
- To assess the level of participation in physical education (PE) classes.
- To evaluate the duration of watching television, using computer and playing video games during weekend and schooling days.

3.5.3 Variable definitions

Physical Activity Assessment - The physical activity Questionnaire for Older Children (PAQ-C) was adapted from Kowalski et al (2004) to assess the general level of physical activity of the adolescents.

Physical Activity Classifications - The total mean scores of PAQ-C was classified into three categories of either 'low physical activity' (Score: 1.00-2.33), 'moderate physical activity' (Score: 2.34-3.66) or 'high physical activity' (Score: 3.67-5.00).

Screen time - Screen time refers to the time spent on screen-based behaviours. For example: Watching television, playing video games and using the computer or surfing the internet.

3.5.4 Findings

The PAQ-C mean score for the physical activity level for adolescent in WP Putrajaya was 2.47 (95% CI: 2.33, 2.60) (**Table 3.5.1**). Overall, a total of 54.9 % (95% CI: 45.85, 63.68) adolescents were physically active and 45.1% (95% CI: 36.32, 54.15) of them were not active. The prevalence of physically active was significantly higher among boys [(64.4% (95% CI: 57.57, 70.77)] compared to girls, 43.9% (95% CI: 33.23, 55.23). By school level, primary students [(65.9% (95% CI: 61.12, 70.46))] showed higher prevalence of physically active than secondary students [(46.3% (95% CI: 35.18, 57.71))]. In term of BMI-for-age status, there was no significant different of physically active among thinness [47.9% (95% CI: 37.87, 58.16)], normal [56.1% (95% CI: 45.91, 65.79)], overweight [54.0% (95% CI: 45.06, 62.70)] and obese [53.7% (95% CI: 43.40, 63.84)] (**Table 3.5.2**) adolescents.

The most popular spare-time physical activity according to percentage of adolescents in WP Putrajaya was walking for exercise [87.2% (95% CI: 84.75, 89.24)] (**Table 3.5.3**). The prevalence of students who reported do not attend/very rarely participated in PE class were 15.1% (95% CI: 12.51, 18.15)] (**Table 3.5.4**). During school days, 26.3% (95% CI: 21.45, 31.72) of adolescents watched television, used computers and played video games more than 2 hours per day (**Table 3.5.6**). Meanwhile, 44.4% (95% CI: 36.64, 52.38) of the adolescents engaged on these activities for more than 2 hours during weekend (**Table 3.5.5**).

3.5.5 Discussion

The prevalence of physically active adolescents in WP Putrajaya was the highest compared to other states. Boys and primary school students are significantly more physically active than girls and secondary school students. There was no significant difference in terms of school locality and BMI-for-age status of the respondents. The prevalence of adolescents that engaged on screen activities more than 2 hours was higher during weekends than school days.

3.5.6 Conclusion

Based on the findings from this survey, 45.1% of children and adolescents in WP Putrajaya were physically inactive. The prevalence of physically inactive among Malaysian adolescents was slightly decreased as compared to the Malaysian School-Based Nutrition Survey (2012), but still remains high. Therefore, more programmes and strategies to increase physical activity should be implemented among the children and adolescents in Malaysia

3.5.7 Recommendations

Adolescents should be encouraged to be more active in their daily life. Policy and campaign to promote physical activity among children and adolescents should be enhanced and health promotion activities to increase physical activity should be promoted. A comprehensive

surveillance system for monitoring physical activity should be developed to ensure compliance with physical activity recommendation among children and adolescents.

Parents should be encouraged to be good role models; be active, limit the amount of sedentary and screen time behaviours, and monitor physical activity sedentary behaviours as well as screen time of their children. Interviewing technique for physical activity assessment should be applied in future study. Adolescents should be encouraged to get physically active in their daily life. Formulating specific program and intensifying health campaign are essential to promote physical activity among children and adolescents. Developing surveillance systems for physical activity enables compliance based on the standard recommendations. Parents should incalculate active lifestyle qualities, limit the amount of sedentary and screen time behaviors among their children. Improving technique for physical activity assessment is also a must.

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Table 3.5.1: Mean total scores in PAQ-C among adolescents within last 7 days by socia-demographic characteristics and BMI - for - age status

Characteristic	Mean total scores in PAQ-C		
	Mean	95% CI	
		Lower	Upper
WP PUTRAJAYA	2.47	2.33	2.60
Locality of school			
Urban	2.47	2.33	2.60
Rural	-	-	-
Sex			
Boys	2.61	2.50	2.72
Girls	2.30	2.15	2.44
Class			
Standard 4	2.62	2.54	2.70
Standard 5	2.60	2.50	2.69
Standard 6	2.65	2.55	2.75
Form 1	2.43	2.33	2.52
Form 2	2.38	2.14	2.61
Form 3	2.36	2.11	2.61
Form 4	2.31	2.08	2.54
Form 5	2.21	2.04	2.38
Ethnicity			
Malay	2.46	2.33	2.60
Chinese	2.28	1.85	2.71
Indian	2.49	2.24	2.74
Bumiputera Sabah	2.76	2.39	3.14
Bumiputera Sarawak	2.50	2.09	2.91
Others	2.34	1.76	2.93
School Category			
Primary	2.62	2.55	2.69
Secondary	2.34	2.17	2.52
BMI-for-age status (BAZ)			
Thinness (<-2sd)	2.36	2.24	2.49
Normal (\geq -2sd - \leq +1sd)	2.49	2.34	2.64
Overweight ($>$ +1sd - \leq +2sd)	2.44	2.30	2.58
Obese ($>$ +2sd)	2.45	2.31	2.58
Height-for-age status (HAZ)			
Stunting (<-2sd)	2.41	2.23	2.58
Normal (\geq -2sd)	2.47	2.33	2.60

Note:

Mean Score	Physical Activity Level (PAL)
1.00 - 2.33	Low
2.34 - 3.66	Moderate
3.67 - 5.00	High

(Kowalski et. al., 2004)

Table 3.5.2: Distribution of adolescents according to physical activity level within last 7 days by socio-demographic characteristics and BMI - for - age status

Characteristic	Physical activity level									
	Active					Not active				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP PUTRAJAYA	1302	8151	54.9	45.85	63.68	1146	6691	45.1	36.32	54.15
Locality of School										
Urban	1302	8151	54.9	45.85	63.68	1146	6691	45.1	36.32	54.15
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	833	5119	64.4	57.57	70.77	483	2825	35.6	29.23	42.43
Girls	469	3032	43.9	33.23	55.27	663	3867	56.1	44.73	66.77
Class										
Standard 4	263	1595	67.3	59.95	73.85	123	775	32.7	26.15	40.05
Standard 5	151	1356	61.6	54.01	68.63	93	846	38.4	31.37	45.99
Standard 6	116	1356	69.2	61.77	75.80	55	603	30.8	24.20	38.23
Form 1	252	1007	52.6	46.97	58.11	229	908	47.4	41.89	53.03
Form 2	187	837	47.7	32.74	63.00	209	919	52.3	37.00	67.26
Form 3	130	793	46.8	31.68	62.47	148	903	53.2	37.53	68.32
Form 4	129	655	44.8	30.06	60.52	167	807	55.2	39.48	69.94
Form 5	74	552	37.3	25.10	51.30	122	929	62.7	48.70	74.90
Ethnicity										
Malay	1271	7964	54.7	45.59	63.58	1126	6585	45.3	36.42	54.41
Chinese	4	26	81.5	26.31	98.20	1	6	18.5	1.80	73.69
Indian	8	43	44.5	23.38	67.78	10	54	55.5	32.22	76.62
Bumiputera Sabah	10	58	88.2	57.47	97.66	2	8	11.8	2.34	42.53
Bumiputera Sarawak	7	48	72.3	33.85	93.03	4	18	27.7	6.97	66.15
Others	2	11	35.6	8.75	76.05	3	20	64.4	23.95	91.25
School Category										
Primary	530	4307	65.9	61.12	70.46	271	3844	34.1	29.54	38.88
Secondary	772	2224	46.3	35.18	57.71	875	4467	53.7	42.29	64.82
BMI-for-age status (BAZ)										
Thinness (<-2sd)	70	439	47.9	37.87	58.16	82	477	52.1	41.84	62.13
Normal (≥-2sd - ≤+1sd)	833	5129	56.1	45.91	65.79	691	4014	43.9	34.21	54.09
Overweight (>+1sd - ≤+2sd)	206	1333	54.0	45.06	62.70	194	1135	46.0	37.30	54.94
Obese (>+2sd)	192	1237	53.7	43.30	63.84	179	1065	46.3	36.16	56.70
Height-for-age status (HAZ)										
Stunting (<-2sd)	70	441	49.6	36.53	62.78	73	447	50.4	37.22	63.47
Normal (≥-2sd)	1232	7711	55.3	46.19	64.02	1072	6239	44.7	35.98	53.81

Notes:

Low PAL is classified as not active

Table 3.5.3: The five most preferred physical activities during spare time within the last 7 days based on the proportion of adolescents participated in it

The five most preferred physical activities	Count	Prevalence (%)	95% CI	
			Lower	Upper
Walking for exercise	2150	87.2	84.75	89.24
Jogging/Running	2058	83.9	79.89	87.27
Tagging	1743	72.1	61.47	80.70
Badminton	1459	61.2	47.76	73.08
Cycling	1341	56.7	44.43	68.15

Table 3.5.4: Level of participation in physical education (PE) classes among adolescents within last 7 days by socio demographic characteristics and BMI - for-age status (Cont.)

Characteristic	I do not attend the PE class / Very Rare					Occasionally/ Quite Often				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	390	2262	15.1	12.51	18.15	1328	8139	54.4	50.69	58.03
Locality of school										
Urban	390	2262	15.1	12.51	18.15	1328	8139	54.4	50.69	58.03
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	232	1335	16.7	14.09	19.61	644	3934	49.1	44.46	53.78
Girls	158	927	13.3	10.31	17.07	684	4205	60.5	55.73	64.98
Class										
Standard 4	69	419	17.4	12.75	23.19	203	1262	52.2	46.59	57.82
Standard 5	30	268	12.2	6.84	20.76	136	1236	56.1	53.92	58.25
Standard 6	16	185	9.4	6.43	13.45	109	1217	61.5	52.01	70.24
Form 1	72	279	14.3	10.07	19.97	266	1059	54.4	49.16	59.56
Form 2	67	294	16.7	11.22	24.05	204	906	51.4	42.80	59.87
Form 3	34	203	11.9	7.25	18.92	165	1001	58.6	49.07	67.49
Form 4	59	285	19.5	11.45	31.16	146	715	48.9	42.24	55.66
Form 5	43	329	22.1	11.58	37.99	99	743	49.9	40.92	58.91
Ethnicity										
Malay	377	2190	14.9	12.33	17.96	1304	8008	54.6	50.83	58.33
Chinese	2	13	32.9	5.38	80.80	2	12	30.3	8.91	65.98
Indian	2	11	11.6	2.77	37.61	11	62	63.7	33.05	86.14
Bumiputera Sabah	4	16	23.9	8.32	51.96	5	21	31.9	10.92	64.19
Bumiputera Sarawak	5	32	49.1	17.96	80.94	2	8	12.6	2.70	42.84
Others						4	27	87.2	51.16	97.81
School level										
Primary	115	873	13.2	11.48	15.21	448	3714	56.3	52.23	60.30
Secondary	275	1390	16.6	12.56	21.62	880	4425	52.9	47.43	58.23
BMI-for-age status (BAZ)										
Thinness (<-2sd)	29	165	17.7	12.40	24.70	81	483	51.9	43.33	60.43
Normal (≥-2sd - ≤+1sd)	224	1285	14.0	11.21	17.29	801	4823	52.4	47.88	56.94
Overweight (>+1sd - ≤+2sd)	72	413	16.5	12.86	20.89	221	1429	57.0	49.55	64.18
Obese (>+2sd)	65	399	17.2	14.07	20.87	225	1405	60.6	54.84	66.04
Height-for-age status (HAZ)										
Stunting (<-2sd)	25	149	16.6	10.61	24.98	83	503	56.0	47.02	64.68
Normal (≥-2sd)	365	2114	15.0	12.45	18.02	1245	7637	54.3	50.59	57.95

Table 3.5.4: Level of participation in physical education (PE) classes among adolescents within last 7 days by socio demographic characteristics and BMI - for-age status

Characteristic	Count	Estimated population	Always Prevalence (%)	95% CI	
				Lower	Upper
WP PUTRAJAYA	753	4565	30.5	27.21	34.01
Locality of school					
Urban	753	4565	30.5	27.21	34.01
Rural	-	-	-	-	-
Sex					
Boys	454	2741	34.2	30.05	38.65
Girls	299	1824	26.2	21.52	31.53
Class					
Standard 4	122	735	30.4	25.35	35.98
Standard 5	78	699	31.7	25.69	38.45
Standard 6	48	576	29.1	22.87	36.25
Form 1	151	609	31.3	25.10	38.18
Form 2	127	564	32.0	24.90	39.96
Form 3	81	504	29.5	20.26	40.86
Form 4	91	462	31.6	25.94	37.84
Form 5	55	417	28.0	17.49	41.66
Ethnicity					
Malay	738	4468	30.5	27.11	34.03
Chinese	2	15	36.8	11.43	72.41
Indian	5	24	24.8	7.42	57.50
Bumiputera Sabah	3	29	44.2	13.66	79.89
Bumiputera Sarawak	4	25	38.3	13.19	71.73
Others	1	4	12.8	2.19	48.84
School level					
Primary	248	2009	30.5	26.25	35.03
Secondary	505	2556	30.5	25.78	35.75
BMI-for-age status (BAZ)					
Thinness (<-2sd)	44	282	30.3	24.15	37.33
Normal (≥-2sd - ≤+1sd)	509	3090	33.6	29.78	37.64
Overweight (>+1sd - ≤+2sd)	114	664	26.5	20.18	33.95
Obese (>+2sd)	85	515	22.2	16.79	28.79
Height-for-age status (HAZ)					
Stunting (<-2sd)	37	246	27.4	19.66	36.75
Normal (≥-2sd)	715	4315	30.7	27.46	34.09

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Table 3.5.5: Length of time spent per day on watching television, using computer and playing video games at weekends among adolescents by socio-demographic characteristics and BMI-for-age status

Characteristic	Less than 2 hour					More than 2 hours				
	Unweighted count	Estimated population	Prevalence (%)	95% CI		Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	1346	8334	55.6	47.62	63.36	1127	6648	44.4	36.64	52.38
Locality of school										
Urban	1346	8334	55.6	47.62	63.36	1127	6648	44.4	36.64	52.38
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	743	4435	55.3	49.04	61.44	588	3581	44.7	38.56	50.96
Girls	603	3899	56.0	44.21	67.11	539	3066	44.0	32.89	55.79
Class										
Standard 4	271	1688	69.9	64.45	74.78	123	728	30.1	25.22	35.55
Standard 5	152	1387	63.0	58.84	66.92	92	816	37.0	33.08	41.16
Standard 6	114	1262	63.5	50.22	75.01	60	725	36.5	24.99	49.78
Form 1	269	1067	54.8	48.83	60.69	220	880	45.2	39.31	51.17
Form 2	202	892	50.6	41.40	59.71	196	872	49.4	40.29	58.60
Form 3	123	744	43.5	34.09	53.49	157	965	56.5	46.51	65.91
Form 4	126	625	42.6	32.51	53.37	171	842	57.4	46.63	67.49
Form 5	89	668	44.9	27.35	63.80	108	821	55.1	36.20	72.65
Ethnicity										
Malay	1317	8167	55.6	47.55	63.43	1104	6513	44.4	36.57	52.45
Chinese	2	15	36.8	11.43	72.41	4	25	63.2	27.59	88.57
Indian	11	60	61.8	38.92	80.45	7	37	38.2	19.55	61.08
Bumiputera Sabah	6	32	48.9	16.65	82.05	6	34	51.1	17.95	83.35
Bumiputera Sarawak	7	43	64.5	31.11	87.98	4	23	35.5	12.02	68.89
Others	3	17	53.1	16.57	86.58	2	15	46.9	13.42	83.43
School level										
Primary	537	4336	65.7	61.72	69.38	275	2269	34.3	30.62	38.28
Secondary	809	3997	47.7	38.33	57.28	852	4379	52.3	42.72	61.67
BMI-for-age status (BAZ)										
Thinness (<-2sd)	91	569	61.2	47.49	73.33	63	361	38.8	26.67	52.51
Normal (≥-2sd - ≤+1sd)	838	5142	55.8	47.32	64.03	697	4066	44.2	35.97	52.68
Overweight (>+1sd - ≤+2sd)	225	1449	57.7	49.00	65.94	183	1062	42.3	34.06	51.00
Obese (>+2sd)	191	1161	50.1	41.23	58.87	184	1158	49.9	41.13	58.77
Height-for-age status (HAZ)										
Stunting (<-2sd)	83	522	58.2	48.42	67.46	62	374	41.8	32.54	51.58
Normal (≥-2sd)	1262	7807	55.4	47.15	63.45	1065	6273	44.6	36.55	52.85

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Table 3.5.6: Length of time spent per day on watching television, using computer and playing video games on schooling days among adolescents by socio-demographic characteristics and BMI-for-age status

Characteristic	Less than 2 hour					More than 2 hours				
	Unweighted count	Estimated population	Prevalence (%)	95% CI		Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	1784	11036	73.7	68.28	78.55	686	3931	26.3	21.45	31.72
Locality of school										
Urban	1784	11036	73.7	68.28	78.55	686	3931	26.3	21.45	31.72
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	948	5777	72.1	65.31	78.08	381	2231	27.9	21.92	34.69
Girls	836	5259	75.6	69.09	81.05	305	1701	24.4	18.95	30.91
Class										
Standard 4	294	1824	75.7	69.20	81.14	99	587	24.3	18.86	30.80
Standard 5	199	1794	81.5	76.63	85.50	45	408	18.5	14.50	23.37
Standard 6	140	1569	79.0	71.39	84.94	34	418	21.0	15.06	28.61
Form 1	342	1371	70.6	63.10	77.05	146	572	29.4	22.95	36.90
Form 2	271	1208	68.5	58.80	76.79	127	556	31.5	23.21	41.20
Form 3	201	1234	72.5	64.86	79.01	78	468	27.5	20.99	35.14
Form 4	198	983	67.0	58.38	74.54	99	485	33.0	25.46	41.62
Form 5	139	1052	70.7	54.36	82.96	58	437	29.3	17.04	45.64
Ethnicity										
Malay	1751	10834	73.9	68.46	78.63	667	3833	26.1	21.37	31.54
Chinese	4	28	70.7	21.93	95.39	2	12	29.3	4.61	78.07
Indian	11	62	64.0	40.46	82.28	7	35	36.0	17.72	59.54
Bumiputera Sabah	5	36	54.8	19.65	85.76	7	30	45.2	14.24	80.35
Bumiputera Sarawak	9	52	78.4	37.51	95.65	2	14	21.6	4.35	62.49
Others	4	24	75.9	26.71	96.45	1	8	24.1	3.55	73.29
School level										
Primary	633	5187	78.6	73.80	82.71	178	1413	21.4	17.29	26.20
Secondary	1151	5849	69.9	62.24	76.59	508	2518	30.1	23.41	37.76
BMI-for-age status (BAZ)										
Thinness (<-2sd)	113	686	73.8	62.21	82.75	41	244	26.2	17.25	37.79
Normal ($\geq-2sd$ - $\leq+1sd$)	1113	6840	74.3	68.93	78.99	422	2369	25.7	21.01	31.07
Overweight ($>+1sd$ - $\leq+2sd$)	301	1897	75.8	69.09	81.44	105	606	24.2	18.56	30.91
Obese ($>+2sd$)	256	1600	69.2	61.72	75.74	118	713	30.8	24.26	38.28
Height-for-age status (HAZ)										
Stunting (<-2sd)	106	661	73.6	63.47	81.81	39	236	26.4	18.19	36.53
Normal ($\geq-2sd$)	1677	10371	73.7	68.33	78.50	647	3695	26.3	21.50	31.67

3.6. Supplements intake among adolescents (Primary 4 to Secondary 5) in WP Putrajaya

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3.6.1 Introduction

Dietary supplements are defined as “a product (other than tobacco) intended to supplement the diet that bears or contains one or more of the following dietary ingredients: a vitamin, a mineral, an herb or other botanical, an amino acid, or a dietary substance for use by man to supplement the diet by increasing the total dietary intake, or a concentrate, metabolite, constituent, extract, or combination of the above ingredients” (DV Porter, 2001). The use of supplements becomes common behavior among people due to general health concerns. In 2014, approximately 54.1% and 40.2% of Malaysian adolescents consumed vitamin/mineral and food supplements respectively (Sien, Shahril, Mutalip, 2014). This prevalence was found to be higher than that in other countries (Picciano, Dwyer, Radimer, 2007; Yoon, Park, Kang, 2009; Sichert-Hellert and Kersting, 2004).

High dietary supplement intake suggests a wide use of dietary supplements among adolescents despite the unclear guideline or recommendation on dietary supplements. The long-term potentially dangerous effects related to unrestrained consumption of dietary supplements are still unknown and are becoming a matter of public health concern. Reports on dietary supplements intake pattern among Malaysian adolescents are limited. Therefore, the aims of the current study were to assess the frequency, reasons and types of vitamin/mineral and food supplement use among Malaysian adolescents.

3.6.2 Objectives

General objective

To determine the pattern of use of vitamin/mineral and food supplements among Malaysian adolescents.

Specific objective

- To determine the most commonly taken vitamin/mineral supplements.
- To determine the most commonly taken food supplements.
- To identify the reason(s) of taking vitamin/mineral supplements.
- To identify the reason(s) of taking food supplements.
- To determine the frequency of vitamin/mineral supplements intake.
- To determine the frequency of food supplements intake.

3.6.3 Findings

The prevalence of vitamin / minerals and food supplements intake among adolescence in Wilayah Persekutuan Putrajaya was 56.1% (95% CI: 45.23-66.37) (**Table 3.6.1**) and 41.4% (95% CI: 31.42-52.14) (**Table 3.6.5**) respectively. There was no significant difference of vitamin/mineral and food supplement intakes by sex, ethnicity, school classes and localities (**Table 3.6.1** and **Table 3.6.5**). In average, the vitamin/mineral and food supplements were consumed everyday by 19% (95% CI 15.35-23.19) and 11.1% (95% CI 7.94-15.26) adolescents respectively (**Table 3.6.4** and **Table 3.6.8**). The most commonly consumed vitamin / minerals and food supplements were Vitamin C with 39.5% (95% CI: 30.92-48.87) (**Table 3.6.2**) and bee product, 19.87% (95% CI: 14.53-26.57) (**Table 3.6.6**). The main reason for taking vitamin / minerals [46.1% (95% CI: 42.0-50.30)] (**Table 3.6.3**) and food supplements [28.3% (95% CI: 24.3 -32.60)] (**Table 3.6.7**).was due to parent's advice.

3.6.4 Discussions

The prevalence of taking vitamin/minerals and food supplements among adolescents in Wilayah Persekutuan Putrajaya was higher than national prevalence, which was 44.7% (95% CI: 42.49-46.91) and 30.6% (95% CI: 28.90-32.43) respectively. The consumption of Vitamin C and Bee Product were significantly higher compared with the other types of vitamin / mineral and food supplement and this result was consistent with the national finding. Findings from the survey showed that parent's instruction was the main and significant reason for taking vitamin / mineral and food supplements among the adolescents. This indicates that the parents are strong influencer for food supplement and vitamin intake among the adolescents.

3.6.5 Conclusions

Overall findings from this survey showed that approximately six out of ten adolescents in Wilayah Persekutuan Putrajaya took vitamin / mineral and four out of ten adolescents took food supplements. Every five out of ten parents influenced their children's intake of vitamin/mineral while three out of ten parents influenced the children's intake of food supplements. Vitamin C and Bee product remain as the main type of vitamin and food supplement consumed by Malaysian adolescents respectively.

3.6.6 Recommendation

Advocating adolescents to eat balanced and healthy meals is the main priority in designing health policy. However, the Ministry of Health should also establish guidelines, regulations, and policy of food supplements and vitamin/mineral intake as its consumption has become common among Malaysian adolescents. There is a need for further scientific research involving adolescents with the purpose of assessing the beneficial effects and safety of these products in long-term use. The guidelines and regulations should be made clear to parents and guardians on appropriate use of food supplements.

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Table 3.6.1: Prevalence of adolescents taking vitamin/ mineral supplements by socio-demographic characteristic

Characteristic	Taking vitamin / mineral supplement					Not taking vitamin / mineral supplement				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	1336	8401	56.1	45.23	66.37	1137	6580	43.9	33.63	54.77
Locality of School										
Urban	1336	8401	56.1	45.23	66.37	1137	6580	43.9	33.63	54.77
Rural										
Sex										
Boys	747	4614	57.6	44.79	69.40	584	3402	42.4	30.60	55.21
Girls	589	3787	54.4	43.43	64.90	553	3179	45.6	35.10	56.57
Class										
Standard 4	307	1871	77.5	71.87	82.20	87	545	22.5	17.80	28.13
Standard 5	183	1645	74.7	66.84	81.18	61	558	25.3	18.82	33.16
Standard 6	122	1388	69.8	58.01	79.52	52	599	30.2	20.48	41.99
Remove class			0.0	0.00	0.00			0.0	0.00	0.00
Form 1	269	1065	54.7	50.71	58.60	220	882	45.3	41.40	49.29
Form 2	178	775	43.9	35.41	52.86	220	989	56.1	47.14	64.59
Form 3	117	705	41.2	31.35	51.88	163	1004	58.8	48.12	68.65
Form 4	96	463	31.5	21.21	44.06	201	1005	68.5	55.94	78.79
Form 5	64	490	32.9	24.88	42.15	133	999	67.1	57.85	75.12
Ethnicity										
Malay	1309	8239	56.1	45.28	66.41	1112	6442	43.9	33.59	54.72
Chinese	3	19	47.2	9.24	88.70	3	21	52.8	11.30	90.76
Indian	10	55	56.5	35.60	75.39	8	42	43.5	24.61	64.40
Bumiputera Sabah	6	36	54.1	22.52	82.72	6	30	45.9	17.28	77.48
Bumiputera Sarawak	5	35	52.5	20.10	82.95	6	31	47.5	17.05	79.90
Others	3	18	57.8	19.20	88.75	2	13	42.2	11.25	80.80
BMI-for age status (BAZ)										
Thinness (<-2sd)	98	616	66.2	53.51	77.00	56	314	33.8	23.00	46.49
Normal (≥-2sd - ≤+1sd)	843	5174	56.2	45.39	66.43	692	4034	43.8	33.57	54.61
Overweight (>+1sd - ≤+2sd)	204	1371	54.6	42.37	66.33	204	1140	45.4	33.67	57.63
Obese (>+2sd)	190	1226	52.9	40.91	64.53	185	1093	47.1	35.47	59.09
Height-for-age status (HAZ)										
Stunting (<-2sd)	82	516	57.5	42.48	71.28	63	381	42.5	28.72	57.52
Normal (≥-2sd)	1254	7885	56.0	45.19	66.27	1073	6195	44.0	33.73	54.81

Table 3.6.2: Types of vitamin/ mineral usually consumed among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Multivitamin					Vitamin C				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	171	1033	6.9	5.84	8.15	941	5915	39.5	30.92	48.87
Locality of School										
Urban	171	1033	6.9	5.84	8.15	941	5915	39.5	30.92	48.87
Rural										
Sex										
Boys	111	668	8.3	6.77	10.25	482	2959	37.0	28.24	46.61
Girls	60	365	5.2	3.82	7.17	459	2956	42.5	32.72	52.96
Class										
Standard 4	22	134	5.5	4.02	7.58	232	1426	59.0	55.40	62.54
Standard 5	16	138	6.3	3.87	9.96	133	1210	54.9	45.36	64.12
Standard 6	15	171	8.6	5.54	13.14	86	963	48.4	35.93	61.16
Remove class										
Form 1	36	143	7.3	5.92	9.02	202	798	41.0	36.27	45.92
Form 2	26	113	6.4	4.14	9.82	116	507	28.7	24.15	33.77
Form 3	19	112	6.6	3.55	11.79	81	490	28.7	19.75	39.61
Form 4	23	115	7.8	4.48	13.27	58	274	18.7	11.73	28.44
Form 5	14	108	7.4	4.70	11.38	33	248	16.9	12.15	23.08
Ethnicity										
Malay	169	1022	7.0	5.86	8.26	919	5776	39.4	30.80	48.69
Chinese						2	14	44.1	9.11	86.13
Indian	2	11	11.6	2.77	37.61	8	44	45.0	26.40	65.06
Bumiputera Sabah						5	31	47.2	17.64	78.88
Bumiputera Sarawak						4	31	47.0	16.61	79.85
Others						3	18	57.8	19.20	88.75
BMI-for age status (BAZ)										
Thinness (<-2sd)	15	97	10.4	6.91	15.38	69	446	48.0	38.28	57.84
Normal ($\geq -2sd - \leq +1sd$)	107	644	7.0	5.90	8.30	600	3675	40.0	31.31	49.33
Overweight (> +1sd - $\leq +2sd$)	23	145	5.8	3.97	8.28	142	953	38.0	26.58	50.82
Obese (> +2sd)	26	147	6.4	4.20	9.57	129	827	35.8	26.71	46.00
Height-for - age status (HAZ)										
Stunting (<-2sd)	13	82	9.1	5.34	15.12	56	351	39.2	27.85	51.82
Normal ($\geq -2sd$)	158	951	6.8	5.61	8.14	885	5564	39.6	30.85	49.03

Table 3.6.2: Types of vitamin/ mineral usually consumed among adolescents by socio-demographic characteristics

Characteristic	Iron					Others				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	113	734	4.9	3.42	7.00	124	782	5.2	4.36	6.25
Locality of School										
Urban	113	734	4.9	3.42	7.00	124	782	5.2	4.36	6.25
Rural										
Sex										
Boys	80	520	6.5	3.97	10.44	84	516	6.4	5.20	7.96
Girls	33	214	3.1	2.27	4.17	40	266	3.8	2.71	5.37
Class										
Standard 4	29	171	7.1	5.55	8.96	27	157	6.5	5.29	7.98
Standard 5	19	165	7.5	4.45	12.42	15	132	6.0	3.80	9.32
Standard 6	10	121	6.1	3.01	11.96	11	133	6.7	4.72	9.41
Remove class										
Form 1	12	47	2.4	1.61	3.62	20	78	4.0	2.75	5.83
Form 2	21	92	5.2	3.11	8.69	19	81	4.6	2.58	8.00
Form 3	5	29	1.7	0.65	4.39	13	80	4.7	3.05	7.17
Form 4	8	40	2.7	1.34	5.48	10	49	3.4	1.75	6.33
Form 5	9	68	4.7	3.11	6.92	9	72	4.9	2.55	9.15
Ethnicity										
Malay	112	730	5.0	3.45	7.12	122	774	5.3	4.38	6.35
Chinese						1	5	14.1	1.32	66.85
Indian										
Bumiputera Sabah	1	5	6.9	0.65	45.61					
Bumiputera Sarawak						1	4	5.5	0.54	38.29
Others										
BMI-for age status (BAZ)										
Thinness (<-2sd)	7	41	4.4	2.14	8.82	6	28	3.0	1.13	7.80
Normal ($\geq -2sd - \leq +1sd$)	59	352	3.8	2.88	5.06	86	552	6.0	4.70	7.64
Overweight (> +1sd - $\leq +2sd$)	26	194	7.7	3.52	16.07	17	99	3.9	2.60	5.96
Obese (> +2sd)	21	148	6.4	3.05	12.91	15	103	4.5	2.52	7.80
Height-for - age status (HAZ)										
Stunting (<-2sd)	6	39	4.4	1.72	10.62	8	47	5.3	2.70	9.99
Normal ($\geq -2sd$)	107	695	4.9	3.49	6.97	116	735	5.2	4.35	6.28

Table 3.6.3: Reasons for taking vitamin/ mineral among adolescents by socio-demographic characteristics

Characteristic	Doctor's Instruction					Parents' advice				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	222	1418	16.9	13.66	20.67	628	3876	46.1	42.03	50.30
Locality of School										
Urban	222	1418	16.9	13.66	20.67	628	3876	46.1	42.03	50.30
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	131	811	17.6	13.01	23.34	327	2005	43.5	38.03	49.06
Girls	91	606	16.0	12.99	19.58	301	1871	49.4	43.50	55.31
Class										
Standard 4	68	416	22.3	16.79	28.88	134	813	43.5	39.16	47.88
Standard 5	45	401	24.4	17.71	32.62	73	653	39.7	34.48	45.18
Standard 6	15	172	12.4	6.60	22.10	58	658	47.4	40.86	54.05
Remove class	-	-	-	-	-	-	-	-	-	-
Form 1	42	165	15.5	9.12	25.01	136	538	50.5	41.43	59.54
Form 2	27	116	14.9	10.08	21.58	91	400	51.6	42.51	60.63
Form 3	8	45	6.4	2.97	13.36	55	337	47.8	33.67	62.31
Form 4	10	48	10.3	5.41	18.65	51	244	52.6	44.83	60.34
Form 5	7	55	11.2	6.69	18.07	30	233	47.6	33.28	62.30
Ethnicity										
Malay	217	1386	16.8	13.60	20.63	615	3791	46.0	41.67	50.43
Chinese	1	7	37.9	3.69	90.67	1	7	37.9	3.69	90.66
Indian	3	20	36.4	10.09	74.46	5	25	45.3	19.24	74.18
Bumiputera Sabah	1	5	12.8	1.11	65.60	3	23	65.2	22.03	92.54
Bumiputera Sarawak	-	-	-	-	-	2	19	53.5	12.71	90.12
Others	-	-	-	-	-	2	11	60.5	8.70	96.11
BMI-for age status (BAZ)										
Thinness (<-2sd)	17	100	16.2	8.63	28.22	43	277	45.0	37.64	52.68
Normal ($\geq -2sd - \leq +1sd$)	131	824	15.9	11.98	20.87	409	2463	47.6	41.85	53.44
Overweight (> +1sd - $\leq +2sd$)	31	214	15.6	9.61	24.36	92	606	44.2	32.92	56.12
Obese (> +2sd)	43	280	22.9	13.36	36.26	84	529	43.2	34.30	52.47
Height-for - age status (HAZ)										
Stunting (<-2sd)	14	97	18.9	9.55	33.93	43	274	53.2	45.70	60.48
Normal ($\geq -2sd$)	208	1320	16.7	13.63	20.41	585	3602	45.7	41.33	50.09

Table 3.6.3: Reasons for taking vitamin/ mineral among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Self awareness					Influences by friends				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	386	2482	29.5	26.99	32.23	29	179	2.1	1.26	3.57
Locality of School										
Urban	386	2482	29.5	26.99	32.23	29	179	2.1	1.26	3.57
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	227	1411	30.6	26.25	35.27	21	141	3.1	1.81	5.11
Girls	159	1071	28.3	23.77	33.29	8	38	1.0	0.37	2.68
Class										
Standard 4	86	526	28.1	24.71	31.73	4	24	1.3	0.68	2.42
Standard 5	55	504	30.6	25.35	36.50	3	25	1.5	0.60	3.78
Standard 6	40	449	32.3	29.63	35.13	3	41	3.0	0.83	10.05
Remove class	-	-	-	-	-	-	-	-	-	-
Form 1	73	289	27.1	19.79	35.98	6	24	2.3	0.86	5.91
Form 2	45	194	25.0	18.94	32.30	7	30	3.8	1.76	8.13
Form 3	37	221	31.4	23.11	41.03	5	29	4.1	1.22	13.09
Form 4	28	137	29.5	20.97	39.79	1	5	1.2	0.13	9.60
Form 5	22	163	33.3	20.99	48.37	-	-	-	-	-
Ethnicity										
Malay	381	2459	29.9	27.16	32.69	28	173	2.1	1.26	3.46
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	1	4	7.2	0.59	50.44	-	-	-	-	-
Bumiputera Sabah	2	8	22.0	3.93	66.14	-	-	-	-	-
Bumiputera Sarawak	1	4	10.4	0.93	59.03	1	6	17.6	1.67	72.90
Others	1	7	39.5	3.89	91.30	-	-	-	-	-
BMI-for age status (BAZ)										
Thinness (<-2sd)	29	180	29.2	22.23	37.35	4	29	4.7	1.33	15.29
Normal (≥ - 2sd - ≤+ 1sd)	240	1504	29.1	25.01	33.51	15	87	1.7	0.77	3.62
Overweight (> +1sd - ≤+ 2sd)	65	443	32.3	25.04	40.61	3	14	1.0	0.30	3.55
Obese (> + 2sd)	52	354	28.9	21.84	37.14	6	35	2.8	1.43	5.50
Height-for - age status (HAZ)										
Stunting (<-2sd)	22	132	25.5	16.31	37.58	2	8	1.6	0.33	7.28
Normal (≥-2sd)	364	2350	29.8	26.90	32.88	27	170	2.2	1.30	3.58

Table 3.6.3: Reasons for taking vitamin/ mineral among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Others				
	Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	63	403	4.8	3.64	6.28
Locality of School					
Urban	63	403	4.8	3.64	6.28
Rural	-	-	-	-	-
Sex					
Boys	39	235	5.1	3.42	7.55
Girls	24	167	4.4	2.83	6.83
Class					
Standard 4	12	74	4.0	2.81	5.58
Standard 5	7	62	3.7	1.75	7.80
Standard 6	6	68	4.9	2.35	9.90
Remove class	-	-	-	-	-
Form 1	11	45	4.2	2.27	7.72
Form 2	8	36	4.6	2.19	9.32
Form 3	10	60	8.6	5.24	13.65
Form 4	4	19	4.2	1.68	9.95
Form 5	5	39	8.0	3.40	17.49
Ethnicity					
Malay	60	386	4.7	3.59	6.08
Chinese	1	5	24.2	2.01	83.28
Indian	1	6	11.1	2.69	36.09
Bumiputera Sabah	-	-	-	-	-
Bumiputera Sarawak	-	-	-	-	-
Others	1	6	18.4	1.76	74.05
BMI-for age status (BAZ)					
Thinness (<-2sd)	4	26	4.2	1.28	12.97
Normal ($\geq -2sd - \leq +1sd$)	44	272	5.3	3.66	7.50
Overweight ($> +1sd - \leq +2sd$)	11	81	5.9	3.92	8.90
Obese ($> +2sd$)	4	23	1.9	0.54	6.42
Height-for - age status (HAZ)					
Stunting (<-2sd)	1	4	0.9	0.09	7.89
Normal ($\geq -2sd$)	62	398	5.1	3.86	6.58

Table 3.6.4: Frequency of taking vitamin/ mineral among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Everyday					5 to 6 times per week				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	461	2836	19.0	15.35	23.19	187	1213	8.1	6.01	10.84
Locality of School										
Urban	461	2836	19.0	15.35	23.19	187	1213	8.1	6.01	10.84
Rural										
Sex										
Boys	243	1461	18.2	14.24	23.06	124	819	10.2	6.93	14.83
Girls	218	1376	19.8	15.72	24.62	63	394	5.7	4.03	7.91
Class										
Standard 4	122	751	31.1	25.85	36.84	44	261	10.8	7.02	16.27
Standard 5	66	596	27.1	19.62	36.05	32	273	12.4	7.78	19.21
Standard 6	29	322	16.2	13.19	19.75	19	232	11.7	6.79	19.34
Remove class										
Form 1	101	397	20.4	15.83	25.91	32	123	6.3	3.99	9.87
Form 2	56	243	13.8	10.32	18.17	26	113	6.4	4.26	9.56
Form 3	34	212	12.5	8.91	17.17	10	58	3.4	1.86	6.15
Form 4	33	159	10.9	7.28	15.90	12	58	3.9	2.01	7.57
Form 5	20	156	10.6	7.15	15.31	12	94	6.4	3.63	11.07
Ethnicity										
Malay	453	2788	19.0	15.40	23.23	182	1182	8.1	5.99	10.76
Chinese	1	5	14.1	1.32	66.85	1	7	22.1	2.24	77.77
Indian	3	15	15.0	3.18	48.70	4	24	24.4	5.47	64.38
Bumiputera Sabah	1	6	8.7	0.84	52.06					
Bumiputera Sarawak	2	16	24.1	4.91	66.16					
Others	1	7	22.8	2.10	80.23					
BMI-for age status (BAZ)										
Thinness (< -2sd)	32	209	22.5	15.28	31.80	11	68	7.3	4.03	12.78
Normal ($\geq -2sd - \leq +1sd$)	304	1848	20.1	16.31	24.55	114	705	7.7	5.49	10.64
Overweight ($> +1sd - \leq +2sd$)	67	425	16.9	12.08	23.18	29	229	9.1	5.47	14.88
Obese ($> +2sd$)	58	354	15.3	11.75	19.65	33	210	9.1	5.20	15.33
Height-for - age status (HAZ)										
Stunting (< -2sd)	27	172	19.1	11.70	29.74	15	92	10.2	5.81	17.39
Normal ($\geq -2sd$)	434	2665	19.0	15.25	23.31	172	1121	8.0	5.96	10.58

Table 3.6.4: Frequency of taking vitamin/ mineral among adolescents by socio-demographic characteristics

Characteristic	3 to 4 times per week					1 to 2 times per week				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	278	1781	11.9	9.38	15.00	397	2485	16.6	13.51	20.25
Locality of School										
Urban	278	1781	11.9	9.38	15.00	397	2485	16.6	13.51	20.25
Rural										
Sex										
Boys	158	975	12.2	9.65	15.24	215	1307	16.3	12.63	20.83
Girls	120	806	11.6	8.17	16.22	182	1178	16.9	13.49	21.07
Class										
Standard 4	54	327	13.5	10.51	17.26	84	516	21.3	18.62	24.35
Standard 5	38	351	15.9	9.54	25.42	45	406	18.4	13.86	24.08
Standard 6	33	371	18.7	15.61	22.15	40	454	22.8	14.91	33.30
Remove class										
Form 1	60	238	12.2	10.17	14.60	80	319	16.4	13.79	19.33
Form 2	35	155	8.8	6.51	11.76	56	244	13.8	9.87	19.06
Form 3	17	100	5.9	3.68	9.26	52	310	18.2	11.27	28.06
Form 4	25	123	8.4	5.76	12.06	24	113	7.7	4.42	13.12
Form 5	16	117	7.9	5.18	11.91	16	124	8.4	4.20	16.13
Ethnicity										
Malay	272	1751	11.9	9.38	15.09	390	2435	16.6	13.47	20.30
Chinese						1	7	22.1	2.24	77.77
Indian	2	11	10.8	3.26	30.45	1	6	6.3	1.44	23.56
Bumiputera Sabah	3	12	18.8	5.96	45.93	2	18	26.5	4.56	73.18
Bumiputera Sarawak						2	15	22.9	4.61	64.69
Others	1	7	22.2	2.04	79.68	1	4	12.8	2.19	48.84
BMI-for age status (BAZ)										
Thinness (<-2sd)	25	167	17.9	10.42	29.05	25	146	15.7	11.67	20.89
Normal (≥ - 2sd - ≤+ 1sd)	168	1029	11.2	8.87	14.06	253	1558	17.0	13.69	20.81
Overweight (> +1sd - ≤+ 2sd)	43	297	11.8	8.52	16.21	64	412	16.4	12.92	20.63
Obese (> + 2sd)	42	288	12.4	8.61	17.65	54	355	15.3	10.40	21.96
Height-for - age status (HAZ)										
Stunting (<-2sd)	18	111	12.4	6.88	21.30	21	138	15.3	10.26	22.31
Normal (≥-2sd)	260	1670	11.9	9.46	14.82	376	2347	16.7	13.49	20.49

Table 3.6.5: Prevalence of adolescents taking food supplements by socio-demographic characteristic

Characteristic	Taking food supplement					Not taking food supplement				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	968	6202	41.4	31.42	52.14	1505	8779	58.6	47.86	68.58
Locality of School										
Urban	968	6202	41.4	31.42	52.14	1505	8779	58.6	47.86	68.58
Rural										
Sex										
Boys	583	3627	45.2	32.73	58.39	748	4389	54.8	41.61	67.27
Girls	385	2576	37.0	26.88	48.36	757	4390	63.0	51.64	73.12
Class										
Standard 4	256	1557	64.5	59.30	69.29	138	859	35.5	30.71	40.70
Standard 5	157	1412	64.1	52.88	74.01	87	790	35.9	25.99	47.12
Standard 6	80	927	46.7	36.18	57.44	94	1060	53.3	42.56	63.82
Remove class										
Form 1	179	703	36.1	29.92	42.81	310	1244	63.9	57.19	70.08
Form 2	117	510	28.9	20.23	39.50	281	1254	71.1	60.50	79.77
Form 3	63	376	22.0	15.35	30.46	217	1333	78.0	69.54	84.65
Form 4	62	303	20.6	14.62	28.26	235	1165	79.4	71.74	85.38
Form 5	54	414	27.8	18.39	39.73	143	1075	72.2	60.27	81.61
Ethnicity										
Malay	946	6076	41.4	31.44	52.09	1475	8604	58.6	47.91	68.56
Chinese	3	19	47.2	9.24	88.70	3	21	52.8	11.30	90.76
Indian	9	47	48.5	26.01	71.66	9	50	51.5	28.34	73.99
Bumiputera Sabah	7	39	59.1	23.58	87.11	5	27	40.9	12.89	76.42
Bumiputera Sarawak	2	14	20.7	4.10	61.39	9	52	79.3	38.61	95.90
Others	1	7	22.8	2.10	80.23	4	24	77.2	19.77	97.90
BMI-for age status (BAZ)										
Thinness (<-2sd)	57	378	40.6	26.78	56.12	97	552	59.4	43.88	73.22
Normal ($\geq -2sd - \leq +1sd$)	604	3756	40.8	30.58	51.87	931	5452	59.2	48.13	69.42
Overweight ($> +1sd - \leq +2sd$)	149	1024	40.8	30.79	51.62	259	1487	59.2	48.38	69.21
Obese ($> +2sd$)	157	1030	44.4	32.73	56.77	218	1289	55.6	43.23	67.27
Height-for - age status (HAZ)										
Stunting (<-2sd)	60	391	43.6	27.99	60.57	85	506	56.4	39.43	72.01
Normal ($\geq -2sd$)	908	5811	41.3	31.47	51.82	1419	8268	58.7	48.18	68.53

Table 3.6.6: Types of food supplement usually consumed among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Spirulina					Fish oil				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	105	632	4.2	3.21	5.53	160	961	6.4	5.12	8.03
Locality of School										
Urban	105	632	4.2	3.21	5.53	160	961	6.4	5.12	8.03
Sex										
Boys	69	392	4.9	3.53	6.76	110	653	8.1	5.89	11.18
Girls	36	239	3.4	2.20	5.33	50	309	4.4	3.16	6.19
Class										
Standard 4	34	203	8.4	5.80	12.08	39	231	9.6	7.74	11.78
Standard 5	11	101	4.6	1.38	14.09	17	148	6.7	3.78	11.70
Standard 6	4	49	2.5	0.91	6.46	11	137	6.9	3.40	13.54
Remove class										
Form 1	22	88	4.5	2.81	7.24	36	140	7.2	5.07	10.11
Form 2	13	56	3.2	1.78	5.71	21	90	5.1	2.91	8.92
Form 3	7	41	2.4	1.05	5.39	14	90	5.3	1.84	14.11
Form 4	5	25	1.7	0.47	5.70	14	64	4.4	1.73	10.66
Form 5	9	69	4.6	1.44	13.85	8	60	4.0	2.81	5.77
Ethnicity										
Malay	102	613	4.2	3.22	5.40	156	938	6.4	5.10	7.98
Chinese										
Indian	2	13	13.3	2.90	43.96	3	16	16.2	5.33	39.92
Bumiputera Sabah										
Bumiputera Sarawak	1	6	8.8	0.89	50.84					
Others						1	7	22.8	2.10	80.23
BMI-for age status (BAZ)										
Thinness (< -2sd)	4	29	3.1	1.15	7.91	11	70	7.6	3.08	17.47
Normal ($\geq -2sd - \leq +1sd$)	60	357	3.9	2.80	5.36	94	554	6.0	4.57	7.89
Overweight ($> +1sd - \leq +2sd$)	17	100	4.0	2.23	7.09	24	144	5.7	3.29	9.86
Obese ($> +2sd$)	24	146	6.3	4.40	8.87	30	179	7.7	5.61	10.52
Height-for - age status (HAZ)										
Stunting (< -2sd)	7	43	4.8	1.79	12.01	9	58	6.4	3.11	12.87
Normal ($\geq -2sd$)	98	589	4.2	3.17	5.51	151	904	6.4	5.19	7.93

Table 3.6.6: Types of food supplement usually consumed among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Bee Product					Chicken essence				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	447	2975	19.872886	14.53	26.57	87	551	3.7	2.39	5.64
Locality of School										
Urban	447	2975	19.872886	14.53	26.57	87	551	3.7	2.39	5.64
Sex										
Boys	252	1660	20.722295	14.56	28.61	63	371	4.6	2.78	7.63
Girls	195	1315	18.894867	13.11	26.46	24	180	2.6	1.29	5.14
Class										
Standard 4	101	619	25.612297	21.83	29.80	29	173	7.2	4.75	10.70
Standard 5	86	779	35.351428	25.40	46.76	14	123	5.6	2.53	11.84
Standard 6	48	552	27.776978	15.99	43.72	8	87	4.4	1.51	11.98
Remove class										
Form 1	84	331	16.991518	12.32	22.97	14	55	2.8	1.75	4.46
Form 2	54	240	13.650532	8.20	21.86	10	44	2.5	1.05	5.89
Form 3	19	112	6.5424607	3.54	11.79	4	22	1.3	0.26	6.03
Form 4	29	143	9.7546171	7.69	12.29	5	25	1.7	0.69	4.15
Form 5	26	200	13.477462	7.66	22.64	3	23	1.5	0.62	3.71
Ethnicity										
Malay	440	2930	19.962214	14.57	26.73	82	527	3.6	2.28	5.61
Chinese	2	12	36.159502	6.61	81.93					
Indian	1	5	4.6338081	1.07	17.88	2	10	10.3	3.46	26.97
Bumiputera Sabah	4	29	43.774009	13.87	79.01	2	7	10.3	1.15	53.48
Bumiputera Sarawak						1	8	11.9	1.24	59.23
Others										
BMI-for age status (BAZ)										
Thinness (<-2sd)	28	182	19.599237	12.95	28.55	7	46	5.0	2.30	10.45
Normal (≥ - 2sd - ≤+ 1sd)	278	1784	19.402437	13.94	26.35	48	282	3.1	2.05	4.59
Overweight (> +1sd - ≤+ 2sd)	74	541	21.535123	14.03	31.58	14	94	3.7	1.69	8.06
Obese (> + 2sd)	67	468	20.166891	14.11	27.98	18	129	5.6	2.93	10.28
Height-for - age status (HAZ)										
Stunting (<-2sd)	29	190	21.216444	12.93	32.81	5	32	3.6	1.03	11.75
Normal (≥-2sd)	418	2785	19.794068	14.57	26.32	82	519	3.7	2.39	5.65

Table 3.6.6: Types of food supplement usually consumed among adolescents by socio-demographic characteristics

Characteristic	Others				
	Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	185	1185	7.9	5.93	10.49
Locality of School					
Urban	185	1185	7.9	5.93	10.49
Sex					
Boys	99	616	7.7	5.85	10.03
Girls	86	569	8.2	5.69	11.62
Class					
Standard 4	61	381	15.8	13.15	18.78
Standard 5	29	262	11.9	11.02	12.83
Standard 6	11	126	6.3	3.39	11.50
Remove class					
Form 1	25	99	5.1	3.84	6.65
Form 2	19	80	4.5	2.08	9.59
Form 3	19	111	6.5	3.61	11.41
Form 4	14	71	4.8	3.44	6.76
Form 5	7	56	3.8	1.69	8.27
Ethnicity					
Malay	183	1174	8.0	6.00	10.59
Chinese	1	7	22.1	2.24	77.77
Indian	1	4	4.1	0.42	30.02
Bumiputera Sabah					
Bumiputera Sarawak					
Others					
BMI-for age status (BAZ)					
Thinness (<-2sd)	9	62	6.7	3.05	13.92
Normal ($\geq -2sd - \leq +1sd$)	133	838	9.1	6.50	12.62
Overweight ($> +1sd - \leq +2sd$)	23	161	6.4	4.45	9.21
Obese ($> +2sd$)	20	124	5.3	3.22	8.75
Height-for - age status (HAZ)					
Stunting (<-2sd)	13	86	9.6	5.73	15.61
Normal ($\geq -2sd$)	172	1099	7.8	5.83	10.39

Table 3.6.7: Reasons for taking food supplements among adolescents by socio-demographic characteristics

Characteristic	Doctor's Instruction					Parents' advice				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	159	1015	12.1	9.33	15.51	370	2375	28.3	24.30	32.62
Locality of School										
Urban	159	1015	12.1	9.33	15.51	370	2375	28.3	24.30	32.62
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	102	625	13.6	9.75	18.54	214	1347	29.2	24.90	33.88
Girls	57	390	10.3	6.73	15.42	156	1029	27.2	21.84	33.22
Class										
Standard 4	58	348	18.6	13.43	25.16	99	601	32.1	27.67	36.89
Standard 5	29	268	16.3	8.88	27.94	67	591	35.9	28.82	43.72
Standard 6	12	149	10.8	5.86	18.91	28	331	23.8	22.33	25.41
Remove class										
Form 1	27	105	9.8	6.24	15.13	77	301	28.3	24.87	31.96
Form 2	20	84	10.8	6.78	16.77	41	183	23.7	15.18	34.90
Form 3	3	15	2.2	0.54	8.49	22	136	19.3	8.15	39.22
Form 4	10	47	10.1	4.08	22.92	17	85	10.1	4.08	22.92
Form 5	-	-	-	-	-	19	148	30.1	19.07	44.08
Ethnicity										
Malay	157	1002	12.2	9.41	15.58	362	2321	28.2	24.24	32.47
Chinese	-	-	-	-	-	1	7	37.9	3.69	90.66
Indian	2	13	23.5	5.43	62.07	4	20	35.8	14.72	64.36
Bumiputera Sabah	-	-	-	-	-	2	20	56.0	12.68	91.79
Bumiputera Sarawak	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	1	7	39.5	3.89	91.30
BMI-for age status (BAZ)										
Thinness (<-2sd)	9	53	8.6	3.52	19.67	24	169	27.4	17.22	40.56
Normal (≥ - 2sd - ≤+ 1sd)	97	623	12.0	8.46	16.83	246	1540	29.8	24.82	35.22
Overweight (> +1sd - ≤+ 2sd)	20	139	10.1	5.03	19.29	53	355	25.9	19.09	34.08
Obese (> + 2sd)	33	201	16.4	9.35	27.08	47	312	25.4	21.02	30.45
Height-for - age status (HAZ)										
Stunting (<-2sd)	12	84	16.2	7.93	30.41	25	173	33.5	22.71	46.41
Normal (≥-2sd)	147	931	11.8	9.15	15.11	345	2202	27.9	23.86	32.40

Table 3.6.7: Reasons for taking food supplements among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Self awareness					Influences by friends				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	263	1762	21.0	17.72	24.64	29	166	2.0	1.24	3.15
Locality of School										
Urban	263	1762	21.0	17.72	24.64	29	166	2.0	1.24	3.15
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	165	1065	23.1	19.59	27.00	21	126	2.7	1.65	4.45
Girls	98	696	18.4	13.44	24.64	8	41	1.1	0.51	2.27
Class										
Standard 4	70	430	23.0	19.42	26.98	6	38	2.0	0.82	4.94
Standard 5	40	366	22.2	17.41	27.98	4	32	1.9	0.62	5.75
Standard 6	33	377	27.1	23.00	31.70	1	14	1.0	0.15	6.16
Remove class										
Form 1	42	168	15.8	10.93	22.35	6	24	2.3	0.83	6.18
Form 2	27	116	14.9	10.25	21.25	6	25	3.3	1.42	7.29
Form 3	15	88	12.4	7.22	20.58	4	24	3.5	0.68	15.81
Form 4	20	96	20.8	13.38	30.88	2	9	2.0	0.55	6.68
Form 5	16	121	24.7	16.60	35.13	-	-	-	-	-
Ethnicity										
Malay	258	1738	21.1	17.62	25.05	28	162	2.0	1.23	3.11
Chinese	2	12	62.1	9.34	96.31	-	-	-	-	-
Indian	1	4	7.2	0.59	50.44	-	-	-	-	-
Bumiputera Sabah	2	8	22.0	3.93	66.14	1	5	12.8	1.11	65.60
Bumiputera Sarawak	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
BMI-for age status (BAZ)										
Thinness (<-2sd)	17	108	17.6	10.09	28.84	1	4	0.6	0.07	5.61
Normal ($\geq -2sd - \leq +1sd$)	153	977	18.9	16.67	21.34	17	87	1.7	0.90	3.16
Overweight ($> +1sd - \leq +2sd$)	48	361	26.3	20.33	33.26	2	11	0.8	0.18	3.55
Obese ($> +2sd$)	45	316	25.7	17.28	36.48	8	50	4.1	1.67	9.75
Height-for - age status (HAZ)										
Stunting (<-2sd)	15	95	18.4	7.66	37.99	3	12	2.3	0.61	8.09
Normal ($\geq -2sd$)	248	1667	21.1	17.66	25.10	26	155	2.0	1.21	3.16

Table 3.6.7: Reasons for taking food supplements among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Others				
	Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
WP Putrajaya	40	254	3.0	2.29	3.99
Locality of School					
Urban	40	254	3.0	2.29	3.99
Rural	-	-	-	-	-
Sex					
Boys	25	149	3.2	2.24	4.61
Girls	15	105	2.8	1.69	4.56
Class					
Standard 4	11	66	3.5	2.14	5.79
Standard 5	6	54	3.3	2.33	4.61
Standard 6	3	28	2.0	1.06	3.84
Remove class					
Form 1	5	21	1.9	0.56	6.47
Form 2	5	21	2.8	1.06	7.06
Form 3	5	29	4.2	1.85	9.16
Form 4	2	10	2.2	0.53	8.99
Form 5	3	24	4.9	2.05	11.24
Ethnicity					
Malay	39	248	3.0	2.24	4.04
Chinese	-	-	-	-	-
Indian	1	6	11.1	2.69	36.09
Bumiputera Sabah	-	-	-	-	-
Bumiputera Sarawak	-	-	-	-	-
Others	-	-	-	-	-
BMI-for age status (BAZ)					
Thinness (<-2sd)	3	22	3.6	0.70	16.46
Normal ($\geq -2sd - \leq +1sd$)	24	141	2.7	1.71	4.31
Overweight (> +1sd - $\leq +2sd$)	8	61	4.5	2.69	7.30
Obese (> +2sd)	5	30	2.4	0.80	7.25
Height-for - age status (HAZ)					
Stunting (<-2sd)	2	10	1.9	0.44	8.19
Normal ($\geq -2sd$)	38	244	3.1	2.38	4.01

Table 3.6.8: Frequency of taking food supplements among adolescents by socio-demographic characteristics (Cont.)

Characteristic	Everyday					5 to 6 times per week				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	266	1659	11.1	7.94	15.26	148	981	6.6	4.96	8.61
Locality of School										
Urban	266	1659	11.1	7.94	15.26	148	981	6.6	4.96	8.61
Rural										
Sex										
Boys	150	904	11.3	7.91	15.83	101	668	8.3	5.99	11.51
Girls	116	755	10.9	7.25	15.96	47	312	4.5	3.00	6.66
Class										
Standard 4	82	507	21.0	15.39	27.93	40	241	10.0	7.81	12.70
Standard 5	48	429	19.5	11.00	32.09	25	227	10.3	6.99	14.93
Standard 6	14	141	7.1	4.96	10.09	13	169	8.5	4.73	14.78
Remove class										
Form 1	45	176	9.0	5.82	13.78	29	115	5.9	4.05	8.52
Form 2	29	126	7.1	4.48	11.11	14	63	3.6	2.40	5.24
Form 3	16	98	5.7	3.38	9.49	9	51	3.0	1.28	6.77
Form 4	21	101	6.9	3.39	13.36	8	37	2.5	1.02	6.12
Form 5	11	83	5.6	1.87	15.58	10	78	5.3	2.86	9.60
Ethnicity										
Malay	257	1609	11.0	7.87	15.07	148	981	6.7	5.05	8.79
Chinese	2	12	36.2	6.61	81.93					
Indian	5	29	29.5	12.20	55.71					
Bumiputera Sabah	2	9	13.7	2.62	48.39					
Bumiputera Sarawak										
Others										
BMI-for age status (BAZ)										
Thinness (<-2sd)	18	138	14.8	9.40	22.64	5	23	2.5	0.84	7.16
Normal ($\geq -2sd - \leq +1sd$)	173	1063	11.6	8.02	16.36	86	564	6.1	4.47	8.35
Overweight ($> +1sd - \leq +2sd$)	36	225	9.0	6.46	12.34	27	190	7.5	5.31	10.63
Obese ($> +2sd$)	39	233	10.1	6.00	16.39	30	204	8.8	5.73	13.34
Height-for - age status (HAZ)										
Stunting (<-2sd)	18	122	13.6	7.01	24.58	8	45	5.0	2.22	11.02
Normal ($\geq -2sd$)	248	1537	10.9	7.90	14.92	140	936	6.6	4.93	8.91

Table 3.6.8: Frequency of taking food supplements among adolescents by socio-demographic characteristics

Characteristic	3 to 4 times per week					1 to 2 times per week				
	Count	Estimated population	Prevalence (%)	95% CI		Count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP Putrajaya	209	1326	8.9	6.46	12.04	348	2285	15.3	11.98	19.25
Locality of School										
Urban	209	1326	8.9	6.46	12.04	348	2285	15.3	11.98	19.25
Rural										
Sex										
Boys	135	828	10.3	7.64	13.85	200	1276	15.9	11.70	21.30
Girls	74	498	7.2	4.02	12.42	148	1009	14.5	11.21	18.57
Class										
Standard 4	61	366	15.1	12.10	18.78	77	465	19.3	16.48	22.37
Standard 5	29	254	11.5	6.41	19.94	55	502	22.8	17.88	28.53
Standard 6	20	232	11.7	8.90	15.23	36	423	21.3	15.20	28.92
Remove class										
Form 1	36	142	7.3	5.23	10.06	65	257	13.2	11.48	15.22
Form 2	29	123	7.0	4.09	11.67	41	181	10.2	6.42	15.95
Form 3	11	64	3.7	1.85	7.43	28	170	9.9	6.70	14.48
Form 4	13	69	4.7	2.83	7.63	23	111	7.6	4.46	12.66
Form 5	10	76	5.2	4.03	6.57	23	176	11.9	6.93	19.71
Ethnicity										
Malay	203	1295	8.8	6.43	11.99	343	2247	15.3	12.05	19.26
Chinese						1	7	22.1	2.24	77.77
Indian	2	8	8.7	2.70	24.52	2	10	10.4	4.16	23.55
Bumiputera Sabah	2	8	11.9	3.15	36.03	1	14	21.6	2.38	75.66
Bumiputera Sarawak	1	8	11.9	1.24	59.23	1	6	8.8	0.89	50.84
Others	1	7	22.8	2.10	80.23					
BMI-for age status (BAZ)										
Thinness (<-2sd)	14	88	9.5	3.94	21.22	22	140	15.0	9.68	22.62
Normal ($\geq -2sd - \leq +1sd$)	129	773	8.4	6.03	11.59	218	1383	15.0	11.86	18.86
Overweight ($> +1sd - \leq +2sd$)	35	250	9.9	6.48	14.96	52	376	15.0	10.09	21.71
Obese ($> +2sd$)	31	215	9.3	6.15	13.83	55	372	16.1	10.18	24.45
Height-for - age status (HAZ)										
Stunting (<-2sd)	10	51	5.7	2.97	10.48	24	174	19.4	10.81	32.36
Normal ($\geq -2sd$)	199	1275	9.1	6.57	12.38	324	2111	15.0	11.81	18.88

3.7 Food and nutrition labeling Among Adolescents (Secondary 1 To Secondary 5) in WP Putrajaya

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3.7.1 Introduction

Recognizing the need for more effective regulation of the nutrition labels and claims on food packages, the Ministry of Health Malaysia (MOH) gazetted amendments to Food Regulations 1985 in 2003 (MOH, 1985). MOH has also gazetted and enforced Regulations on Nutrition Labelling and Claims. Regulations were introduced requiring manufacturers to describe the nutritional qualities of a food product factually and informatively.

Nutrition information on food labels to assist food choices and implementation of Front-of-Pack (FOP) labelling are listed as current nutrition programs and activities in the National Plan of Action for Nutrition of Malaysia III, 2016-2025. Food and nutrition labelling are designed to provide consumers on various information when choosing food. Food and nutrition labelling in this survey include food labelling, FOP labelling, nutrition information panel (NIP) and nutrition labelling. Food labelling includes any written, printed or graphic matter that is presented on the label, accompanies the food, or is displayed near the food, including that for the purpose of promoting its sale or disposal. NIP declares the nutrients as a table in one section of a food label. In addition, nutrition labelling describes the nutrient content of a food product and this may assist the consumers in making better food choices when planning their daily meals. Thus, food and nutrition labelling has been recognized as one of the strategies to encourage people to adopt healthy eating practices. . There is no national data in Malaysia on prevalence of food label reading among Malaysian children and teenagers. Therefore, this survey was conducted to determine the prevalence of reading and their understanding of food and nutritional labelling among adolescents in Malaysia.

3.7.2 Objective

3.7.2.1 General objective

To determine the prevalence of reading food and nutrition labeling among adolescents (Secondary 1 to Secondary 5).

3.7.2.2 Specific objective:

1. To determine the prevalence of reading food label when buying or receiving food/drink.
2. To determine the reason(s) for not reading food labels.

3. To determine the types of nutrition fact information (energy, carbohydrate/ sugar, fat, protein, sodium, vitamin, mineral and fiber content) that is read from the food label.
4. To determine the types of information (expiry date, nutritional claim, nutrition facts, halal logo, food ingredients, storage instruction) read from the food label.
5. To determine the understanding of nutrition labelling (nutrition facts and front of pack).
6. To determine the knowledge of the most and least amount of ingredients contained based on the food ingredients list.

3.7.3 Variable definitions

There were three classifications used in this study.

- a. Always: reads food labels every time when buying or receiving food/drinks
- b. Sometimes: occasionally or once in a while reads food labels when buying or receiving food/drink
- c. Never: does not read food labels at all.

Food label

- A food label includes any tag, brand, mark, pictorial or other descriptive matter, written, printed, stenciled, marked, painted, embossed or impressed on, or attached to or included in, belonging to, or accompanying any food. (Malaysia Food Regulations 1985).

Front of Pack (FOP) labels

- Simplified nutrition information on the front of the package, in varied forms.

Nutrition information panel/ Nutrition facts

- The nutrition information panel or NIP is a table found in one section of a food label declaring the amount of nutrients contained in the food.

Nutrition labelling

- A nutrition label is a listing of the level of nutrient(s) as displayed on the food label. It is meant to provide factual information about the nutritional content of the product.

3.7.4 Findings

3.7.4.1 Prevalence of practise reading food labels when buying or receiving food/drink among adolescents in WP Putrajaya

The results in **Table 3.7.1** showed 32.7% (95% CI: 28.36,37.44) of adolescents in WP Putrajaya reported as always reading food labels and only 14.6% (95% CI: 12.17 ,17.32) reported as never reading food labels when buying or receiving food. The prevalence of never reading food labels was significantly higher among boys [17.3% (95% CI: 15.33,19.57)] than girls [11.0% (95% CI: 7.98,15.10)].

3.7.4.2 Reasons for not reading food and nutrition labelling among adolescents in WP Putrajaya

Among those who never read food labels, the findings showed that the main reasons for not reading were that the food labels were not interesting [39.0% (95%CI: 28.61,50.39)], time constraint [18.8%CI: 12.29,27.67]] and do not understand food labels [16.3% (95%CI: 8.95,27.77)]. The results also revealed that 15.9% (95%CI: 12.27 ,20.38) of adolescents did not know the importance of food labels; 13.9% (95%CI: 7.59, 24.09) felt the size of the printing on food labels were too small and 13.0% (95%CI:8.59,19.18) claimed that they were already aware of the food label information. Food labels being not interesting were reported as the main reason for not reading them by adolescents from both sexes and all Forms (**Table 3.7.2**).

3.7.4.3 Types of nutrition fact information (energy, carbohydrate/ sugar, fat, protein, sodium, vitamin, mineral and fiber content) that read from the food labels.

Among those who read the nutrition fact information, the three most common types of nutritional information being read were fat content [46.9% (95%CI: 38.63,55.28)], total energy content [42.0% (95%CI: 37.25,46.95)] and carbohydrate content (including sugar) [42.1% (95%CI: 32.72 52.14)].

Energy content [45.4% (95%CI: 40.53,50.42)] was the nutrition fact information most read among boys, while fat content [55.1% (95%CI: 46.77,63.24)] was the highest among girls. Mineral and fiber contents were the lowest nutrients read by the adolescents [9.8% (95%CI: 7.71,12.33) and 10.1% (95%CI: 8.81,11.56)] (**Table 3.7.3a** and **Table 3.7.3b**)

3.7.4.4 Types of information (expiry date, nutrition claim, nutrition facts, halal logo, food ingredients and storage instruction) read from the food labels.

Based on types of information (expiry date, nutritional claim, nutrition facts, halal logo, food ingredients, storage instruction) read on the food label, most of the adolescents read expiry date [78.5% (95%CI: 70.32, 84.92)], followed by halal logo [60.1% (95%CI: 47.73,71.35), food ingredients [32.5% (95%CI: 22.83,43.85)], nutrition facts [25.8% (95%CI: 19.90,32.65), storage instruction [21.4% (95%CI: 15.49,28.91)] and nutritional claim [17.7% (95%CI: 13.89,22.33)] (**Table 3.7.4**).

3.7.4.5 Understanding of nutrition facts among adolescents in W.P Putrajaya

Overall, 68.7% (95%CI: 57.93,77.85)] and 63.2% (95%CI: 52.57,72.62) of the adolescents had given a correct response to the question assessing interpretation of the energy and sugar contents based on the nutrition facts given while 54.2% (95%CI: 41.87,66.13)] responded correctly for both questions on energy and sugar (**Table 3.7.5**).

3.7.4.6 Understanding of front of pack labelling among adolescents in WP Putrajaya

Overall, less than half of the adolescents [40.7% (95%CI: 31.9,50.0)] had given the correct response to questions assessing interpretation of the energy content based on the front of pack labelling given and [49.6% (95%CI:44.06,55.22)] to questions assessing interpretation of the percentage of energy content based on the front of pack labelling given. However, the results showed a low level of correct responses [27.1% (95%CI: 19.24,36.71)] to questions assessing interpretations of both the energy content and the percentage of energy content based on the front of pack labelling given (**Table 3.7.6**).

3.7.4.7 Understanding of the mostly and the least used ingredients based on the food ingredient list among adolescents in WP Putrajaya

Overall, slightly more than half of the adolescents [52.6% (95%CI: 46.70, 58.39)] had given a correct response to the question assessing interpretation of the mostly used ingredient in the food based on the list of ingredients given. Girls [59.8% (95%CI: 52.60,66.51)] reported a significantly higher prevalence of interpreting correctly as compared to the boys [46.4% (95%CI: 40.53, 52.45)]. Only 13.6% (95%CI: 9.27,19.48) of adolescents had given correct response to the question assessing interpretation of the least used ingredient in the food based on the list of ingredients given. The results showed a low level of correct responses [4.3% (95%CI: 2.65,7.03)] to questions assessing interpretations of both the mostly and the least used ingredients based on the ingredient list given (**Table 3.7.7**).

3.7.5 Discussion/Conclusion

This study provides useful information about the prevalence of reading food and nutrition labelling among adolescents in WP Putrajaya. Findings from this study shows the prevalence of not reading food label is low among the adolescent here. Continuous education regarding understanding the food and nutrition labelling, not limited to the expiry date only, but also the nutritional content and the benefits of front of pack labelling and nutrition information panel is necessary. Boys had a higher prevalence of not reading food and nutrition labelling. Thus, we need to be creative in educating and promotions to ensure the adolescents know how to interpret the overall information that is stated at the food and nutrition labelling before choosing packaged food and drinks. In this survey, majority of the adolescents still lack of knowledge to determine the highest and lowest ingredients content based on the food labels.

References

1. Institute for Public Health. National health and Morbidity Survey 2014. Malaysian Adult Nutrition Survey. Vol II.
2. Malaysia Food Regulations (1985). Ministry of Health Malaysia.
3. National Coordinating Committee on Food and Nutrition. 2010. Malaysian Dietary Guidelines. Ministry of Health.

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Table 3.7.1: Prevalence of reading food and nutritional labelling when buying or receiving food/drink among adolescents (Cont.)

Characteristic	Yes, always					Yes, sometimes				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	566	2741	32.7	28.36	37.44	854	4413	52.7	46.81	58.53
Locality of School										
Urban	566	2741	32.7	28.36	37.44	854	4413	52.7	46.81	58.53
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	331	1608	34.5	28.59	40.87	426	2247	48.2	41.08	55.35
Girls	235	1133	30.6	26.07	35.43	428	2166	58.4	51.34	65.12
Class										
Form 1	212	841	43.3	38.60	48.05	218	872	44.9	38.74	51.21
Form 2	133	583	33.0	25.97	40.94	192	856	48.5	40.85	56.30
Form 3	85	515	30.1	25.55	35.16	151	931	54.5	45.77	62.97
Form 4	82	397	27.0	19.94	35.56	181	902	61.5	50.53	71.37
Form 5	54	406	27.3	21.85	33.41	112	851	57.1	50.73	63.30
Ethnicity										
Malay	548	2655	32.4	28.07	37.05	841	4346	53.0	47.25	58.74
Chinese	1	5	17.8	0.88	84.04	3	21	82.2	15.96	99.12
Indian	14	66	91.5	34.68	99.55	1	6	8.5	0.45	65.32
Bumiputera Sabah	1	4	12.2	1.61	54.20	5	19	54.4	23.24	82.43
Bumiputera Sarawak	2	11	38.8	8.94	80.34	2	9	32.2	4.26	83.55
Others	-	-	-	-	-	2	12	67.1	5.40	98.64
BMI-for-age status (BAZ)										
Thinness (<-2sd)	33	160	34.6	21.67	50.32	46	244	52.9	36.45	68.71
Normal (≥-2sd - ≤+1sd)	347	1672	31.3	25.87	37.19	551	2871	53.7	45.93	61.24
Overweight (>+1sd - ≤+2sd)	109	535	39.4	30.38	49.24	127	641	47.2	40.47	54.05
Obese (>+2sd)	77	374	31.1	23.74	39.49	130	657	54.5	50.00	59.00
Height-for-age status (HAZ)										
Stunting (<-2sd)	25	120	23.6	16.94	31.93	60	335	65.8	56.84	73.77
Normal (≥-2sd)	541	2621	33.3	28.71	38.33	794	4078	51.9	45.50	58.22

Table 3.7.1: Prevalence of reading food and nutritional labelling when buying or receiving food/drink among adolescents

Characteristic	Never				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
WP PUTRAJAYA	240	1219	14.6	12.17	17.32
Locality of School					
Urban	240	1219	14.6	12.17	17.32
Rural	-	-	-	-	-
Sex					
Boys	155	809	17.3	15.33	19.57
Girls	85	410	11.0	7.98	15.10
Class					
Form 1	58	230	11.8	9.68	14.41
Form 2	73	325	18.4	14.65	22.93
Form 3	44	263	15.4	9.53	23.83
Form 4	34	168	11.5	7.77	16.63
Form 5	31	233	15.6	8.91	25.94
Ethnicity					
Malay	234	1193	14.6	12.19	17.31
Chinese	-	-	-	-	-
Indian	-	-	-	-	-
Bumiputera Sabah	3	12	33.4	13.49	61.76
Bumiputera Sarawak	2	8	29.0	6.33	71.17
Others	1	6	32.9	1.36	94.60
BMI-for-age status (BAZ)					
Thinness (<-2sd)	12	58	12.5	6.20	23.61
Normal (≥-2sd - ≤+1sd)	157	806	15.1	12.42	18.18
Overweight (>+1sd - ≤+2sd)	36	182	13.4	8.53	20.35
Obese (>+2sd)	35	173	14.4	9.68	20.87
Height-for-age status (HAZ)					
Stunting (<-2sd)	11	54	10.6	6.14	17.57
Normal (≥-2sd)	228	1160	14.8	12.18	17.78

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Table 3.7.2: Reasons for not reading food label among adolescents (Cont.)

Characteristic	Size of the print too small					Do not understand				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	35	169	13.9	7.59	24.09	41	198	16.3	8.95	27.77
Locality of School										
Urban	35	169	13.9	7.59	24.09	41	198	16.3	8.95	27.77
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	27	132	16.3	7.98	30.32	22	105	12.9	6.31	24.71
Girls	8	38	9.2	4.90	16.70	19	94	22.9	13.12	36.74
Class										
Form 1	11	45	19.4	11.46	30.96	11	44	19.0	9.68	33.88
Form 2	11	48	14.7	6.89	28.60	13	56	17.3	8.63	31.78
Form 3	8	48	18.3	7.25	39.24	8	48	18.5	6.12	44.05
Form 4	3	15	9.0	1.78	35.15	7	34	20.4	7.02	46.50
Form 5	2	14	5.9	1.10	25.87	2	15	6.6	1.48	25.13
Ethnicity										
Malay	34	166	13.9	7.49	24.33	40	195	16.3	8.90	28.10
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-	-	-
Bumiputera Sabah	-	-	-	-	-	1	3	27.7	1.70	89.47
Bumiputera Sarawak	1	4	45.5	2.28	96.75	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
BMI-for-age status (BAZ)										
Thinness (<-2sd)	2	8	14.2	2.15	55.50	-	-	-	-	-
Normal (≥-2sd - ≤+1sd)	23	115	14.3	7.99	24.35	27	133	16.4	7.49	32.36
Overweight (>+1sd - ≤+2sd)	5	23	12.7	3.92	34.02	5	25	13.6	4.37	35.21
Obese (>+2sd)	5	23	13.1	5.55	27.98	9	41	23.7	10.45	45.13
Height-for-age status (HAZ)										
Stunting (<-2sd)	1	5	8.5	0.56	60.60	2	9	17.3	3.54	54.22
Normal (≥-2sd)	34	165	14.2	8.00	23.98	38	184	15.9	8.13	28.71

Table 3.7.2: Reasons for not reading food label among adolescents (Cont.)

Characteristic	Not interesting					Do not know the importance of food label				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	88	475	39.0	28.61	50.39	41	194	15.9	12.27	20.38
Locality of School										
Urban	88	475	39.0	28.61	50.39	41	194	15.9	12.27	20.38
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	55	313	38.7	27.29	51.41	29	138	17.0	11.83	23.83
Girls	33	162	39.5	24.99	56.21	12	56	13.8	6.65	26.32
Class										
Form 1	13	53	22.8	10.58	42.55	15	58	25.1	11.83	45.57
Form 2	29	132	40.6	23.55	60.30	13	57	17.5	9.13	30.82
Form 3	15	89	33.7	22.02	47.88	6	36	13.8	6.28	27.83
Form 4	13	65	38.5	22.76	57.08	4	22	12.9	3.55	37.19
Form 5	18	137	58.8	30.89	81.98	3	21	9.2	3.02	24.74
Ethnicity										
Malay	86	465	38.9	28.56	50.41	40	188	15.8	12.31	19.99
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-	-	-
Bumiputera Sabah	1	5	38.6	2.75	93.32	-	-	-	-	-
Bumiputera Sarawak	-	-	-	-	-	-	-	-	-	-
Others	1	6	100.0	100.00	100.00	1	6	100.0	100.00	100.00
BMI-for-age status (BAZ)										
Thinness (<-2sd)	4	19	32.5	13.01	60.70	4	19	33.4	14.79	59.10
Normal (≥-2sd - ≤+1sd)	58	319	39.6	29.07	51.13	23	110	13.6	8.18	21.90
Overweight (>+1sd - ≤+2sd)	16	79	43.6	31.18	56.92	6	28	15.3	7.00	30.16
Obese (>+2sd)	10	58	33.3	14.30	60.00	8	37	21.3	7.13	48.78
Height-for-age status (HAZ)										
Stunting (<-2sd)	5	28	51.3	15.14	86.16	2	9	17.5	3.35	56.50
Normal (≥-2sd)	83	447	38.5	28.71	49.41	39	185	15.9	12.05	20.69

Table 3.7.2: Reasons for not reading food label among adolescents

Characteristic	Time constraint					Already aware of the food label information				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	41	229	18.8	12.29	27.67	29	158	13.0	8.59	19.18
Locality of School										
Urban	41	229	18.8	12.29	27.67	29	158	13.0	8.59	19.18
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	25	145	17.9	9.67	30.68	19	108	13.3	9.05	19.15
Girls	16	84	20.6	12.35	32.36	10	51	12.4	6.61	21.91
Class										
Form 1	8	34	14.6	5.28	34.51	5	19	8.4	2.92	22.03
Form 2	5	22	6.6	3.41	12.52	6	26	8.1	1.65	31.65
Form 3	12	73	27.8	11.51	53.18	8	48	18.4	10.71	29.79
Form 4	8	41	24.1	9.97	47.67	4	19	11.5	3.45	32.22
Form 5	8	60	26.0	14.32	42.37	6	45	19.3	8.83	37.06
Ethnicity										
Malay	38	216	18.1	12.09	26.10	28	154	12.9	8.59	19.01
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-	-	-
Bumiputera Sabah	-	-	-	-	-	1	3.99376	33.662704	2.2133	91.92
Bumiputera Sarawak	2	8	100.0	100.00	100.00	-	-	-	-	-
Others	1	6	100.0	100.00	100.00	-	-	-	-	-
BMI-for-age status (BAZ)										
Thinness (<-2sd)	2	9	16.1	3.91	47.37	1	6	10.2	0.72	63.87
Normal (≥-2sd - ≤+1sd)	28	161	20.0	11.93	31.52	22	118	14.6	8.97	23.00
Overweight (>+1sd - ≤+2sd)	8	44	24.1	10.87	45.37	2	12	6.7	1.44	26.12
Obese (>+2sd)	3	15	8.6	2.30	27.43	4	22	12.8	4.50	31.53
Height-for-age status (HAZ)										
Stunting (<-2sd)	-	-	-	-	-	2	9	15.9	3.32	51.09
Normal (≥-2sd)	41	229	19.7	12.76	29.28	27	150	12.9	8.86	18.43

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Table 3.7.3a: Prevalence of reading nutrition information (macronutrient) among those who read food label (Yes, always/ Yes, sometimes) (Cont)

Characteristic	Yes, always/ Yes, sometimes									
	Total energy					Carbohydrate				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP PUTRAJAYA	589	3006	42.0	37.25	46.95	580	3014	42.1	32.72	52.14
Locality of School										
Urban	589	3006	42.0	37.25	46.95	580	3014	42.1	32.72	52.14
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	342	1751	45.4	40.53	50.42	273	1432	37.2	28.76	46.41
Girls	247	1255	38.0	31.42	45.14	307	1581	47.9	36.48	59.59
Class										
Form 1	165	661	38.6	35.14	42.20	155	618	36.1	27.38	45.84
Form 2	146	652	45.3	37.06	53.82	128	577	40.1	30.10	50.94
Form 3	104	638	44.1	34.42	54.24	87	537	37.1	24.70	51.55
Form 4	101	501	38.6	29.95	48.04	115	563	43.4	36.33	50.69
Form 5	73	554	44.1	37.57	50.77	95	718	57.2	41.78	71.25
Ethnicity										
Malay	569	2910	41.6	36.72	46.57	564	2934	41.9	32.50	51.93
Chinese	2	12	47.2	16.97	79.69	2	14	52.8	20.31	83.03
Indian	11	51	71.1	42.93	88.91	8	38	52.0	28.57	74.58
Bumiputera Sabah	4	16	69.4	21.80	94.85	2	8	35.2	2.79	91.15
Bumiputera Sarawak	1	5	24.9	1.74	86.13	2	9	45.4	6.11	91.39
Others	2	12	100.0	100.00	100.00	2	12	100.0	100.00	100.00
BMI-for-age status (BAZ)										
Thinness (<-2sd)	-	-	-	-	-	-	-	-	-	-
Normal (≥-2sd - ≤+1sd)	369	1878	41.3	35.25	47.71	389	2047	45.1	34.50	56.08
Overweight (>+1sd - ≤+2sd)	92	475	40.4	32.85	48.34	101	508	43.2	32.57	54.48
Obese (>+2sd)	86	434	42.1	33.46	51.25	59	295	28.6	21.40	37.03
Height-for-age status (HAZ)										
Stunting (<-2sd)	38	190	41.8	33.01	51.15	34	189	41.5	29.09	55.16
Normal (≥-2sd)	551	2816	42.0	36.50	47.78	546	2825	42.2	32.84	52.09

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Table 3.7.3a: Prevalence of reading nutrition information (macronutrient) among those who read food label (Yes, always/ Yes, sometimes)

Characteristic	Yes, always/ Yes, sometimes									
	Fat					Protein				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
			Lower	Upper				Lower	Upper	
WP PUTRAJAYA	646	3353	46.9	38.63	55.28	331	1745	24.4	18.82	30.98
Locality of School										
Urban	646	3353	46.9	38.63	55.28	331	1745	24.4	18.82	30.98
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	291	1534	39.8	31.28	48.96	194	1037	26.9	19.61	35.68
Girls	355	1819	55.1	46.77	63.24	137	708	21.5	16.53	27.41
Class										
Form 1	176	713	41.6	34.06	49.62	96	385	22.5	15.84	30.87
Form 2	142	641	44.6	33.24	56.47	61	274	19.0	13.62	25.90
Form 3	101	629	43.5	33.49	54.09	68	423	29.3	19.29	41.75
Form 4	132	649	50.0	42.14	57.79	55	277	21.4	12.42	34.23
Form 5	95	720	57.3	50.31	64.05	51	385	30.7	24.76	37.30
Ethnicity										
Malay	627	3253	46.5	38.05	55.07	320	1691	24.2	18.49	30.89
Chinese	3	21	82.2	15.96	99.12	1	8	29.4	6.39	71.82
Indian	10	49	68.4	44.04	85.61	6	31	42.3	26.44	59.97
Bumiputera Sabah	3	13	54.3	7.90	94.27	3	12	50.3	10.18	90.06
Bumiputera Sarawak	2	9	48.1	6.72	92.29	-	-	-	-	-
Others	1	8	65.4	65.38	65.38	1	4	34.6	34.62	34.62
BMI-for-age status (BAZ)										
Thinness (<-2sd)	-	-	-	-	-	-	-	-	-	-
Normal (\geq -2sd - \leq +1sd)	404	2104	46.3	38.20	54.65	224	1182	26.0	19.73	33.50
Overweight (>+1sd - \leq +2sd)	116	602	51.1	37.56	64.57	51	267	22.7	17.89	28.32
Obese (>+2sd)	95	487	47.3	37.17	57.57	38	188	18.2	10.20	30.41
Height-for-age status (HAZ)										
Stunting (<-2sd)	29	164	36.0	21.50	53.64	20	104	22.9	14.56	34.09
Normal (\geq -2sd)	617	3189	47.6	38.63	56.73	311	1641	24.5	18.83	31.21

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Table 3.7.3b: Prevalence of reading nutrition information (micronutrient/fiber) among those who read food label (Yes, always/ Yes, sometimes) (Cont)

Characteristic	Yes, always/ Yes, sometimes									
	Sodium					Vitamin				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	157	841	11.8	8.45	16.12	269	1348	18.8	16.47	21.46
Locality of School										
Urban	157	841	11.8	8.45	16.12	269	1348	18.8	16.47	21.46
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	80	440	11.4	7.64	16.72	136	692	17.9	14.66	21.78
Girls	77	401	12.1	8.46	17.13	133	656	19.9	16.99	23.12
Class										
Form 1	32	129	7.5	5.15	10.94	91	364	21.2	17.79	25.15
Form 2	38	174	12.1	7.22	19.54	65	288	20.0	15.76	25.02
Form 3	25	155	10.8	5.41	20.22	41	252	17.4	11.92	24.72
Form 4	34	169	13.0	10.13	16.61	37	182	14.0	9.82	19.56
Form 5	28	213	16.9	11.68	23.90	35	262	20.9	17.06	25.30
Ethnicity										
Malay	152	814	11.6	8.33	15.99	257	1293	18.5	16.06	21.15
Chinese	1	8	29.4	6.39	71.82	-	-	-	-	-
Indian	3	14	20.0	4.73	55.60	5	24	33.9	22.46	47.52
Bumiputera Sabah	-	-	-	-	-	4	15	64.1	20.42	92.52
Bumiputera Sarawak	1	5	24.9	1.74	86.13	2	11	56.2	9.21	94.21
Others	-	-	-	-	-	1	4	34.6	34.62	34.62
BMI-for-age status (BAZ)										
Thinness (<-2sd)	10	58	14.3	8.39	23.24	21	107	26.5	12.43	47.79
Normal (≥-2sd - ≤+1sd)	114	607	13.4	9.35	18.73	190	932	20.5	17.81	23.52
Overweight (>+1sd - ≤+2sd)	25	134	11.4	6.77	18.62	33	176	15.0	10.90	20.27
Obese (>+2sd)	8	42	4.1	2.53	6.45	25	132	12.8	7.43	21.21
Height-for-age status (HAZ)										
Stunting (<-2sd)	11	51	11.3	5.46	21.93	17	85	18.8	9.24	34.43
Normal (≥-2sd)	146	789	11.8	8.17	16.71	252	1262	18.8	16.60	21.30

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Table 3.7.3b: Prevalence of reading nutrition information (micronutrient/fiber) among those who read food label (Yes, always/ Yes, sometimes)

Characteristic	Yes, always/ Yes, sometimes									
	Mineral					Fiber				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	132	700	9.8	7.71	12.33	137	723	10.1	8.81	11.56
Locality of School										
Urban	132	700	9.8	7.71	12.33	137	723	10.1	8.81	11.56
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	68	385	10.0	7.01	14.03	66	360	9.3	6.75	12.80
Girls	64	315	9.5	8.27	10.97	71	363	11.0	8.92	13.49
Class										
Form 1	23	94	5.5	3.40	8.67	26	105	6.1	3.85	9.61
Form 2	42	188	13.0	8.54	19.43	34	154	10.7	6.66	16.78
Form 3	19	118	8.1	4.98	12.98	23	141	9.7	6.63	14.03
Form 4	23	114	8.8	5.46	13.91	32	159	12.3	8.14	18.07
Form 5	25	186	14.8	10.53	20.46	22	164	13.0	10.00	16.81
Ethnicity										
Malay	127	677	9.7	7.55	12.31	134	708	10.1	8.96	11.41
Chinese	-	-	-	-	-	-	-	-	-	-
Indian	3	14	20.0	4.73	55.60	3	14	20.0	4.73	55.60
Bumiputera Sabah	2	8	33.4	11.39	66.24	-	-	-	-	-
Bumiputera Sarawak	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
BMI-for-age status (BAZ)										
Thinness (<-2sd)	8	46	11.5	3.98	28.89	5	29	7.2	2.24	20.92
Normal (≥-2sd - ≤+1sd)	99	511	11.3	8.60	14.58	95	497	10.9	8.90	13.40
Overweight (>+1sd - ≤+2sd)	18	106	9.0	5.32	14.93	28	150	12.8	8.00	19.72
Obese (>+2sd)	7	36	3.5	1.55	7.58	9	46	4.5	2.53	7.84
Height-for-age status (HAZ)										
Stunting (<-2sd)	10	52	11.4	6.38	19.52	10	51	11.3	5.50	21.78
Normal (≥-2sd)	122	648	9.7	7.50	12.38	127	671	10.0	8.77	11.43

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Table 3.7.4: Prevalence of reading food label among those who read food label (Yes, always/ Yes, sometimes) (Cont.)

Characteristic	Expiry date					Nutritional claim				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	1095	5616	78.5	70.315	84.918	246	1268	17.7	13.893	22.332
Locality of School										
Urban	1095	5616	78.5	70.315	84.918	246	1268	17.7	13.893	22.332
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	567	2947	76.5	67.27	83.683	139	710	18.4	15.715	21.493
Girls	528	2669	80.9	72.245	87.331	107	557	16.9	11.61	23.932
Class										
Form 1	311	1250	73.0	62.33	81.467	68	272	15.9	13.016	19.294
Form 2	244	1086	75.5	63.126	84.666	61	276	19.2	13.497	26.459
Form 3	189	1158	80.1	68.326	88.207	33	203	14.1	6.8492	26.711
Form 4	206	1026	79.0	67.044	87.451	48	243	18.7	14.141	24.257
Form 5	145	1096	87.2	80.764	91.756	36	274	21.8	13.563	33.057
Ethnicity										
Malay	1070	5493	78.5	70.214	84.91	238	1231	17.6	13.635	22.362
Chinese	4	26	100.0	100	100	1	6	23.3	1.1759	88.596
Indian	13	62	85.2	55.933	96.334	5	23	31.6	21.656	43.527
Bumiputera Sabah	5	20	83.3	20.864	98.951	1	4	15.1	1.4712	67.926
Bumiputera Sarawak	1	5	23.3	1.5934	85.027	1	5	24.9	1.7356	86.13
Others	2	12	100.0	100	100	-	-	-	-	-
BMI-for-age status (BAZ)										
Thinness (<-2sd)	62	322	79.8	63.757	89.861	14	80	19.8	12.763	29.38
Normal (\geq -2sd - \leq +1sd)	716	3688	81.2	72.604	87.561	153	780	17.2	13.326	21.867
Overweight ($>$ +1sd - \leq +2sd)	172	873	74.2	65.288	81.464	47	239	20.3	17.383	23.669
Obese ($>$ +2sd)	145	733	71.0	60.792	79.51	32	168	16.3	9.6755	26.164
Height-for-age status (HAZ)										
Stunting (<-2sd)	65	349	76.7	63.122	86.323	10	50	11.1	6.0012	19.493
Normal (\geq -2sd)	1030	5267	78.6	69.942	85.331	236	1217	18.2	13.984	23.28

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Table 3.7.4: Prevalence of reading food label among those who read food label (Yes, always/ Yes, sometimes) (Cont.)

Characteristic	Nutrition fact					Halal logo				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	349	1843	25.8	19.90	32.651	838	4301	60.1	47.726171	71.350377
Locality of School										
Urban	349	1843	25.8	19.90	32.651	838	4301	60.1	47.726171	71.350377
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	178	949	24.6	18.39	32.162	403	2106	54.6	42.472783	66.286995
Girls	171	894	27.1	20.67	34.642	435	2195	66.5	50.192681	79.677735
Class										
Form 1	89	350	20.4	14.97	27.232	229	923	53.9	43.510006	63.981891
Form 2	70	317	22.0	14.39	32.146	190	851	59.1	42.979621	73.548011
Form 3	60	372	25.7	16.11	38.418	127	787	54.4	37.062195	70.774983
Form 4	70	350	26.9	18.70	37.139	178	880	67.7	55.904418	77.642081
Form 5	60	455	36.2	26.13	47.667	114	860	68.4	57.41656	77.703326
Ethnicity										
Malay	337	1779	25.4	19.42	32.493	822	4230	60.4	47.894151	71.716454
Chinese	3	21	82.2	15.96	99.117	-	-	-	-	-
Indian	5	25	34.0	12.42	65.161	8	35	48.9	34.42178	63.478049
Bumiputera Sabah	1	4	15.1	1.47	67.926	5	19	81.7	30.177486	97.867484
Bumiputera Sarawak	1	4	20.5	1.37	82.789	1	5	24.9	1.7355744	86.129733
Others	2	12	100.0	100.00	100.00	2	12	100.0	100.00	100.00
BMI-for-age status (BAZ)										
Thinness (<-2sd)	19	111	27.5	16.10	42.875	44	232	57.4	39.319721	73.775321
Normal (≥-2sd - ≤+1sd)	225	1207	26.6	20.71	33.386	544	2799	61.6	49.219485	72.681946
Overweight (>+1sd - ≤+2sd)	66	338	28.8	17.68	43.171	138	699	59.5	47.466778	70.443761
Obese (>+2sd)	39	187	18.1	11.16	28.091	112	571	55.3	40.341363	69.388101
Height-for-age status (HAZ)										
Stunting (<-2sd)	21	122	26.8	18.81	36.595	45	250	55.1	42.757852	66.774824
Normal (≥-2sd)	328	1721	25.7	19.64	32.857	793	4051	60.5	47.365989	72.224655

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Table 3.7.4: Prevalence of reading food label among those who read food label (Yes, always/ Yes, sometimes)

Characteristic	Food ingredients					Storage instruction				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	439	2323	32.5	22.835	43.852	289	1534	21.4	15.486	28.911
Locality of School										
Urban	439	2323	32.5	22.835	43.852	289	1534	21.4	15.486	28.911
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	203	1091	28.3	19.387	39.302	145	780	20.2	13.328	29.518
Girls	236	1232	37.3	26.124	50.106	144	754	22.9	16.991	30
Class										
Form 1	112	451	26.3	18.91	35.326	72	293	17.1	12.193	23.429
Form 2	85	385	26.8	16.732	39.919	61	278	19.3	12.6	28.425
Form 3	71	441	30.5	16.319	49.738	57	354	24.5	14.018	39.222
Form 4	96	478	36.8	27.739	46.913	54	269	20.7	16.214	25.979
Form 5	75	567	45.2	30.05	61.217	45	341	27.1	18.835	37.365
Ethnicity										
Malay	422	2239	32.0	22.169	43.689	276	1470	21.0	14.777	28.938
Chinese	1	8	29.4	6.3938	71.82	1	8	29.4	6.3938	71.82
Indian	9	45	62.3	45.99	76.248	8	39	53.6	36.418	69.921
Bumiputera Sabah	5	20	83.3	20.864	98.951	3	12	50.3	10.184	90.056
Bumiputera Sarawak	1	4	20.5	1.3656	82.789	1	6	31.3	2.3999	89.445
Others	1	8	65.4	65.382	65.382	-	-	-	-	-
BMI-for-age status (BAZ)										
Thinness (<-2sd)	30	165	40.9	25.092	58.753	19	102	25.4	13.968	41.561
Normal (\geq -2sd - \leq +1sd)	287	1511	33.3	23.316	44.952	189	998	22.0	16.447	28.73
Overweight ($>$ +1sd - \leq +2sd)	72	379	32.2	22.822	43.334	49	259	22.1	13.043	34.804
Obese ($>$ +2sd)	50	268	26.0	15.839	39.543	32	174	16.9	10.186	26.613
Height-for-age status (HAZ)										
Stunting (<-2sd)	21	112	24.5	15.061	37.318	15	79	17.3	11.683	24.884
Normal (\geq -2sd)	418	2211	33.0	22.536	45.484	274	1455	21.7	15.363	29.793

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Table 3.7.5: Prevalence of understanding on the interpretation calorie and sugar content on the nutrition labelling among adolescents (Cont.)

Characteristic	Both Correct					Interpretation calorie correct				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	873	4544	54.2	41.87	66.13	1125	5759	68.7	57.93	77.85
Locality of School										
Urban	873	4544	54.2	41.87	66.13	1125	5759	68.7	57.93	77.85
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	478	2543	54.5	38.77	69.43	631	3279	70.3	57.47	80.59
Girls	395	2001	53.9	41.02	66.28	494	2479	66.8	53.29	77.99
Class										
Form 1	224	901	46.3	36.94	55.84	311	1243	63.8	55.51	71.37
Form 2	196	879	49.8	34.94	64.69	261	1166	66.1	51.38	78.25
Form 3	154	955	55.9	40.93	69.81	189	1167	68.3	56.90	77.87
Form 4	179	891	60.7	41.50	77.12	225	1122	76.4	62.76	86.21
Form 5	120	919	61.7	50.69	71.67	139	1061	71.3	58.81	81.15
Ethnicity										
Malay	853	4443	54.2	41.85	66.04	1099	5630	68.7	57.72	77.88
Chinese	3	21	82.2	15.96	99.12	3	21	82.2	15.96	99.12
Indian	10	45	63.0	29.81	87.21	13	61	85.0	55.35	96.28
Bumiputera Sabah	3	12	34.7	2.90	90.44	4	16	44.0	7.72	88.05
Bumiputera Sarawak	1	5	17.7	1.21	79.01	3	13	48.8	14.25	84.48
Others	3	17	100.0	100.00	100.00	3	17	100.0	100.00	100.00
BMI-for-age status (BAZ)										
Thinness (<-2sd)	49	250	54.1	39.25	68.23	60	302	65.4	51.62	76.96
Normal (≥-2sd - ≤+1sd)	562	2940	54.9	43.09	66.22	734	3777	70.6	60.42	79.02
Overweight (>+1sd - ≤+2sd)	136	704	51.9	33.86	69.40	170	870	64.1	46.37	78.65
Obese (>+2sd)	126	651	54.0	42.17	65.39	161	810	67.2	56.70	76.22
Height-for-age status (HAZ)										
Stunting (<-2sd)	47	253	49.7	31.07	68.34	61	327	64.3	43.65	80.70
Normal (≥-2sd)	826	4292	54.6	42.31	66.31	1064	5432	69.1	58.49	77.99

Table 3.7.5: Prevalence of understanding on the interpretation calorie and sugar content on the nutrition labelling among adolescents

Characteristic	Interpretation of sugar correct				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
WP PUTRAJAYA	1027	5291	63.2	52.57	72.62
Locality of School					
Urban	1027	5291	63.2	52.57	72.62
Rural	-	-	-	-	-
Sex					
Boys	568	2988	64.1	50.49	75.71
Girls	459	2303	62.0	51.03	71.92
Class					
Form 1	279	1122	57.6	50.40	64.50
Form 2	235	1052	59.6	45.75	72.06
Form 3	177	1094	64.0	48.34	77.16
Form 4	201	997	67.9	49.89	81.83
Form 5	135	1027	69.0	60.05	76.72
Ethnicity					
Malay	1003	5171	63.1	52.48	72.54
Chinese	3	21	82.2	15.96	99.12
Indian	12	56	78.0	57.92	90.13
Bumiputera Sabah	4	17	47.4	6.65	91.94
Bumiputera Sarawak	2	8	30.9	4.01	82.64
Others	3	17	100.0	100.00	100.00
BMI-for-age status (BAZ)					
Thinness (<-2sd)	64	324	70.2	58.59	79.62
Normal (≥-2sd - ≤+1sd)	650	3368	62.9	52.69	72.11
Overweight (>+1sd - ≤+2sd)	158	812	59.8	43.04	74.57
Obese (>+2sd)	155	787	65.3	52.38	76.34
Height-for-age status (HAZ)					
Stunting (<-2sd)	55	289	56.8	37.56	74.12
Normal (≥-2sd)	972	5002	63.6	53.27	72.84

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Table 3.7.6: Prevalence of understanding on correct interpretation of front of pack labelling for energy among adolescents (Cont.)

Characteristic	Both correct					Know only the energy content				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	424	2270	27.1	19.24	36.71	648	3405	40.7	31.94	50.00
Locality of School										
Urban	424	2270	27.1	19.24	36.71	648	3405	40.7	31.94	50.00
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	234	1271	27.3	18.72	37.86	360	1904	40.8	31.92	50.37
Girls	190	999	26.9	16.93	39.93	288	1501	40.4	28.32	53.85
Class										
Form 1	98	401	20.6	12.57	31.91	159	639	32.8	26.42	39.98
Form 2	87	397	22.5	15.44	31.56	139	632	35.8	26.06	46.97
Form 3	78	487	28.5	18.16	41.75	111	687	40.2	28.52	53.14
Form 4	89	438	29.8	23.89	36.51	141	700	47.7	38.94	56.57
Form 5	72	547	36.7	26.07	48.91	98	746	50.1	36.83	63.40
Ethnicity										
Malay	415	2219	27.1	19.06	36.90	636	3338	40.7	31.95	50.12
Chinese	1	8	29.4	6.39	71.82	2	14	52.8	20.31	83.03
Indian	5	27	37.1	14.63	66.95	5	27	37.1	14.63	66.95
Bumiputera Sabah	1	5	12.7	0.80	72.24	1	5	12.7	0.80	72.24
Bumiputera Sarawak	1	5	17.7	1.21	79.01	2	9	32.2	4.26	83.55
Others	1	8	43.8	8.75	86.41	2	13	76.8	41.64	93.88
BMI-for-age status (BAZ)										
Thinness (<-2sd)	27	141	30.6	24.23	37.71	44	221	47.8	35.82	60.13
Normal (≥-2sd - ≤+1sd)	258	1387	25.9	18.31	35.30	391	2077	38.8	29.97	48.44
Overweight (>+1sd - ≤+2sd)	72	383	28.2	15.36	46.00	108	566	41.7	27.18	57.72
Obese (>+2sd)	67	359	29.8	21.17	40.10	105	542	45.0	36.45	53.81
Height-for-age status (HAZ)										
Stunting (<-2sd)	22	129	25.4	14.07	41.59	38	207	40.8	29.88	52.70
Normal (≥-2sd)	402	2140	27.2	19.40	36.76	610	3198	40.7	31.66	50.34

Table 3.7.6: Prevalence of understanding on correct interpretation of front of pack labelling for energy among adolescents

Characteristic	Know only the percentage of contribution by serving of foods				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
WP PUTRAJAYA	813	4157	49.6	44.06	55.22
Locality of School					
Urban	813	4157	49.6	44.06	55.22
Rural	-	-	-	-	-
Sex					
Boys	463	2406	51.6	46.69	56.44
Girls	350	1752	47.2	38.51	56.03
Class					
Form 1	232	938	48.2	39.51	56.99
Form 2	197	870	49.3	43.06	55.63
Form 3	142	877	51.3	41.07	61.42
Form 4	136	671	45.7	36.93	54.79
Form 5	106	801	53.8	43.33	63.95
Ethnicity					
Malay	795	4066	49.6	43.86	55.34
Chinese	1	8	29.4	6.39	71.82
Indian	10	49	68.4	44.04	85.61
Bumiputera Sabah	3	12	34.2	14.15	62.01
Bumiputera Sarawak	2	11	39.9	5.67	88.01
Others	2	12	67.1	5.40	98.64
BMI-for-age status (BAZ)					
Thinness (<-2sd)	47	243	52.6	39.93	65.03
Normal (≥-2sd - ≤+1sd)	520	2669	49.9	44.95	54.79
Overweight (>+1sd - ≤+2sd)	130	661	48.7	35.72	61.83
Obese (>+2sd)	116	584	48.5	40.93	56.11
Height-for-age status (HAZ)					
Stunting (<-2sd)	45	246	48.3	30.08	66.95
Normal (≥-2sd)	767	3907	49.7	44.72	54.66

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Table 3.7.7: Prevalence on the understanding of food ingredients among adolescents (Cont.)

Characteristic	Both Correct					Know only the highest ingredient				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
WP PUTRAJAYA	65	311	4.3	2.65	7.03	730	3761	52.6	46.70	58.39
Locality of School										
Urban	65	311	4.3	2.65	7.03	730	3761	52.6	46.70	58.39
Rural	-	-	-	-	-	-	-	-	-	-
Sex										
Boys	33	155	4.0	2.36	6.79	341	1790	46.4	40.53	52.45
Girls	32	155	4.7	2.44	8.86	389	1971	59.8	52.60	66.51
Class										
Form 1	25	98	5.7	3.03	10.57	197	789	46.1	39.82	52.45
Form 2	12	53	3.7	1.69	7.92	163	730	50.7	39.12	62.28
Form 3	12	72	5.0	2.03	11.70	122	752	52.0	43.76	60.10
Form 4	12	58	4.5	1.51	12.44	145	707	54.4	45.35	63.23
Form 5	4	29	2.3	1.02	5.26	103	783	62.3	49.67	73.51
Ethnicity										
Malay	61	293	4.2	2.48	6.97	709	3661	52.3	46.17	58.34
Chinese	1	5	17.8	0.88	84.04	3	18	70.6	28.18	93.61
Indian	3	13	18.4	6.99	40.47	10	45	62.6	27.44	88.08
Bumiputera Sabah	-	-	-	-	-	4	16	66.4	22.61	93.04
Bumiputera Sarawak	-	-	-	-	-	2	10	51.9	7.71	93.28
Others	-	-	-	-	-	2	12	100.0	100.00	100.00
BMI-for-age status (BAZ)										
Thinness (<-2sd)	2	8	2.0	0.21	16.34	38	199	49.3	40.69	57.86
Normal (≥-2sd - ≤+1sd)	41	200	4.4	2.62	7.32	472	2458	54.1	46.74	61.33
Overweight (>+1sd - ≤+2sd)	14	68	5.8	2.81	11.58	116	582	49.5	42.28	56.68
Obese (>+2sd)	8	34	3.3	0.92	11.31	104	522	50.6	42.36	58.90
Height-for-age status (HAZ)										
Stunting (<-2sd)	5	26	5.6	2.09	14.28	43	232	50.9	33.70	67.94
Normal (≥-2sd)	60	285	4.3	2.63	6.82	687	3530	52.7	46.94	58.38

Table 3.7.7: Prevalence on the understanding of food ingredients among adolescents

Characteristic	Know only the lowest ingredient				
	Unweighted	Estimated	Prevalence	95% CI	
	Count	Population	(%)	Lower	Upper
WP PUTRAJAYA	201	972	13.6	9.27	19.48
Locality of School					
Urban	201	972	13.6	9.27	19.48
Rural	-	-	-	-	-
Sex					
Boys	131	631	16.4	10.30	25.02
Girls	70	341	10.3	5.58	18.32
Class					
Form 1	70	277	16.2	13.40	19.43
Form 2	50	220	15.3	9.20	24.25
Form 3	28	166	11.5	7.70	16.74
Form 4	34	166	12.8	6.44	23.86
Form 5	19	143	11.3	6.23	19.79
Ethnicity					
Malay	195	945	13.5	9.22	19.35
Chinese	1	5	17.8	0.88	84.04
Indian	4	17	24.2	12.27	42.18
Bumiputera Sabah	-	-	-	-	-
Bumiputera Sarawak	1	5	23.3	1.59	85.03
Others	-	-	-	-	-
BMI-for-age status (BAZ)					
Thinness (<-2sd)	15	80	19.9	15.04	25.76
Normal (≥-2sd - ≤+1sd)	132	642	14.1	9.81	19.96
Overweight (>+1sd - ≤+2sd)	29	137	11.6	7.33	17.96
Obese (>+2sd)	25	113	10.9	4.17	25.63
Height-for-age status (HAZ)					
Stunting (<-2sd)	17	87	19.2	6.82	43.63
Normal (≥-2sd)	184	884	13.2	8.96	19.03

APPENDICES**Appendix 1: Members of Steering Committee NHMS 2015-2018**

1. Director General of Health
2. Deputy Director General of Health (Public Health)
3. Deputy Director General of Health (Medical)
4. Deputy Director General of Health (Research & Tech Support)
5. Director, Oral Health Division
6. Director, Pharmaceutical Services Division
7. Director, Food Safety and Quality Programmed Division
8. Director, Medical Development Division
9. Director, Planning Division
10. Director, Health Education Division
11. Director, Disease Control Division
12. Director, Family Health Development Division
13. Director, Nutrition Division
14. Representative of State Directors
15. Director, Institute for Public Health
16. Dean Faculty of Medicine, University of Malaya
17. Dean Faculty of Medicine, National University of Malaysia
18. Principle Investigator, NHMS

Appendix 2: Term of Reference for NHMS 2015-2018 Steering Committee

1. To approve the objectives and scopes of NHMS 2015-2018.
2. To facilitate inter and intra sectorial collaboration.
3. To monitor the implementation of the NHMS 2015-2018.
4. To facilitate the utilisation of the NHMS 2015-2018 findings.

Appendix 3: List of members of Central Coordinating Committee, NHMS 2017

1. Dr Hj Tahir bin Aris, Director of Institute for Public Health
2. Dr Muhammad Fadhli bin Mohd Yusoff, Coordinator of NHMS 2015-2018
3. Dr. S Maria binti Awaluddin, Principal Investigator of Adolescent Health Survey
4. Pn. Ruhaya binti Salleh, Principal Investigator of Adolescent Nutrition Survey
5. En. Mohamad Aznuddin bin Abd Razak, Principal Investigator of Healthy Mind Screening using DASS
6. Dr Mohd Azahadi bin Omar, Head Data Processing and Data Management
7. Dr Noor Ani binti Ahmad, Central Field Supervisor of Perlis & Kedah
8. Dr. Nor Asiah binti Mohamad, Central Field Supervisor of Johor, Melaka & Negeri Sembilan
9. Dr. Rajini a/p Sooryanarayana, Data Processing & Quality
10. Pn. Tee Guat Hiong, Central Field Supervisor of Sarawak
11. Dr. Nur Liana binti Ab. Majid, Central Field Supervisor of WP Kuala Lumpur, WP Putrajaya & Selangor
12. Cik Hasimah binti Ismail, Central Field Supervisor of Pahang, Kelantan & Terengganu
13. Pn. Norzawati binti Yeop, Central Field Supervisor of Perak & Kedah
14. Pn. Norazizah binti Ibrahim Wong, Data Processing & Quality
15. En. Mohd Hazrin bin Hasim @ Hashim, Central Field Supervisor of WP Labuan & Sabah
16. Pn. Lalitha a/p Palaniveloo, Person in charge for Dietary Intake
17. Pn. Siti Nor'Ain binti Hashim, Head of ICT Support
18. En. Lim Kuang Kuay, Logistic Support
19. Pn. Hamizatul Akmal binti Abd. Hamid, Project Manager
20. Pn Wan Shakira binti Rodzlan Hasani, Project Manager
21. Pn. Cheong Siew Man, Person in-charge for Habitual Food Intake
22. Pn. Nazirah Bt Alias, Data Processing & Quality
23. Dr. Fazila Haryati Ahmad, Data Processing & Quality

Appendix 4: Terms of Reference for NHMS 2017 Central Coordinating Team

No	Team	Duties	Officers
1	Project Management and Finance	<p>Work closely with recruitment group for employment of RA</p> <p>Prepare Questionnaires manual, Data collection manual</p> <p>Meeting with Liason Officers</p> <p>Planning for data collection training</p> <p>Prepare security cards/name tags for research team</p> <p>Arrangement for advanced payment for team managers, nurses and drivers</p> <p>Process claims of MOH staff</p> <p>Prepare tickets for travelling</p> <p>Monitor the expenditure/budget</p>	<p>Dr. Muhammad Fadhli bin Mohd Yusoff</p> <p>Dr. S. Maria binti Awaluddin Pn. Ruhaya binti Salleh</p> <p>Pn. Hamizatul Akmal binti Abd Hamid Pn. Wan Shakira binti Rodzlan Hasani</p> <p>Cik Nur Hazwani binti Mohd Hasri</p>
2	Survey Research Centre	<p>Calculate the sample size</p> <p>Determine the sample distribution by state</p>	<p>Dr. Muhammad Fadhli bin Mohd Yusoff</p> <p>Pn. Norazizah binti Ibrahim Wong</p> <p>Pn. Wan Shakira binti Rodzlan Hasani</p>
3	ICT Unit	<p>Maintenance of the scanning machine</p> <p>Daily back up for databases</p>	<p>Pn. Siti Nor'ain Binti Hashim</p> <p>En. Sulaiman Bin Harun</p> <p>En. Yusmirol Bin Yusop</p> <p>En. Andy Bin Mustaming</p>
4	Central Field Supervisors	<p><u>Before Data Collection</u></p> <p>Central Field Supervisors are expected to prepare for the initiation of data collection. The preparation tasks include:</p>	<p>Dr Nor Asiah Binti Muhamad</p> <p>Dr Nur Liana Binti Ab Majid</p> <p>Pn. Norzawati Binti Yeop</p> <p>Dr. Noor Ani Binti Ahmad</p>

		<p>Conduct meeting with State Education Office, School Principals, Teacher in-charged for the selected schools.</p> <p>To ensure adequate logistic support for the data collection and liaise with the District Education Office, District Health Office and other relevant departments to ensure that:</p> <ul style="list-style-type: none"> • Human resources are available: Field Supervisors, Team leaders, Research Assistants and drivers. • Manage transport: Vehicles • Manage survey instruments and relevant form • Manage lodging for data collectors <p><u>During Data Collection</u></p> <p>Gather feedback from the field on the data collection status and problems related to logistics.</p> <p>Visit the field to help data collectors solve the problem if necessary.</p> <p>To ensure all data collection monitoring forms have been received on time.</p> <p>To ensure bundle from field received by the Operation Centre by hand and bypost(Sabah, Sarawak, WP Labuan)</p> <p>Updating the monitoring board for state achievement and attending CCT meeting.</p>	<p>Pn. Hasimah Binti Ismail</p> <p>Pn. Helen Tee Guat Hiong</p> <p>En. Mohd Hazrin Bin Hasim @ Hashim</p>
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5	Data Processing and management	<p>Setting up data processing facility Development of directory of variables database</p> <p>Development of QC manual for data processing Specify data structure for data processing and data output requirement</p> <p>Responsible for data entry and data Cleaning</p> <p>Monitoring and evaluation of QC performance for data processing</p>	<p>Dr. Mohd Azahadi bin Omar</p> <p>Dr. Rajini a/p sooryanarayana</p> <p>Dr. Fazila Haryati Binti Ahmad</p> <p>Pn. Nazirah Binti Alias</p>
6	Operation Centre	<p>Arrange date and place of meeting</p> <p>Prepare and circulate briefing materials</p> <p>Prepare and circulate minutes of CCT meeting</p> <p>Prepare letters of appointment to state liaison officers, nurses, scouts and data collectors</p> <p>Prepare advertisement material for recruitment of data collectors, team leaders, and interviewers,</p> <p>Prepare letters of notifications for data collections</p> <p>Prepare manuals for scouts, field supervisors, data collectors and nurses</p> <p>Develop a system/format and monitor the distribution of materials/equipment for field work</p> <p>Arrange transport/drivers for distribution and collection of materials/equipment/SAQ</p>	<p>Pn. Hamizatul Akmal binti Abd Hamid</p> <p>En. Azli bin Baharudin</p> <p>Cik Nur Hazwani binti Mohd Hasri</p> <p>Pn. Siti Noafika Binti Anwar</p> <p>En. Muhammad Suhaimi Bin Mohamad Idrus</p> <p>Cik Shahibul Bariah binti Mat Ghani</p> <p>Pn. Nur Fadzilla binti Mohd Radzi</p> <p>En. Muhammad Zuhdi Bin Khiruddin</p> <p>Cik Nurbaiti Binti Asmawi</p>

Appendix 5: List of Research Team Members, NHMS 2017

1. Ms. Ainan Nasrina Ismail
2. Mr. Azli Baharudin
3. Ms. Chin Kim Ling
4. Ms. Chong Siew Man
5. Ms. Fatimah Othman
6. Assc. Prof. Dr. Hazizi Abu Saad
7. Ms. Jamilah Ahmad
8. Ms. Junaidah Raib
9. Mr. Lai Wai Kent
10. Ms. Lalitha a/p Palanivello
11. Ms. Ling Swee Nian
12. Dr. Mahenderan a/l Appukutty
13. Mr. Mohamad Hasnan Ahmad
14. Mr. Mohamad Ihsan Tahir
15. Dr. Mohd Azahadi Omar
16. Ms. Noor Hasnani Ismail
17. Ms. Noor Ul-Aziha Muhammad
18. Ms. Nor Azian Mohd Zaki
19. Ms. Nor Azizah Ibrahim Wong
20. Ms. Norlida Zulkafly
21. Ms. Nur Ili Mohamad Tarmizi
22. Ms. Nur Shahida Abdul Aziz
23. Prof. Dr. Poh Bee Koon
24. Ms. Rashidah Ambak
25. Ms. Rohana Ya'akob
26. Ms. Ruby Zainureen Zahedi
27. Ms. Ruhaya Salleh
28. Ms. Rusidah Selamat
29. Prof. Dr. Ruzita Abd Talib
30. Prof. Madya Datin Dr. Safiah Md Yusof
31. Ms. Sam Azura Ahmad
32. Mr. Shahrulnaz Norhazli Nazri
33. Dr. Subash Shander a/l Ganapathy
34. Mr. Suhaidi Sudin
35. Ms. Syafinaz Sallehuddin
36. Mr. Tan Beng Chin

Appendix 6: List of Data Collection Teams

WILAYAH PERSEKUTUAN PUTRAJAYA

Liaison Officer

Ms. Nor Azah binti Ahmad

Field Supervisor

Dr Noor Aliza binti Lodz

Dr Halizah binti Mat Ripin

Nutritionist

1. Ms. Azlinda binti Hamid
2. Ms. Nurul Zaiza binti Zainuddin
3. Ms. Nooraidaliana binti Abas
4. Ms. Siti Syazwani binti Abdullah

Drivers

1. Mr. Pragasa a/l Arulanantham
2. Mr. Wan Abdul Rashid bin Wan Zakaria

Research Assistants

1. Nur Nadiah binti Ab Majid
2. Sadeswaran a/l Paramesvaran
3. Thachayani a/p Ramayah
4. Nurul Awatif Hanani binti Hazarudin
5. Muhammad Hasif bin Abdul Ghalib
6. Wan Suhaili Wan Ab Rahman
7. Muhammad Rashidi bin Rosli
8. Danial Barr bin Abdul Aziz
9. Nurain Nadia binti Azmi
10. Lukmanulhakim bin Azid

Appendix 7: Nutrition Questionnaires



TINJAUAN PEMAKANAN REMAJA 2017
மலேசிய பள்ளி மாணவர் உணவு முறை ஆய்வறிக்கை 2017

BORANG SOAL SELIDIK
அளவறிக்கை

Pengenalan

Tinjauan ini dijalankan untuk mengetahui status pemakanan, amalan pemakanan, pengambilan makanan, tahap aktiviti Fizikal, dan penggunaan label makanan dan pemakanan anda. Pelajar lain yang terpilih seperti anda di seluruh negara juga menjawab borang soal selidik ini.

Maklumat yang anda berikan akan digunakan untuk membangunkan program-program kesihatan yang lebih baik untuk generasi muda seperti anda.

அறிமுகம்

பந்த ஆய்வு உங்கள் உணவு பழக்கமுறைமற்றும் சுகாதாரத்தின் அளவை கணக்கீட பயன்படும். நம் நாட்டில் உள்ள அனைத்து மாணவர்களும் பந்த ஆய்வறிக்கையில் பங்குபெறுகின்றனர்.

நீங்கள் கொடுக்கும் தகவல்கள் நம் நாட்டில் உள்ளவர்களுக்கின் உடல் நிலையைப் பேச மிகவும் உதவும்.

Panduan mengisi borang soal-selidik

ஆய்வறிக்கையை நிரப்ப வழிகாட்டிகள்

1. Jawapan yang anda berikan akan **DIRAHSIAKAN**. Jawab soalan-soalan berdasarkan apa yang tahu dan apa yang anda lakukan. Tidak ada jawapan yang betul atau salah.
நீங்கள் கொடுக்கும் தகவல்கள் சம்மந்தப்பட்டோர் மட்டுமே பயன்படுத்துவர். உங்களுக்கு தெரிந்த விடையடி அளிக்கவும். சரி அல்லது பிழை என்ற மட்டுமே விடையளிக்கக் கூடாது.
2. Baca soalan dengan teliti. Hitamkan jawapan anda pada kertas jawapan yang disediakan dengan pensil 2B yang dibekalkan.
கொடுக்கப்பட்டுள்ள கேள்விகளை தெளிவாக படித்தப்பின் 2B எழுதுக்கோலால் விடைத்தாளில் பதிலளிக்கவும்.
3. Cara menghitamkan jawapan:
பதிலளிக்கும் முறை:
Hitamkan jawapan anda seperti ini  bukan seperti ini  atau 
பவ்வாறு கருமயாக்கவும் பவ்வாறல்ல அல்லது
4. Hanya satu jawapan bagi setiap soalan **KECUALI** ada arahan lain yang dinyatakan.
கொடுக்கப்பட்டுள்ள கேள்விகளுக்கு குறிப்பிடப்பட்ட அளவு விடையளிக்க வேண்டும்.
5. Sekiranya anda tidak faham, sila angkat tangan untuk bertanyakan soalan semasa sesi menjawab soalan.
புரியாவிடில் உங்கள் கரத்தை உயர்த்தி அங்கிருக்கும் ஆசிரியரிடம் கேள்வி கேட்கலாம்.
6. Apabila anda selesai menjawab, tunggu arahan daripada Fasilitator yang menjaga kelas anda.
விடையளித்து முடித்தப்பின் ஆசிரியர் உங்கள் தால்களை வாங்கும் வரை பொருத்திருங்கள்.

Terima kasih di atas kesudian anda menjawab soal selidik ini.
பவ்வாய்வறிக்கையை விடையளித்தமைக்கு நன்றி

Tinjauan Persekitaran Keluarga

MODUL A : MAKLUMAT PERIBADI					
தொகுதி A : மாணவர் தகவல்					
Arahan : Isikan ID pelajar, tarikh lahir dan hitamkan jawapan pada kertas jawapan yang disediakan. கட்டளை: மாணவர் பெயர், பிறந்த திகதி, மற்றும் சரியான விடையை கொடுக்கப்பட்டுள்ள விடைத்தாளில் எழுதவும்.					
A1	ID Pelajar மாணவர் ஐடி	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Negeri மாநில	Strata நிலை	Kategori Sekolah பள்ளி பிரிவு	Kod Sekolah பள்ளி குறியீடு
		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A2	Tarikh lahir பிறந்த திகதி	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Hari நாள்	Bulan மாதம்	Tahun ஆண்டு	
A3	Jantina பால்	A. Lelaki -ன் B. Perempuan பெண்			
A4	Bangsa மனம்	A. Melayu மலாய் B. Cina சீனர் C. India மத்தியர் D. Bumiputra Sabah சபா பூர்வீகம் E. Bumiputra Sarawak சரவாக்பூர்வீகம் F. Lain-Lain மற்றது			
		Sekolah Rendah ஆரம்பப்பள்ளி		Sekolah Menengah மடைநிலைப்பள்ளி	
A5	Kelas ÀöÖ	A. Tahun 4 ஆண்டு 4 B. Tahun 5 ஆண்டு 5 C. Tahun 6 ஆண்டு 6		D. Kelas Peralihan குறைநீக்கல்வகுப்பு E. Tingkatan 1 படிவம் 1 F. Tingkatan 2 படிவம் 2 G. Tingkatan 3 படிவம் 3 H. Tingkatan 4 படிவம் 4 I. Tingkatan 5 படிவம் 5	
A6	Umur ÅÅÐ	A. 10 tahun 10 வயது B. 11 tahun 11 வயது C. 12 tahun 12 வயது		D. 13 tahun 13 வயது E. 14 tahun 14 வயது F. 15 tahun 15 வயது G. 16 tahun 16 வயது H. 17 tahun 17 வயது I. 18 tahun 18 வயது	

MODUL B : CORAK PEMAKANAN
தொகுதி B : உணவு பழக்கம்

Arahan : Pilih jawapan dan hitamkan pada kertas jawapan yang disediakan.

கட்டளை : சரியான விடையைத் தெர்வு செய்து கொடுக்கப்படுள்ள விடைத்தாளில் கருமையாக்குக .

- B1** Apakah sesi persekolahan anda?
 உங்கள்பள்ளி எச்சமயத்தில் நடைபெறும் ?
 A Sesi pagi sahaja / காஸலயில் மட்டும்
 B Sesi petang sahaja / மதியத்தில் மட்டும்
 C Sesi pagi sampai petang / காஸல முதல் மாஸல வஸர
- B2** Kebiasaannya, dalam seminggu berapa hari anda mengambil sarapan (dari pukul 6.00 pagi hingga 8.00 pagi)?
 ஒரு வாரத்தில் எத்தனை முறை காஸல சிற்றுண்டி உட்கொள்வீர்கள்? (காஸல மணி 6.00-
 விருந்துகாஸல மணி 8.00 வஸர)?
 A 1 hari / 1 நாள்
 B 2 hari / 2 நாள்
 C 3 hari / 3 நாள்
 D 4 hari / 4 நாள்
 E 5 hari / 5 நாள்
 F 6 hari / 6 நாள்
 G 7 hari / 7 நாள்
 H Tidak berkaitan / Tidak ambil sarapan
 தொடர்பு டல்லை /காஸல உணவு உட்கொள்வதில்லை
- B3** Kebiasaannya, dari mana anda dapat makanan itu?
 வழக்கமாக எங்கு காஸல உணவை உட்கொள்வீர்கள்?
 A Disediakan di rumah / வீடு
 B Beli di kantin sekolah / பள்ளி சிற்றுண்டிச்சாஸல
 C Beli di restoran atau warung / கஸல
 D Disediakan di asrama / பள்ளி விடுதி
 E Lain-lain / மற்றது
 F Tidak ambil sarapan / காஸல உணவு உட்கொள்வதில்லை
- B4** Sekiranya anda tidak mengambil sarapan, apakah sebabnya?
 ஏன் காஸல உணவை உட்கொள்வதில்லை?
 A Tiada makanan / உணவு டல்லை
 B Tiada selera / உண்ண விருப்பமில்லை
 C Tiada masa / நேரம்டல்லை
 D Berdiet/kawal berat badan / உணவு கட்டுப்பாட்டிலிருத்தல்
 E Tiada duit / பணம் பற்றாகுறை
 F Lain-lain / மற்றது
 G Tidak berkaitan/kerana saya mengambil sarapan setiap hari
 தொடர்பு டல்லை/ தினமும் காஸல சிற்றுண்டி உட்கொள்வேன்.

Tamil and English

- B5** Kebiasaannya, dalam seminggu berapa hari anda makan dan/atau minum pada waktu rehat sekolah?
வழக்கமாக ஒரு வாரத்தில் எத்தனை முறை பள்ளி ஓய்வு நேரத்தில் உணவு உட்கொள்வீர்கள்?
- A 0 hari / 0 நாள்
B 1 hari / 1 நாள்
C 2 hari / 2 நாள்
D 3 hari / 3 நாள்
E 4 hari / 4 நாள்
F 5 hari / 5 நாள்
- B6** Kebiasaannya, dari mana anda dapat makanan itu?
வழக்கமாக அவ்வுணவை எங்கிருந்து பெருவீர்கள்?
- A Bekal dari rumah / வீடு
B Beli di kantin sekolah / பள்ளி சிற்றுண்டிச்சாலை
C Beli di restoran atau warung / கடை
D Disediakan di asrama / பள்ளி விடுதி
E Lain-lain / மற்றது
F Tidak berkaitan/tidak mengambil makan dan/atau minum pada waktu rehat
தொடர்பு இல்லை/ ஓய்வு நேரத்தில் உணவு உட்கொள்வதில்லை
- B7** Kebiasaannya, dalam seminggu berapa hari anda makan tengah hari (11.00 pagi hingga 3.00 petang)?
வழக்கமாக ஒரு வாரத்தில் எத்தனை முறை மதிய உணவு உண்பீர்கள் (காலை மணி 11.00-
லிருந்துமாலை மணி 3.00 வரை)?
- A 1 hari / 1 நாள்
B 2 hari / 2 நாள்
C 3 hari / 3 நாள்
D 4 hari / 4 நாள்
E 5 hari / 5 நாள்
F 6 hari / 6 நாள்
G 7 hari / 7 நாள்
H Tidak mengambil makanan tengah hari / மதிய உணவு உட்கொள்வதில்லை
- B8** Kebiasaannya, dari mana anda dapat makanan itu?
வழக்கமாக அவ்வுணவை எங்கிருந்து பெருவீர்கள்?
- A Disediakan di rumah / வீடு
B Beli di kantin sekolah / பள்ளி சிற்றுண்டிச்சாலை
C Beli di restoran atau warung / கடை
D Disediakan di asrama / பள்ளி விடுதி
E Lain-lain / மற்றது
F Tidak berkaitan/tidak ambil makanan tengahari /
தொடர்பு இல்லை/ ஓய்வு நேரத்தில் உணவு உட்கொள்வதில்லை

- B9** Sekiranya anda tidak mengambil makan tengahari, apakah sebabnya?
ஏன் மதிய உணவை உட்கொள்வதில்லை?
- A Tiada makanan / உணவு இல்லை
B Tiada selera / உண்ண விருப்பமில்லை
C Tiada masa / நேரம் இல்லை
D Berdiet /kawal berat badan / உணவு கட்டுப்பாட்டிலிருந்தல்
E Tiada duit / பணம் பற்றாக்குறை
F Lain-lain / மற்றது
G Tidak berkaitan/ambil makan tengahari / தொடர்பு இல்லை/ மதிய உணவை உட்கொள்வேன்
- B10** Kebiasaannya, dalam seminggu berapa hari anda mengambil minum petang (3.00 petang hingga 6.00 petang)?
வழக்கமாக ஒரு வாரத்தில் எத்தனை முறை மாலை சிற்றுண்டி உட்கொள்வீர்கள் (மாலை மணி 3.00-லிருந்து மாலை மணி 6.00 வரை)?
- A 1 hari / 1 நாள்
B 2 hari / 2 நாள்
C 3 hari / 3 நாள்
D 4 hari / 4 நாள்
E 5 hari / 5 நாள்
F 6 hari / 6 நாள்
G 7 hari / 7 நாள்
H Tidak minum petang / மாலை சிற்றுண்டி உட்கொள்வதில்லை
- B11** Kebiasaannya, dari mana anda dapat makanan itu?
வழக்கமாக அவ்வணவை எங்கிருந்து பெருவீர்கள்?
- A Disediakan di rumah / வீடு
B Beli di kantin sekolah / பள்ளி சிற்றுண்டிச்சாலை
C Beli di restoran atau warung / கடை
D Disediakan di asrama / பள்ளி விடுதி
E Lain-lain / மற்றது
F Tidak ambil minum petang / மாலை சிற்றுண்டி உட்கொள்வதில்லை
- B12** Kebiasaannya, dalam seminggu berapa hari anda makan malam(6.00 petang hingga 10.00 malam)?
வழக்கமாக ஒரு வாரத்தில் எத்தனை முறை யரவு உணவு உட்கொள்வீர்கள் (மதிய மணி 6.00-லிருந்து யரவு மணி 10.00 வரை)?
- A 1 hari / 1 நாள்
B 2 hari / 2 நாள்
C 3 hari / 3 நாள்
D 4 hari / 4 நாள்
E 5 hari / 5 நாள்
F 6 hari / 6 நாள்
G 7 hari / 7 நாள்
H Tidak makan malam / யரவு உணவு உட்கொள்வதில்லை

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- B13** Kebiasaannya, dari mana anda dapat makanan itu?
எங்கிருந்து அவ்வணவை பெருவீர்கள்?
- A Disediakan di rumah / வீடு
B Beli di restoran atau warung / கடை
C Disediakan di asrama / பள்ளி விடுதி
D Lain-lain / மற்றது
E Tidak berkaitan/tidak ambil makan malam / தொடர்பு யல்லை/பரவு உணவு உண்பதில்லை
- B14** Sekiranya anda tidak mengambil makan malam, apakah sebabnya?
ஏதனால் பரவு உணவு உட்கொள்வதில்லை?
- A Tiada makanan / உணவு யல்லை
B Tiada selera / உண்ண விருப்பமில்லை
C Tiada masa / நேரம்யல்லை
D Berdiet / உணவு கட்டுப்பாடு
E Tiada duit / பணம் பற்றாக்குறை
F Lain-lain / மற்றது
G Tidak berkaitan/ambil makan malam / தொடர்பு யல்லை/பரவு உணவு உட்கொள்வேன்.
- B15** Dalam seminggu yang lepas, berapa kerap anda ambil makanan berat selepas makan malam? (Contoh: nasi lemak, roti canal, mee goreng, burger, ayam goreng, mee segera dan sebagainya. Ini tidak termasuk snek ringan contohnya 2 keping biskut dan/atau satu gelas susu)
கடந்த வாரத்தில், பரவில் ஏத்தனை முறை அதிகமான அளவில் உணவு உட்கொண்டீர்கள்?
(உதாரணமாக: நாசி லெமாக், ரொத்தி சாளாய், மீ பிரத்தல், பர்கர், பொரித்தக் கோழி, குரித மீமற்றும் சில. யதில் பால்மற்றும் பிஸ்கிட் போன்ற உணவு அடங்காது. (உதாரணத்திற்கு 2 துண்டு பிஸ்கிட் மற்றும்/ அல்லது ஒரு குவளைப்பால்)
- A 1 hari / 1 நாள்
B 2 hari / 2 நாள்
C 3 hari / 3 நாள்
D 4 hari / 4 நாள்
E 5 hari / 5 நாள்
F 6 hari / 6 நாள்
G 7 hari / 7 நாள்
H Tidak ambil makanan berat selepas makan malam /
பரவில் நாள் அதிகமான அளவில் உணவு உண்பதில்லை
- B16** Di manakah anda mengambil makanan berat tersebut?
எங்கு யல்வணவை உட்கொள்வீர்கள்?
- A Rumah / வீடு
B Restoran atau warung / கடை
C Asrama / பள்ளி விடுதி
D Lain-lain / மற்றது
E Tidak berkaitan/tidak ambil makanan berat /
தொடர்பு யல்லை/பரவில் நாள் அதிகமான அளவில் உணவு உண்பதில்லை

- B17** Kebiasaannya, dalam seminggu berapa hari anda makan makanan segera yang dibeli dari restoran makanan segera seperti burger, pizza, ayam goreng, kentang goreng, nugget dan sebagainya?
வழக்கமாக ஒரு வாரத்தில் எத்தனை முறை துரித உணவு உட்கொள்வீர்கள். உதாரணத்திற்கு பர்கர், பீசா, பொரித்தச் கோழி, பிராக் பிராஸ், நகெட் மற்றும் சில.
- A. 1 hari / 1 நாள்
B. 2 hari / 2 நாள்
C. 3 hari / 3 நாள்
D. 4 hari / 4 நாள்
E. 5 hari / 5 நாள்
F. 6 hari / 6 நாள்
G. 7 hari / 7 நாள்
H. Tidak ambil makanan segera / நான் துரித உணவு உட்கொள்வதில்லை.
- B18** Berapa kerap anda membawa bekal makanan ke sekolah?
பொதுவாக எத்தனை முறை பள்ளிக்கு வீட்டிலிருந்து உணவு எடுத்துச்செல்வீர்கள்?
- A. Setiap hari / தினமும்
B. Kadang-kadang / சில நேரத்தில்
C. Tidak / பள்ளிக்கு நீர் எடுத்துச் செல்லமாட்டேன்
- B19** Apakah bekal makanan yang biasa dibawa ke sekolah? (Boleh pilih SATU atau DUA jawapan sahaja)
எந்த உணவை வழக்கமாக பள்ளிக்கு எடுத்துச்செல்வீர்கள்? (ஒன்று அல்லதுபரண்டு உணவை தேர்வு செய்யலாம்)
- A. Nasi lemak/nasi goreng /nasi berlauk / நாசி லெமாக்/நாசி கோரேங்/நாசி பெர்லாவுக்
B. Mee / Bihun / Kueh Teow / மீ / மீவுன் / குவே தியாவ்
C. Roti / Ban / Sandwic / ரொத்தி / பன் / சான்விச்
D. Nugget / Sosej / Burger / நகெட் / சொசேஜ் / பர்கர்
E. Biskut / பிஸ்கிட்
F. Buah-buahan / பழம்
G. Lain-lain / மற்றது
H. Tidak bawa bekal / பள்ளிக்கு உணவு எடுத்துச் செல்லமாட்டேன்
- B20** Berapa kerap anda membawa bekal minuman ke sekolah?
பொதுவாக எத்தனை முறை பள்ளிக்கு நீர் எடுத்துச்செல்வீர்கள்?
- A. Setiap hari / தினமும்
B. Kadang-kadang / சில நேரத்தில்
C. Tidak / பள்ளிக்கு நீர் எடுத்துச் செல்லமாட்டேன்

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- B21** Apakah bekalan minuman yang biasa dibawa ke sekolah? (Boleh pilih **SATU** atau **DUA** jawapan sahaja)
வழக்கமாக எவ்வகை நீரை பள்ளிக்கு எடுத்துச் செல்வீர்கள்? (ஒன்று அல்லது டிரண்டு விடையை மட்டும் தெர்வு செய்ய்க)
- A Air kosong / தண்ணீர்
- B Air berperisa (air kotak/air sirap/ teh / kopi/ milo)
சுவைபானம்(சீராப், தேநீர், மீலோ)
- C Air berkarbonat / கார்போனெட் பானம்
- D Susu / minuman berkultur (air yogurt) / பால்/ மோர்
- E Lain-lain / மற்றது
- F Tidak bawa bekal / பள்ளிக்கு நீர் எடுத்துச் செல்லமாட்டேன்
- B22** Kebiasaannya, bagaimana wang saku/duit poket anda banyak dibelanjakan?
வழக்கமாக பணத்தை எதற்காக செழவு செய்வீர்கள்?
- A Membeli makanan dan/atau minuman / உணவு
- B Membeli alat tulis / எழுத பயன்படுத்தும் பொருட்கள்
- C Simpanan / சேமிப்பு
- D Lain-lain / மற்றது
- E Tidak bawa wang saku/duit poket / பள்ளிக்கு பணம் எடுத்துச் செல்லமாட்டேன்
- B23** Dalam seminggu berapa kali anda makan di luar? Tidak termasuk makan di sekolah dan di asrama.
வாரத்தில் எத்தனை முறை வெளியே உணவு உட்கொள்வீர்கள்? பள்ளி மற்றும் பள்ளி விடுதியில் உண்பது டிதில் உட்படவில்லை.
- A 1 kali / 1 முறை
- B 2 kali / 2 முறை
- C 3 kali / 3 முறை
- D 4 kali / 4 முறை
- E 5 kali / 5 முறை
- F 6 kali / 6 முறை
- G 7 kali atau lebih / 7 முறைக்கு மேல்
- H Tidak pernah / வெளியே உணவு உட்கொள்வதில்லை
- B24** Apakah jenis makanan ringan yang selalu anda makan? (Boleh pilih **SATU** atau **DUA** jawapan sahaja)
எவ்வித துரித உணவை உட்கொள்வீர்கள் (ஒன்று அல்லது டிரண்டு விடையை மட்டும் தெர்வு செய்ய்க)
- A Roti / Bun / Sandwic / ரொட்டி / பன் / சான்விச்
- B Kentang goreng / பிரஞ் பிரைஸ்
- C Biskut / பிஸ்கிட்
- D Buah-buahan / பழம்
- E Kekacang / தானியம்
- F Keropok / கிழங்கு சிப்ஸ்
- G Aiskrim / பனிக்கூல்
- H Tidak ambil makanan ringan / துரித உணவு உட்கொள்வதில்லை

- B25** Berapa kerap anda mengambil makanan ringan tersebut dalam seminggu?
ஒரு வாரத்தில் எத்தனை முறை துரித உணவு உட்கொள்வீர்கள்?
- A 1 kali / 1 முறை
B 2 kali / 2 முறை
C 3 kali / 3 முறை
D 4 kali / 4 முறை
E 5 kali / 5 முறை
F 6 kali / 6 முறை
G 7 kali atau lebih / 7 முறைக்கு மேல்
H Tidak pernah makanan ringan atau snek / துரித உணவு உட்கொள்வதில்லை
- B26** Apakah jenis makanan dan/atau minuman yang selalu anda beli dari luar pagar sekolah?(Boleh pilih **SATU** atau **DUA** jawapan sahaja)
எத்தகைய உணவை பள்ளி வலாகத்தின் வெளியே பெறுவீர்கள்? (ஒன்று அல்லது யரண்டு விடையை மட்டும் தெர்வு செய்க)
- A Gula-gula/coklat / சாக்டெட்
B Kentang goreng / nuget / sosej / பிரஞ் பிரைஸ்/ நாகெட்/ சொசெஜ்
C Air berperisa/air berkarbonat / குளிர்்பானம்/ காற்போனெட்பானம்
D Makanan jeruk / ஊருகாய்
E Makanan ringan/rapu / துரித உணவு
F Keropok / சிப்ஸ்
G Aiskrim / பனிக்கூல்
H Tidak ambil makanan ringan di luar pagar sekolah / பள்ளி வலாகத்தின் வெளியே உணவு வாங்கமாட்டேன்
- B27** Dalam seminggu, adakah andamembeli makanan dan/atau minuman di luar pagar sekolah?
ஒரு வாரத்தில் எத்தனை முறை பள்ளி வலாகத்தின் வெளியே உணவு வாங்குவீர்கள்?
- A 1 kali / 1 முறை
B 2 kali / 2 முறை
C 3 kali / 3 முறை
D 4 kali / 4 முறை
E 5 kali / 5 முறை
F 6 kali / 6 முறை
G 7 kali atau lebih / 7 முறைக்கு மேல்
H Tidak pernah / பள்ளி வலாகத்தின் வெளியே உணவு வாங்கமாட்டேன்

Tinjauan Persekitaran Keluarga

B28 Sumber media manakah yang paling mempengaruhi pengambilan makanan anda?(Boleh pilih **SATU** atau **DUA** jawapan sahaja)

உங்கள் உணவு பழக்கமுறையை தூண்டிய தொடர்புத்துறை ஊடகம் எது? (ஒன்று அல்லது பரண்டு விடையை மட்டும் தெர்வு செய்க)

- A Media sosial (contoh : Internet, YouTube, Facebook, Instagram, Twitter) / சமூக வளைத்தலம்.(உதாரணம் : யூதுப், முகப்புத்தகம், துவித்தர்)
- B Televisyen / தொலைக்காட்சி
- C Radio / வானொலி
- D Media cetak (contoh: majalah, surat khabar, papan iklan, risalah, katalog) / அச்ச ஊடகங்கள் (உதாரணம்: பத்திரிகை, செய்தித்தாள், விளம்பரம், ஆய்வுகட்டுரைகள், அட்டவணை)
- E Tidak terpengaruh / பாதிக்கப்படவில்லை

MODUL C : AKTIVITI FIZIKAL

தொகுதி C : உடல் செயல்பாடு நடவடிக்கை

C1 Aktiviti Fizikal di waktu lapang: Adakah anda melakukan aktiviti-aktiviti yang disenaraikan di bawah sepanjang 7 hari yang lepas (minggu lepas). Jika **YA**, berapa kali?

ஒவ்வொரு நேரத்தில் உடல் செயல்பாடு நடவடிக்கைகள்: கடந்த 7 நாட்களில் கீழ்க் குறிப்பிடப்பட்டுள்ள நடவடிக்கையை மேற்கொண்டீர்களா? (கடந்த வாரம்). ஆம் என்றால் எத்துனை முறை?

	Aktiviti நடவடிக்கை	Tiada	1-2 kali முறை	3-4 kali முறை	5-6 kali முறை	7 kali atau lebih முறை
a	Lompat tali சிகிப்பிங்	A	B	C	D	E
b	Mendayung / Berkenu படகு ஓட்டல்	A	B	C	D	E
c	Silat / Karate / Taekwondo சிலாட் / கராட்டே / தைக்கொண்டோ	A	B	C	D	E
d	Bermain kejar-kejar ஓடி பிடித்து விளையாடல்	A	B	C	D	E
e	Bersenam dengan berjalan நடத்தல்	A	B	C	D	E
f	Berbasikal மிதிவண்டி ஓட்டல்	A	B	C	D	E
g	Joging / Berlari மெதுவோட்டம்	A	B	C	D	E
h	Senamrobik ஏரோபிக்ஸ்	A	B	C	D	E
i	Berenang நீச்சல் அடித்தல்	A	B	C	D	E
j	Bola lisut / Besbol பேல்பாஷ்	A	B	C	D	E
k	Menari நடனம்	A	B	C	D	E
l	Ragbi ரக்பி	A	B	C	D	E
m	Badminton பூப்பந்து	A	B	C	D	E
n	Hoki ஹோகி	A	B	C	D	E
o	Bola tampar கைப்பந்து	A	B	C	D	E
p	Bola keranjang / Bola jarring நெட்பால்	A	B	C	D	E
q	Sepak takraw செபாக் டாக்ரா	A	B	C	D	E
r	Bola sepak / Futsal காற்பந்து	A	B	C	D	E
s	Pingpong பிங்பொங்	A	B	C	D	E

Tinjauan Persekitaran (English)

- C2** Dalam 7 hari yang lepas semasa aktiviti kelas pendidikan jasmani, berapa kerap anda berada dalam keadaan sangat aktif (bermain, berlari, melontar, melompat).
கடந்த 7 நாட்களில் உடற்கல்வி பாடத்தின் பொழுது, எத்துனை முறை நீங்கள் முழுமையாகச் செயல்பட்டீர்கள்? (விளையாடுதல், ஓடுதல், குதித்தல்).
- A Saya tidak mengikuti kelas pendidikan jasmani
நான் உடற்கல்வி வகுப்பில் பங்குப்பெறவில்லை
- B Sangat jarang / மிகவும் குறைவு
- C Kadang-kadang / சில சமயத்தில்
- D Agak kerap / சற்று அதிகமாக
- E Selalu / எப்பொழுதும்
- C3** Dalam 7 hari yang lepas, apakah perkara yang anda biasa lakukan semasa waktu rehat di sekolah?
கடந்த 7 நாட்களில், ஓய்வு நேரத்தின் பொழுது நீங்கள் என்ன செய்தீர்கள்?
- A Duduk (berbual, membaca, membuat kerja sekolah)
உட்கார்ந்திருந்தேன் (பேசிக்கொண்டு, படித்துக்கொண்டு, பாடம் செய்துக்கொண்டு)
- B Berdiri atau berjalan-jalan
தின்றுகொண்டு அல்லது நடந்துக்கொண்டிருந்தேன்
- C Berlari atau bermain sedikit
ஓடிக்கொண்டு அல்லது விளையாடிக்கொண்டிருந்தேன்
- D Berlari dan bermain sedikit
ஓடிக்கொண்டுமற்றும் விளையாடிக்கொண்டிருந்தேன்
- E Berlari dan bermain hampir sepanjang masa
ஓய்வு நேரம் முழுவதும் விளையாடிக்கொண்டிருந்தேன்
- C4** Dalam 7 hari yang lepas, apakah perkara yang biasa anda lakukan semasa waktu makan tengahari (selain daripada makan)?
கடந்த 7 நாட்களில், ஓய்வு நேரத்தின் பொழுது நீங்கள் என்ன செய்தீர்கள்?
- A Duduk (berbual, membaca, membuat kerja sekolah)
உட்கார்ந்திருந்தேன் (பேசிக்கொண்டு, படித்துக்கொண்டு, பாடம் செய்துக்கொண்டு)
- B Berdiri atau berjalan-jalan
தின்றுகொண்டு அல்லது நடந்துக்கொண்டிருந்தேன்
- C Berlari atau bermain sedikit
ஓடிக்கொண்டு அல்லது விளையாடிக்கொண்டிருந்தேன்
- D Berlari dan bermain sedikit
ஓடிக்கொண்டுமற்றும் விளையாடிக்கொண்டிருந்தேன்
- E Berlari dan bermain hampir sepanjang masa
ஓய்வு நேரம் முழுவதும் விளையாடிக்கொண்டிருந்தேன்

- C5** Dalam 7 hari yang lepas, berapa harikah anda bersukan, menari atau bermain dengan **aktif sebaik sahaja tamat waktu persekolahan?**
கடந்த 7 நாட்களில், எத்துனை நாள் பள்ளி நேரத்திற்கு அப்பால் நீங்கள் உடல் செயல்பாடு நடவடிக்கையில் ஈடுபடுவீர்கள்?
- A Tiada / ஈடுபடிவதில்லை
B 1 hari / 1 நாள்
C 2 atau 3 hari / 2 அல்லது 3 நாள்
D 4 hari / 4 நாள்
E 5 hari / 5 நாள்
- C6** Dalam 7 hari yang lepas, berapa harikah anda bersukan, menari atau bermain dengan **aktif pada waktu petang?**
A Tiada / ஈடுபடவில்லை
B 1 hari / 1 நாள்
C 2 atau 3 hari / 2 அல்லது 3 நாள்
D 4 atau 5 hari / 4 அல்லது 5 நாள்
E 6 atau 7 hari / 6 அல்லது 7 நாள்
- C7** Pada hujung minggu yang lepas, berapa kali anda terlibat dengan aktiviti bersukan, menari atau melibatkan diri dengan permainan yang aktif?
கடந்த வாரத்தில் எத்துனை முறை நீங்கள் உடல் செயல்பாடு நடவடிக்கையில் ஈடுபட்டீர்கள்?
- A Tiada / ஈடுப்படமாட்டேன்.
B 1 kali / 1 முறை
C 2 atau 3 kali / 2 அல்லது 3 முறை
D 4 atau 5 kali / 4 அல்லது 5 முறை
E 6 atau lebih kali / 6 முறைக்கு மேல்

Tinjauan Persekitaran Keluarga

- C8** Yang manakah antara pernyataan berikut menggambarkan diri anda dalam tempoh 7 hari yang lepas?
கீழ்வருவனவற்றில் எது உண்மை?
- A Saya menggunakan semua atau kebanyakan masa lapang saya dengan melakukan aktiviti ringan
என் ஓய்வு நேரத்தில் சாதாரண உடற்பயிற்சியில் ஈடுபட்டேன்
 - B Saya kadang-kadang (1-2 kali seminggu) melakukan aktiviti fizikal semasa waktu lapang saya (contoh: bersukan, berlari, berenang, berbasikal, aktiviti aerobik)
என் ஓய்வு நேரத்தில் சில சமயம் (1-2 முறை ஒரு வாரத்தில்) உடல் செயல்பாட்டு நடவடிக்கையில் ஈடுபடுவேன். (உதாரணம்: ஓடுதல், நீச்சலடித்தல், மிடிவண்டி ஓட்டுதல், ஓரோபிக்ஸ்)
 - C Saya selalu (3-4 kali seminggu) melakukan aktiviti fizikal semasa waktu lapang saya (contoh: bersukan, berlari, berenang, berbasikal, aktiviti aerobik)
என் ஓய்வு நேரத்தில் (3-4 முறை ஒரு வாரத்தில்) உடல் செயல்பாட்டு நடவடிக்கையில் ஈடுபடுவேன். (உதாரணம்: ஓடுதல், நீச்சலடித்தல், மிடிவண்டி ஓட்டுதல், ஓரோபிக்ஸ்)
 - D Saya kerap (5-6 kali seminggu) melakukan aktiviti fizikal semasa waktu lapang saya (contoh: bersukan, berlari, berenang, berbasikal, aktiviti aerobik)
நான் ஓய்வு நேரத்தில் (5-6 முறை ஒரு வாரத்தில்) உடல் செயல்பாட்டு நடவடிக்கையில் ஈடுபடுவேன். (உதாரணம்: ஓடுதல், நீச்சலடித்தல், மிடிவண்டி ஓட்டுதல், ஓரோபிக்ஸ்)
 - E Saya sangat kerap (7 kali atau lebih seminggu) melakukan aktiviti fizikal semasa waktu lapang saya (contoh: bersukan, berlari, berenang, berbasikal, aktiviti aerobik)
நான் எப்பொழுதும் (7 முறைக்கு மேல் ஒரு வாரத்தில்) உடல் செயல்பாட்டு நடவடிக்கையில் ஈடுபடுவேன். (உதாரணம்: ஓடுதல், நீச்சலடித்தல், மிடிவண்டி ஓட்டுதல், ஓரோபிக்ஸ்)

C9 Tandakan kekerapan anda melakukan aktiviti fizikal (seperti bersukan, bermain, menari atau apa-apa aktiviti fizikal) untuk setiap hari pada minggu lepas.
எத்துனை முறை ஒரு வாரத்தில் உடல் செயல்பாட்டு நடவடிக்கையில் ஈடுபடுவீர்கள்?
(உதாரணம்: ஓடுதல், நீச்சலடித்தல், மிடிவண்டி ஓட்டுதல், ஓரோபிக்ஸ்) ஒரு நாளில் எத்துனை முறை?

Hari நாள்		Tiada Aktiviti நடவடிக்கையில் ஈடுபடுவதில்லை	(1-2 kali) (1-2 முறை)	(3-4 kali) (3-4 முறை)	(5-6 kali) (5-6 முறை)	(7 kali atau lebih) (7 முறைக்கு மேல்)
a	Isnin திங்கள்	A	B	C	D	E
b	Selasa செவ்வாய்	A	B	C	D	E
c	Rabu புதன்	A	B	C	D	E
d	Khamis வியாழன்	A	B	C	D	E
e	Jumaat வெள்ளி	A	B	C	D	E
f	Sabtu சனி	A	B	C	D	E
g	Ahad ஞாயிறு	A	B	C	D	E

- C10** Adakah anda sakit pada minggu lepas, atau adakah terdapat sebarang perkara yang menghalang anda daripada melakukan aktiviti fizikal yang biasa dilakukan pada minggu lepas?
கடந்த வாரம் உங்களின் உடல் நிலை பாதிக்கப்பட்டிருந்ததா, அல்லது ஏதாவது எதிர்பாராத சம்பவம் உடற்பயிற்சி நேரத்தை குறிக்கிட்டதா?
- A Ya / ஆம்
B Tidak / இல்லை
- C11** Pada **hujung minggu** adakah anda menonton televisyen dan/atau menggunakan komputer dan/atau bermain permainan video (contoh: *PSP, Playstation, Gameboy dan lain-lain*)?
கடந்த வார பறுதியில் தொலைக்காட்சி, கணினி, அல்லது கணினி விளையாட்டில் ஈடுபட்டீர்களா? (உதாரணம்: *பிஎஸ்பி, பிலே சி தேசன், கேம்போய் மற்றும் சில*)?
- A Ya / ஆம்
B Tidak / இல்லை
- C12** Berapa lamakah anda menonton televisyen dan/atau menggunakan komputer dan/atau bermain permainan video pada **hujung minggu**?
எவ்வளவு நேரம் கடந்த வார பறுதியில் தொலைக்காட்சி, கணினி, அல்லது கணினி விளையாட்டில் ஈடுபட்டீர்களா?
- A kurang dari 1 jam sehari
1 மணி நேரத்திற்கு குறைவாக
- B 1 jam hingga kurang dari 2 jam sehari
ஒரு நாளில் 1 மணியிலிருந்து 2 மணி நேரம்
- C 2 jam hingga kurang dari 3 jam sehari
ஒரு நாளில் 2 மணியிலிருந்து 3 மணி நேரம்
- D 3 jam hingga kurang dari 4 jam sehari
ஒரு நாளில் 3 மணியிலிருந்து 4 மணி நேரம்
- E Lebih dari 4 jam sehari
4 மணி நேரத்திற்கு மேல்
- C13** Pada **hari persekolahan** adakah anda menonton televisyen dan/atau menggunakan komputer dan/atau bermain permainan video (contoh: *PSP, Playstation, Gameboy dan lain-lain*)?
பள்ளி நாட்களில் தொலைக்காட்சி, கணினி, அல்லது கணினி விளையாட்டில் ஈடுபட்டீர்களா?
- A Ya / ஆம்
B Tidak / இல்லை

Tamil Language Version

- C14** Berapa lamakah anda menonton televisyen dan/atau menggunakan komputer dan/atau bermain permainan video pada **hari persekolahan**?
எவ்வளவு நேரம் டிவில் செலவழிப்பீர்கள்?
- A kurang dari 1 jam sehari
1 மணி நேரத்திற்கு குறைவாக
- B 1 jam hingga kurang dari 2 jam sehari
ஒரு நாளில் 1 மணியிலிருந்து 2 மணி நேரம்
- C 2 jam hingga kurang dari 3 jam sehari
ஒரு நாளில் 2 மணியிலிருந்து 3 மணி நேரம்
- D 3 jam hingga kurang dari 4 jam sehari
ஒரு நாளில் 3 மணியிலிருந்து 4 மணி நேரம்
- E Lebih dari 4 jam sehari
4 மணி நேரத்திற்கு மேல்

MODUL D : PERSEPSI PENGURUSAN BERAT BADAN	
தொகுதி D : உடல் எடை கட்டுப்பாடு	
Arahan : Pilih jawapan dan hitamkan pada kertas jawapan yang disediakan.	
கட்டளை : சரியான விடையைத் தெர்வு செய்து கொடுக்கப்பட்டுள்ள விடைத்தாளில்	
D1	<p>Pada masa sekarang, anda rasa anda : தற்சமயத்தில், என் உடல் எடை:</p> <p>A Kurang berat badan yang ketara மிகவும் குறைவாக உள்ளது</p> <p>B Kurang berat badan குறைவாக உள்ளது</p> <p>C Mempunyai berat badan yang sesuai சரியாக உள்ளது</p> <p>D Berlebihan berat badan சற்று அதிகமாக உள்ளது</p> <p>E Sangat berlebihan berat badan மிகவும் அதிகமாக உள்ளது</p>
D2	<p>Apakah yang anda sedang lakukan terhadap berat badan anda? உங்கள் உடல் எடையை சரிசெய்ய நீங்கள் ஏதாவது முயற்சியில் ஈடுபட்டுள்ளீர்களா?</p> <p>A Saya sedang berusaha untuk menurunkan berat badan saya உடல் எடையை குறைக்க முயற்சிக்கிறேன்</p> <p>B Saya sedang berusaha untuk menambahkan berat badan saya உடல் எடையை அதிகரிக்க முயற்சிக்கிறேன்</p> <p>C Saya tidak membuat apa-apa terhadap berat badan saya ஒரு முயற்சியிலும் ஈடுபடவில்லை</p> <p>D Saya sedang mengekalkan berat badan saya உடல் எடையை கட்டுப்படுத்த முயற்சிக்கிறேன்</p>
D3	<p>Sekiranya anda berhasrat untuk mengurangkan berat badan, apakah faktor utama yang mendorong anda berbuat demikian? எனனால் நீங்கள் உடல் எடையை குறைக்க முயற்சி செய்கிறீர்கள்?</p> <p>A Kesihatan உடல் நிலையைப் பேச</p> <p>B Kecantikan அழகைப் பேச</p> <p>C Meningkatkan keyakinan diri தன்னிக்கையை உயர்த்த</p> <p>D Mendapat ramai kawan நிறைய நண்பர்கள் கிடைக்க</p> <p>E Tidak berhasrat mengurangkan berat badan உடல் எடையைக் குறைக்க விருப்பமில்லை</p>

Tinjauan Persekitaran Keluarga

D4 Sekiranya anda berhasrat untuk **mengurangkan berat badan**, apakah kaedah yang menjadi pilihan utama anda?
 எவ்வாறு உடல் எடையை குறைக்க விருப்பம்?

- A Bersenam
உடற்பயிற்சி
- B Kurangkan pengambilan makanan tinggi lemak (contoh: makanan bergoreng)
கொழுப்பு நிறைந்த உணவை குறைத்தல்
- C Kurangkan pengambilan makanan manis
டீயிப்பு நிறைந்த உணவை குறைத்தல்
- D Meningkatkan pengambilan sayur-sayuran dan buah-buahan
நிறைய பழம் மற்றும் காய்கறிகள் உட்கொள்ளுதல்
- E Tidak mengambil hidangan utama (sarapan/ tengah hari/ makan malam)
உணவை தவிர்த்தல் (காலை சிற்றுண்டி/ மாலை உணவு/ யரவு உணவு)
- F Mengambil pil diet/menggunakan krim pelangsing tubuh
மருந்து பயன்படுத்துதல்
- G Berpuasa
விரதம்
- H Mendapat khidmat professional
அறிவுரை நாடுதல்
- I Tidak berhasrat mengurangkan berat badan
உடல் எடையைக் குறைக்க விருப்பமில்லை

D5 Sekiranya anda berhasrat untuk **menambahkan berat badan**, apakah faktor utama yang mendorong anda berbuat demikian?
 அதனால் நீங்கள் உடல் எடையை அதிகரிக்க முயற்சி செய்கிறீர்கள்?

- A Kesihatan / உடல் நிலையைப் பேண
- B Kecantikan / அழகைப் பேண
- C Meningkatkan keyakinan diri / தன்னிக்கையை உயர்த்த
- D Mendapat ramai kawan / நிறைய நண்பர்கள் கிடைக்க
- E Tidak berhasrat menambah berat badan / உடல் எடையைக் அதிகரிக்க விருப்பமில்லை

D6 Sekiranya anda berhasrat untuk **menambahkan berat badan**, apakah kaedah yang menjadi pilihan utama anda?
 எவ்வாறு உடல் எடையை அதிகரிப்பீர்கள்?

- A Menambah kuantiti makanan yang diambil
உட்கொள்ளும் உணவின் அளவை அதிகரிப்பேன்
- B Mengambil suplemen (Makanan tambahan seperti susu, suplemen vitamin)
மருந்து உட்கொள்ளுவேன்
- C Mengambil makanan yang berkalori tinggi
அதிக புரதச்சத்து உள்ள உணவை உட்கொள்ளுவேன்
- D Lain-lain
மற்றது
- F Tidak berhasrat menambah berat badan
உடல் எடையைக் அதிகரிக்க விருப்பமில்லை

MODUL E :	PENGAMBILAN SUPLEMEN
தொகுதி E :	விடமின் மற்றும் மாற்றுச்சத்துணவு உட்கொள்ளுதல்
Arahan : Pilih jawapan dan hitamkan pada kertas jawapan yang disediakan.	
கட்டளை : சரியான விடையைத் தெர்வு செய்து கொடுக்கப்படுள்ள விடைத்தாளில்	
E1	<p>Adakah anda ada mengambil sebarang suplemen vitamin / mineral? நீங்கள் விடமின் ஏதாவது உட்கொள்கிறீர்களா?</p> <p>A Ya / ஆம்</p> <p>B Tidak / இல்லை</p> <p>(Jika TIDAK, sila jawab TIDAK AMBIL SUPLEMEN di soalan E2, E3, dan E4) (இல்லை என்றால், விடமின் உட்கொள்ளவில்லை என்று E2, E3, மற்றும் E4 கேள்விகளில் விடையளிக்கவும்)</p>
E2	<p>Apakah jenis suplemen vitamin / mineral yang biasa diambil? எவ்வகை விடமின் உட்கொள்வீர்கள்?</p> <p>A Multivitamin / மல்திவிடமின்</p> <p>B Vitamin C / விடமின் C</p> <p>C Zat besi (Ferum) / டிரும்பு சத்து</p> <p>D Lain-lain / மற்றது</p> <p>E Tidak ambil suplemen / விடமின் உட்கொள்ளவில்லை</p>
E3	<p>Apakah sebab anda mengambil suplemen vitamin / mineral tersebut? எதனால் விடமின் உட்கொள்கிறீர்கள்?</p> <p>A Atas arahan doktor / மருத்துவரின் ஆலோசனை</p> <p>B Atas arahan ibubapa / பெற்றோரின் ஆலோசனை</p> <p>C Kesedaran sendiri / சுய முயற்சி</p> <p>D Pengaruh kawan-kawan / நண்பர்களால்</p> <p>E Lain-lain / மற்றது</p> <p>F Tidak ambil suplemen / விடமின் உட்கொள்ளவில்லை</p>
E4	<p>Berapa kerap anda mengambil suplemen vitamin / mineral tersebut? ஒரு வாரத்தில் எத்தனை முறை நீங்கள் விடமின் உட்கொள்வீர்கள்?</p> <p>A Setiap hari / ஒவ்வொரு நாளும்</p> <p>B 5-6 kali seminggu / 5-6 முறை</p> <p>C 3-4 kali seminggu / 3-4 முறை</p> <p>D 1-2 kali seminggu / 1-2 முறை</p> <p>E Tidak ambil suplemen / விடமின் உட்கொள்ளவில்லை</p>

Tinjauan Persekitaran Keluarga

- E5** Adakah anda ada mengambil sebarang suplemen **makanan**?
நீங்கள் மாற்றுச்சத்துணவு உட்கொள்வீர்களா?
- A Ya / ஆம்
B Tidak / பல்லை
- (Jika **TIDAK**, sila jawab **TIDAK AMBIL SUPLEMEN** di soalan E6, E7, dan E8)
(பல்லை என்றால், விடமின் உட்கொள்ளவில்லை என்று E2, E3, மற்றும் E4 கேள்விகளில் விடையளிக்கவும்)
- E6** Apakah jenis suplemen makanan yang biasa diambil?
எவ்விதமான மாற்றுச்சத்துணவை நீங்கள் உட்கொள்கிறீர்கள்?
- A Spirulina / சிபிருலினா
B Minyak ikan / மீன் எண்ணை
C Madu atau hasil madu / தேன்
D Pati ayam / கோழி ஸ்தார்ச்
E Lain-lain / மற்றது
F Tidak ambil suplemen / விடமின் உட்கொள்ளவில்லை
- E7** Apakah sebab anda mengambil suplemen makanan tersebut?
எதனால் மாற்றுச்சத்துணவு உட்கொள்கிறீர்கள்?
- A Atas arahan doktor
மருத்துவரின் ஆலோசனை
B Atas arahan ibubapa
பெற்றோரின் ஆலோசனை
C Kesedaran sendiri
சுய முயற்சி
D Pengaruh kawan-kawan
நண்பர்களால்
E Lain-lain
மற்றது
F Tidak ambil suplemen
விடமின் உட்கொள்ளவில்லை
- E8** Berapa kerap anda mengambil suplemen makanan tersebut?
ஒரு வாரத்தில் எத்தனை முறை நீங்கள் மாற்றுச்சத்துணவு உட்கொள்வீர்கள்?
- A Setiap hari / ஒவ்வொரு நாளும்
B 5-6 kali seminggu / 5-6 முறை
C 3-4 kali seminggu / 3-4 முறை
D 1-2 kali seminggu / 1-2 முறை
E Tidak ambil suplemen / விடமின் உட்கொள்ளவில்லை

MODUL F :	LABEL MAKANAN DAN PEMAKANAN (SEKOLAH MENENGAH SAHAJA)																		
தொகுதி F :	உணவு மற்றும் உணவு உல்கொள்ளும்முறையையும்குறிப்பிடுக. (படைநிலைப்பள்ளி மட்டும்)																		
Arahan : Pilih jawapan dan hitamkan pada kertas jawapan yang disediakan.																			
கட்டளை : சரியான விடையைத் தேர்வு செய்து கொடுக்கப்படுள்ள விடைத்தாளில்																			
F1	<p>Adakah anda membaca label makanan ketika membeli atau menerima makanan/minuman? ஒர் உணவுப் பொருளை வாங்குவதற்கு முன் நீங்கள் அதன் அடையாள அட்டையை படிப்பீர்களா?</p> <p>A. Ya, setiap kali (terus ke soalan F3 dan jawab hingga soalan F10) ஆம், ஒவ்வொருமுறையும் (கேள்வி F3- டல்பருந்து F10 வரை பதிலளிக்கவும்)</p> <p>B. Ya, kadang-kadang / ஆம், சில சமயத்தில்</p> <p>C. Tidak (silalah jawab soalan F2 dan terus ke soalan F5 hingga F8) டல்லை (கேள்வி F2 மற்றும் F5 பின் அதிலிருந்து தொடர்ந்து F8 வரை பதிலளிக்கவும்)</p>																		
F2	<p>Jika anda tidak membaca label makanan, nyatakan sebab-sebabnya? Anda boleh memilih lebih daripada satu jawapan. எதனால் நீங்கள் அவ்வடையாள அட்டையை படிக்கமாதிர்கள்? ஒரு விடைக்கு மேல் தேர்வு செய்யலாம்.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Sebab-sebab tidak membaca label makanan காரணம்</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Tulisan kecil / சிறிய எழுத்து</td> </tr> <tr> <td>B</td> <td>Tidak faham / புரியவில்லை</td> </tr> <tr> <td>C</td> <td>Tidak menarik / கவனத்தை ஈர்க்கவில்லை</td> </tr> <tr> <td>D</td> <td>Tidak tahu kepentingan / முக்கியத்துவம் தெரியவில்லை</td> </tr> <tr> <td>E</td> <td>Tiada masa / நேரமில்லை</td> </tr> <tr> <td>F</td> <td>Telah mengetahui tentang maklumat அந்த உணவைப் பற்றித் தெரியும்</td> </tr> </tbody> </table>	Sebab-sebab tidak membaca label makanan காரணம்		A	Tulisan kecil / சிறிய எழுத்து	B	Tidak faham / புரியவில்லை	C	Tidak menarik / கவனத்தை ஈர்க்கவில்லை	D	Tidak tahu kepentingan / முக்கியத்துவம் தெரியவில்லை	E	Tiada masa / நேரமில்லை	F	Telah mengetahui tentang maklumat அந்த உணவைப் பற்றித் தெரியும்				
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F3	<p>Apakah jenis maklumat panel maklumat pemakanan yang anda baca? Anda boleh memilih lebih daripada satu jawapan. எந்த வகையான தகவலை நீங்கள் உணவு அடையாள அட்டையில் படித்தீர்கள்? ஒரு விடைக்கு மேல் தேர்வு செய்யலாம்</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Maklumat khasiat makanan</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Jumlah tenaga makanan உணவுச்சத்து</td> </tr> <tr> <td>B</td> <td>Kandungan karbohidrat/gula ஈட்டிச்சத்துமற்றும் சர்க்கரையின்அளவு</td> </tr> <tr> <td>C</td> <td>Kandungan lemak கொழுப்பின் அளவு</td> </tr> <tr> <td>D</td> <td>Kandungan protein புரதச்சத்து</td> </tr> <tr> <td>E</td> <td>Kandungan garam/natrium உப்பின் அளவு</td> </tr> <tr> <td>F</td> <td>Kandungan vitamin விட்டமினின் அளவு</td> </tr> <tr> <td>G</td> <td>Kandungan mineral கனிமத்தின் அளவு</td> </tr> <tr> <td>H</td> <td>Serat (fiber) ஈபபெர்</td> </tr> </tbody> </table>	Maklumat khasiat makanan		A	Jumlah tenaga makanan உணவுச்சத்து	B	Kandungan karbohidrat/gula ஈட்டிச்சத்துமற்றும் சர்க்கரையின்அளவு	C	Kandungan lemak கொழுப்பின் அளவு	D	Kandungan protein புரதச்சத்து	E	Kandungan garam/natrium உப்பின் அளவு	F	Kandungan vitamin விட்டமினின் அளவு	G	Kandungan mineral கனிமத்தின் அளவு	H	Serat (fiber) ஈபபெர்
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Tinjauan Pemakanan Remaja

F4 Mengambil contoh gambar minuman di bawah, apakah jenis maklumat berikut yang anda baca? **Anda boleh memilih lebih daripada satu jawapan.**

கீழ்க்காட்டுக்கப்பட்டிருள்ள தண்ணீர் பாட்டிலில் எவ்வகையான தகவலை நீங்கள் பெற முடியும்?, (ஒரு விடைக்கு மேல் தேர்வு செய்யலாம்)



Jenis Maklumat தகவல்களின் வகை	
A	Tarikh luput காலாவதியாகும் திகதி
B	Akuan pemakanan ஊட்டச்சத்து கூற்றுகள்
C	Panel maklumat pemakanan ஊட்டச்சத்து தகவல்
D	Logo halal ஹலால் சின்னம்
E	Senarai ramuan/bahan பொருளடக்கம்
F	Arahan penyimpanan வழிமுறை

Berdasarkan kepada panel maklumat pemakanan pada **satu Minuman Kotak XYZ** yang ditunjukkan di bawah. Sila baca dan nyatakan sama ada kenyataan berikut adalah betul atau salah.

கீழ்க்காணும் அட்டவணையில் குளிர்பானம் XYZ-யின் ஊட்டச்சத்து தகவல்கள்கொடுக்கப்பட்டுள்ளது. அதை படித்தப்பின் கொடுக்கப்பட்டுள்ளகூற்றுக்கள் சரி அல்லது பிழை என அடையாளம் காணுக.

Maklumat Pemakanan bagi Minuman XYZ குளிர்பானம் XYZ		
Saiz hidangan : 250ml பானத்தின் அளவு : 250ml Jumlah hidangan bagi setiap kotak: 1 பரிமாறும் அளவு: 1		
	100 ml	250ml
Tenaga (kcal) சத்து	56	140
Karbohidrat (g) ஊட்டச்சத்து	10.9	27.3
Jumlah gula (g) சர்க்கரை	10.6	26.5
Protein (g) புரதச்சத்து	0	0
Lemak (g) கொழுப்பு	0	0

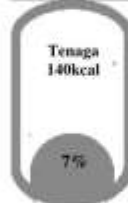
- F5** Jika saya minum 100ml minuman ini, ia membekalkan 56 kcal tenaga.
நான் 100ml குளிர்பானம் குடித்தால், எனக்கு 56 கலோரிச் சத்துகள் கிடைக்கும்.
- A Betul / சரி
B Salah / பிழை
C Tidak tahu / தெரியவில்லை
- F6** Jika saya minum satu kotak minuman ini, bermaksud saya telah mengambil 26.5 gram gula.
ஓர் குளிர்பானத்தை நான் முழுமையாக அருந்தினால், நான் 26.5 கிராம் சர்க்கரை எடுப்பதற்கு ஈடாகும்.
- A Betul / சரி
B Salah / பிழை
C Tidak tahu / தெரியவில்லை

Tinjauan Pemakanan Remaja

Berdasarkan kepada label kandungan tenaga pada pandangan hadapan (*front of pack labelling*) di bawah, sila nyatakan sama ada kenyataan berikut adalah betul atau salah.

கீழ்க்காணும் கலோரி தகவலுக்கேற்ப, கொடுக்கப்பட்டுள்ள கூற்று சரி அல்லது பிழை என்று குறிப்பிடுக.


Satu Hidangan
Mengandungi 250 ml
ஒரு பரிமாறலில் 250 ml உள்ளது



Berdasarkan
2000kcal

- F7** Nilai tenaga untuk dua hidangan makanan ini adalah 140kcal. 2 பரிமாறலில் சத்தின் அளவு 140kcal.
- A Betul / சரி
B Salah / பிழை
C Tidak tahu / தெரியவில்லை
- F8** Jika saya minum satu hidangan makanan ini, ia membekalkan 7% tenaga daripada 2000 kalori tersebut. நான் டீய்வுண்டவை உட்கொண்டால், எனக்கு 2000 கலோரியிலிருந்து 7% சத்து கிடைக்கும்.
- A Betul / சரி
B Salah / பிழை
C Tidak tahu / தெரியவில்லை

Produk aiskrim A
பனிக்கூல் A



Senarai Ramuan /Bahan:
உள்ளடக்கம்:

Gula, Olein/Minyak Isirung Kelapa Sawit, Pepejal Susu, Sirap Glukosa, Serbuk Koko
சர்க்கரை, பனை எண்ணெய், பால், Sirap குளுகோஸ், கொக்கோ

F9 Apakah ramuan/bahan paling banyak digunakan dalam aiskrim ini?
பப்பனிக்கூலில் அதிகமான அளவில் பயன்படுத்தப்பட்டுள்ள பொருள் எது?

A. Pepejal susu
பால்

B. Sirap glukosa
குளுகோஸ்

C. Gula
சர்க்கரை

D. Olein/Minyak isirung kelapa sawit
பனை எண்ணெய்

E. Serbuk koko
கொக்கோ

F10 Apakah ramuan/bahan yang paling sedikit dalam aiskrim ini?
பப்பனிக்கூலில் குறைவான அளவில் பயன்படுத்தப்பட்டுள்ள பொருள் எது?

A. Sirap glukosa
குளுகோஸ்

B. Gula
சர்க்கரை

C. Olein/Minyak isirung kelapa sawit
பனை எண்ணெய்

D. Pepejal susu
பால்

E. Serbuk koko
கொக்கோ

Tinjauan Pendidikan Kesihatan

MODUL G : PENGUKURAN ANTROPOMETRI தொகுதி G : ஆந்தரோபோமெற்றிக் அளவீடுகள்				
Arahan : Bahagian ini akan diisi oleh pelajar di dalam kertas jawapan yang disediakan. கட்டளை: கீழ்க்காணும் பத்திரத்தை நிரப்புக.				
G1	Tarikh pengukuran Antropometri ஆந்தரோபோமெற்றிக் அளவு எடுக்கப்பட்ட திகதி <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20%;">Hari நாள்</td> <td style="width: 20%;">Bulan மாதம்</td> <td style="width: 60%;">Tahun ஆண்டு</td> </tr> </table>	Hari நாள்	Bulan மாதம்	Tahun ஆண்டு
Hari நாள்	Bulan மாதம்	Tahun ஆண்டு		
G2	Berat Badan உடல் எடை Berat 1 எடை 1 <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg Berat 2 எடை 2 <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg Enggan diukur அளக்கவில்லை <input type="checkbox"/>			
G3	Tinggi உயரம் Tinggi 1 உயரம் 1 <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> cm Tinggi 2 உயரம் 2 <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> cm Enggan diukur அளக்கவில்லை <input type="checkbox"/>			

ADOLESCENT NUTRITION SURVEY 2017
马来西亚学生营养调查 2017




Survey form/调查问卷

INTRODUCTION / 简介

The survey was conducted to determine the nutritional status, eating habits, food intake, physical activity level, and the use of food labels and nutrition. Selected student from all over the country will also answer this questionnaire.
 这项调查是为了解你的营养状况，饮食习惯，食物摄取，体能活动质量，和食品标签应用。在全国各地与你一样被选中的学生，也会回答这份问卷。

The information you provide will be used to develop better health programs for the future younger generation.
 你所提供的资料将被用于规划更好的健康方案给予像你一样的年轻一代。

Guide to filling survey forms/填写问卷指南

1. Your responses will be kept **CONFIDENTIAL**. Answer the questions based on what you know and what you do. There is no right or wrong answers.
 你提供的答案将被**保密**。请跟你所知道与你所做的来作答。答案没有对错之分。
2. Read the question carefully. Shade your answer on the answer sheet provided with a 2B pencil supplied.
 请仔细阅读问题。请使用所提供的2B铅笔并在准备好的答案纸上划黑作答。
3. How to shade the answer/如何划黑作答：
 Shade your answer like this  Not like this  or 
 如此划黑作答 不是这样划 或这样
4. Only one answer for each question UNLESS there are other instructions.
 每题只能拥有一个答案，除非有其他指示。
5. If you do not understand, please raise your hand to ask question.
 如果你在作答期间不明白，请举手发问。
6. Kindly wait for instruction from your class facilitator once you have completed the survey.
 当你回答完毕，请等待班上协调员的指令。

THANK YOU FOR YOUR WILLINGNESS TO COMPLETE THE SURVEY
感谢你愿意回答问卷

MODULE A : PERSONAL INFORMATION			
A组：个人资料			
INSTRUCTION : Fill the student ID, date of birth and shade your answer on the answer sheet provided			
指示：填写学生编号，出生日期并在准备好的答案纸上划黑作答			
A1	Student ID/ 学生编号	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	State 州属 Strata 区域 School Category 学校类别 School code 学校编号 Class 班级 Student 学生
A2	Date of birth/ 出生日期	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Day/日期 Month/月 Year/年份
A3	Gender/性别	A. Male/男 B. Female/女	
A4	Ethnicity/种族	A. Malay/马来人 D. Sabah indigenous/沙巴土著 B. Chinese.华人 E. Sarawak indigenous /沙撈越土著 C. Indian/印度人 F. Others/其他	
		Primary school/小学	Secondary school/中学
A5	Class/年级	A. Primary 4/4年级 B. Primary 5/5年级 C. Primary 6/6年级	D. Remove class/预备班 G. Secondary3/初中3 E. Secondary1/初中1 H. Secondary4/初中4 F. Secondary2/初中2 I. Secondary5/初中5
A6	Age/年龄	A. 10 year old/10岁 B. 11 year old /11岁 C. 12 year old /12岁	D. 13 year old /13岁 G. 16 year old /16岁 E. 14 year old / 14岁 H. 17 year old / 17岁 F. 15 year old / 15岁 I. 18 year old / 18岁

MODULE B: Meal pattern	
组 B: 饮食习惯	
Instruction: Choose the answer and shade on the answer sheet provided	
指示: 请在准备好的答案纸上划圈作答	
B1	<p>What is your school session? 请问你现在就读早上或下午班?</p> <p>A Morning session only/上午班 B Afternoon session only/下午班 C Morning and afternoon session/上午至下午班</p>
B2	<p>Normally, how many days in a week do you take breakfast (from 6.00AM till 8.00AM)? 你通常在一个星期内有几天会吃早餐(从早上6点到8点)?</p> <p>A 1 day/1天 B 2 days/2天 C 3 days/3天 D 4 days/4天 E 5 days/5天 F 6 days/6天 G 7 days/7天 H Not applicable / I do not take breakfast/不相关 / 没有吃早餐</p>
B3	<p>Normally, where do you get your breakfast from? 你通常从哪里获得早餐?</p> <p>A Prepared at home/在家准备 B Buy from school canteen/学校食堂购买 C Buy at restaurant or kiosk/餐馆或摊子购买 D Provided by the hostel/宿舍提供 E Others/其他途径 F I do not take breakfast/没有吃早餐</p>
B4	<p>If you do not take breakfast, what is the reason? 如果你没有吃早餐, 请问是什么原因?</p> <p>A No food/没有食物 B No appetite/没有胃口 C No time/没有时间 D On diet/ control body weight/节食/控制体重 E No money/没有钱 F Others/其他原因 G Not applicable/ because I take breakfast everyday 不相关/我每天都吃早餐</p>

B5 Normally, how many days in a week do you eat and/or drink during school break time?
你通常在一个星期内有几天会在学校休息节时吃食物与/或喝饮料?

- A 0 day/0天
- B 1 day/1天
- C 2 days/2天
- D 3 days/3天
- E 4 days/4天
- F 5 days/5天

B6 Normally, where do you obtain the food?
你通常从哪里获得该食物?

- A Bring from home/在家准备
- B Buy from school canteen/学校食堂购买
- C Buy at restaurant or kiosk/餐馆或摊子购买
- D Provided by hostel/宿舍提供
- E Others/其他途径
- F Not applicable/ I do not consume food and/or drink during school break time
不相关/没有在学校休息节时吃食物与/或喝饮料

B7 Normally, how many days in a week do you consume lunch (11.00AM till 3.00PM)?
你通常在一个星期内有几天会吃午餐 (从早上11点到下午3点)?

- A 1 day/1天
- B 2 days/2天
- C 3 days/3天
- D 4 days/4天
- E 5 days/5天
- F 6 days/6天
- G 7 days/7天
- H I do not take lunch/没有吃上午餐

B8 Normally, where do you obtain the food?
你通常从哪里获得该食物?

- A Prepared at home/在家准备
- B Buy from school canteen/学校食堂购买
- C Buy from restaurant or kiosk/餐馆或摊子购买
- D Provided by hostel/宿舍提供
- E Others/其他途径
- F Not applicable/ I do not take lunch/不相关/没有吃午餐

- B9** If you do not take lunch, what is the reason?
如果你没有吃午餐，请问是什么原因？
- A No food/没有食物
 - B No appetite/没有胃口
 - C No time/没有时间
 - D On diet/ control body weight/节食/控制体重
 - E No money/没有钱
 - F Others/其他原因
 - G Not applicable/ I take lunch/不相关/ 我有吃午餐
- B10** Normally, how many days in a week do you have afternoon tea (3.00PM till 6.00PM)?
你通常在一个星期内有几天会吃下午茶点（从下午3点到傍晚6点）？
- A 1 day/1天
 - B 2 days/2天
 - C 3 days/3天
 - D 4 days/4天
 - E 5 days/5天
 - F 6 days/6天
 - G 7 days/7天
 - H No afternoon tea/没有吃下午茶
- B11** Normally, where do you obtain the food?
你通常从哪里获得下午茶点的食物？
- A Prepared at home/在家准备
 - B Buy from school canteen/学校食堂购买
 - C Buy from restaurant or kiosk/餐馆或摊子购买
 - D Provided by hostel/宿舍提供
 - E Others/其他途径
 - F Not having afternoon tea/没有吃下午茶点
- B12** Normally, how many days in a week do you have dinner(6.00PM till10.00PM)?
你通常在一个星期内有几天会吃晚餐（从傍晚6点到晚上10点）？
- A 1 day/1天
 - B 2 days/2天
 - C 3 days/3天
 - D 4 days/4天
 - E 5 days/5天
 - F 6 days/6天
 - G 7 days/7天
 - H Not having dinner/没有吃晚餐

- B13** Normally, where do you obtain the food?
通常从哪获得该食物?
- A Prepared at home/在家准备
 - B Buy from restaurant or kiosk/餐馆或摊子购买
 - C Provided by hostel/宿舍提供
 - D Others/其他途径
 - E Not applicable/ I do not take dinner/不相关/ 没有吃晚餐
- B14** If you do not take dinner, what is the reason?
如果你没有吃晚餐，请问是什么原因?
- A No food/没有食物
 - B No appetite/没有胃口
 - C No time/没有时间
 - D On diet/节食
 - E No money/没有钱
 - F Others/其他原因
 - G Not applicable/ I take dinner/不相关/ 有吃晚餐
- B15** For the past one week, how often do you take heavy meals after dinner? (Example: nasilemak, roti canai, fried mee, burger, fried chicken, instant noodle and etc.This does not include light snacks, eg 2 pieces of biscuit and/or one glass of milk)
在上周里面，有几天你在完晚饭后会吃难消化的食物？（例：椰浆饭，印度煎饼，炒面，汉堡包，炸鸡，快熟面等。这不包括小吃，例如2块饼干和/或一杯牛奶）
- A 1 day/1天
 - B 2 days/2天
 - C 3 days/3天
 - D 4 days/4天
 - E 5 days/5天
 - F 6 days/6天
 - G 7 days/7天
 - H I do not take heavy meals after dinner/晚餐后不再吃东西
- B16** Where do you take the heavy meals?
你从哪里享用该食物?
- A Home/家里
 - B Restaurant/ kiosk/餐馆或摊子
 - C Hostel/宿舍
 - D Others/其他地方
 - E Not applicable/ I do not take heavy meals/不相关/ 晚餐后不再吃东西

- B17** Normally, how many days in a week do you eat fast food bought from fast food restaurant, such as burger, pizza, fried chicken, French fries, nugget and etc?
你通常在一个星期内有几天会吃从快餐店购买的食物如汉堡包, 披萨饼, 炸鸡, 薯条, 鸡肉块等等?
- A 1 day/1天
 - B 2 days/2天
 - C 3 days/3天
 - D 4 days/4天
 - E 5 days/5天
 - F 6 days/6天
 - G 7 days/7天
 - H No fast food/没有吃快餐
- B18** How often do you bring food to school?
你可否有从家里携带便当/食物到学校?
- A Everyday/每天
 - B Occasionally/偶尔 (有时候会)
 - C Never/没有携带
- B19** What is the usual packed meal that you bring to school? (Can choose **ONE** or **TWO** answer(s) only)
通常会带什么食物到学校? (只能选择一个或两个答案)
- A *Nasi lemak*/fried rice/mixed rice
椰浆饭 / 炒饭 / 饭菜
 - B Noodle / Vermicelli / KuehTeow
面 / 米粉 / 河粉
 - C Bread / Bun / Sandwich
面包 / 馒头 / 三文治
 - D Nugget / Sausage / Burger
鸡肉块 / 香肠 / 汉堡包
 - E Biscuit/饼干
 - F Fruits/水果
 - G Others/其他
 - H I do not bring packed meal/没有携带食物
- B20** How often do you bring drink to school?
你可否有从家里携带饮料到学校?
- A Everyday/每天
 - B Occasionally/偶尔 (有时候会)
 - C Never/没有携带

- B21** What is the usual drink that you bring to school?(Can choose **ONE** or **TWO** answer(s) only)
通常会带什么饮料到学校? (只能选择一个或两个答案)
- A Plain water/白开水
 - B Flavored water/packed drink/syrup drink/tea/coffee/Milo
有味饮料 / 包装饮料 / 糖浆饮料 / 茶 / 咖啡 / 美禄
 - C Carbonated drink/汽水
 - D Milk/ cultured drink/奶/ 酸奶饮品 (优格)
 - E Others/其他
 - F I don't bring drink to school/没有携带饮料
- B22** Normally, where do you mostly spend your pocket money?
你最常把零用钱花在哪一方面?
- A Buy food and/ or drink/购买食物X或饮料
 - B Buy stationery/购买文具
 - C Saving/储蓄
 - D Others/其他
 - E I do not bring pocket money to school/没有零用钱
- B23** How often do you eat outside in a week?Not included eating in the school and hostel?
你通常在一个星期内有几天会在外用餐? 不包括在学校和宿舍?
- A 1 time/1次
 - B 2 times/2次
 - C 3 times/3次
 - D 4 times/4次
 - E 5 times/5次
 - F 6 times/6次
 - G 7 times or more/7次或以上
 - H Never/没有在外面用餐
- B24** What kind of snack foods that you always eat?(Can choose **ONE** or **TWO** answer(s) only)
你最常吃的零食是什么? (只能选择一个或两个答案)
- A Bread / Bun / Sandwich/面包 / 馒头 / 三文治
 - B French fries/薯条
 - C Biscuit/饼干
 - D Fruits/水果
 - E Nuts/花生
 - F Fish cracker/炸鱼饼/虾饼
 - G Ice cream/冰淇淋
 - H I do not take snack food/没有吃零食

- B25** How often do you take snack foods in a week?
你在一个星期内吃多少次零食?
- A 1 time/1次
 - B 2 times/2次
 - C 3 times/3次
 - D 4 times/4次
 - E 5 times/5次
 - F 6 times/6次
 - G 7 times or more/7次或以上
 - H Never take snack food before/没有吃零食
- B26** What types of food and/or drinks that you always buy out of school area?(Can choose **ONE** or **TWO** answer(s) only)
你从学校范围外买些什么类型的食物和/或饮料? (只能选择一个或两个答案)
- A Candy/chocolate/糖果 / 巧克力
 - B French fries/ nugget / sausage/薯条 / 鸡肉块 / 香肠
 - C Flavoured drink/ carbonated drink/各种口味饮料 / 汽水
 - D Pickles/腌制食物
 - E Snack food/零食
 - F Fish cracker/炸鱼饼/虾饼
 - G Ice cream/冰淇淋
 - H Never take snack food outside the school area/没有买学校范围外的食物
- B27** Within a week, how often do you buy food and/or drink outside school compound?
在一星期内, 你可否有从学校范围外买食物和/或饮料?
- A 1 time/1次
 - B 2 times/2次
 - C 3 times/3次
 - D 4 times/4次
 - E 5 times/5次
 - F 6 times/6次
 - G 7 times or more/7次或以上
 - H Never/没有购买
- B28** Which media source(s) that most affect your dietary pattern? (Can choose **ONE** or **TWO** answer (s) only)/
什么媒体最影响你的食物选择? (只能选择一个或两个答案)
- A Social media (example : Surf Internet / YouTube / Facebook / Instagram, Twitter)
社交网站 (例: 浏览网站 / 视频网站 / 面子书)
 - B Television/电视机
 - C Radio/电台
 - D Printed media (Example: magazine, newspaper, billboard, brochure, catalogue)
平面媒体 (例子: 杂志, 报章, 广告牌, 传单, 购物目录)
 - E Not affected/没有被影响

Survei Kesihatan Kebangsaan

MODULE C: PHYSICAL ACTIVITY						
C组：体能活动						
Instruction: Choose the answer and shade on the answer sheet provided						
指示：请在准备好的答案纸上划黑作答						
C1 Physical activity during leisure time: Are you doing the activities listed below during the last 7 days (last week). If YES, how many times?						
休闲体能活动：在过去的7天（上周）你有做出以下列出的哪些活动。如果有，请问多少次？						
	Activity/活动	Never/ 没有	1-2 times/ 1-2次	3-4 times/ 3-4次	5-6 times/ 5-6次	7 times or more/ 7次或以上
a	Rope skipping/跳绳	A	B	C	D	E
b	Rowing/ Canoeing/划艇	A	B	C	D	E
c	Silat / Karate / Taekwondo 马来武术/空手道/跆拳道	A	B	C	D	E
d	Chasing game/追逐游戏	A	B	C	D	E
e	Brisk walking/步行运动	A	B	C	D	E
f	Cycling/骑脚踏车	A	B	C	D	E
g	Jogging / Running/慢跑 / 赛跑	A	B	C	D	E
h	Aerobics/有氧体操	A	B	C	D	E
i	Swimming/游泳	A	B	C	D	E
j	Baseball/棒球	A	B	C	D	E
k	Dancing/跳舞	A	B	C	D	E
l	Rugby/橄榄球	A	B	C	D	E
m	Badminton/羽毛球	A	B	C	D	E
n	Hockey/曲棍球	A	B	C	D	E
o	Volleyball/排球	A	B	C	D	E
p	Basketball / Netball/篮球	A	B	C	D	E
q	Sepak takraw/藤球	A	B	C	D	E
r	Football / Futsal/足球	A	B	C	D	E
s	Ping pong/乒乓球	A	B	C	D	E

- C2** During physical education class in the last 7 days, how often are you in an active condition (playing, running, throwing, jumping)?
在过去的7天，在体育课活动期间，你是否非常活跃（玩耍，奔跑，投球，跳跃）？
- A I do not attend the physical education class/我不参与体育课
B Very rare/级少数
C Occasionally/偶尔(有时候会)
D Quite often/经常
E Always/常常
- C3** What do you usually do **during break time in the school** for the last 7 days?
在过去的7天，你都在**学校休息课**时做些什么？
- A Sitting down (chatting, reading, doing homework) /坐下(聊天，阅读，做功课)
B Standing or walking/站立或步行
C Running or playing for a short while/奔跑或偶尔玩耍
D Running and playing for a short while/奔跑和偶尔玩耍
E Running and playing all the time/奔跑和经常玩耍
- C4** What are the activities that you normally do **during lunch time** for the last 7 days (apart from eating)?
在过去的7天，除了坐下吃午餐外，你都在**吃午餐的时候**做些什么？
- A Sitting down (chatting, reading, doing homework)/坐下(聊天，阅读，做功课)
B Standing or walking/站立或步行
C Running or playing for a short while/奔跑或偶尔玩耍
D Running and playing for a short while/奔跑和适量的玩耍
E Running and playing all the time/奔跑和经常玩耍
- C5** In the last 7 days, how many days did you spend playing sports, dance or playing **actively immediately after school hours**?
在过去的7天，你有几天是**直接在放学后**运动，跳舞，或非常活跃的玩耍？
- A Never/没有
B 1 day/1天
C 2 or 3 days/2或3天
D 4 days/4天
E 5 days/5天
- C6** In the last 7 days, how many days did you play sports, dance or play **actively in the evening**?
在过去的7天，你有几天是在**下午时间**运动，跳舞，或非常活跃的玩耍？
- A Never/没有
B 1 day/1天
C 2 or 3 days/2或3天
D 4 or 5 days/4或5天
E 6 or 7 days/6或7天

- C7** How many times have you been involved with sport activities, dancing or engage in active games during last weekend?
在上个周末，你有多少次参与运动，跳舞，或活跃的课外活动？
- A Never/没有
 - B 1 time/1次
 - C 2 or 3 times/2或3次
 - D 4 or 5 times/4或5次
 - E 6 times or more/6次或以上
- C8** Which of the following statements describe you in the last 7 days?
以下哪项正是描述你在过去的7天的行为？
- A I use all or most of my spare time with a mild activity/
我用全部或大部分空闲的时间做些不劳累的活动
 - B I occasionally (1-2 times per week) do physical activity during my spare time (example: involve in sport activities, running, swimming, cycling, aerobic activity)/
在空闲的时候，我偶尔（每周1-2次）会参与课外活动（例：运动，赛跑，跳舞，游泳，骑脚踏车，有氧运动）
 - C I sometimes (3-4 times per week) do physical activity during my spare time(example: involve in sport activities, running, swimming, cycling, aerobic activity)/
在空闲的时候，我有时（每周3-4次）会参与课外活动（例：运动，赛跑，跳舞，游泳，骑脚踏车，有氧运动）
 - D I often (5-6times per week) do physical activity during my spare time (example: involve in sport activities, running, swimming, cycling, aerobic activity)/
在空闲的时候，我经常（每周5-6次）会参与课外活动（例：运动，赛跑，跳舞，游泳，骑脚踏车，有氧运动）
 - E I regularly (7times or more per week) do physical activity during my spare time (example: involve in sport activities, running, swimming, cycling, aerobic activity)/
在空闲的时候，我常常（每周7次或以上）会参与课外活动（例：运动，赛跑，跳舞，游泳，骑脚踏车，有氧运动）

C9 Highlight the frequency of your activity (such as sports, playing, dancing, or any other physical activity) for each day during the last one week.

上个星期的每一天，你有多少次参与课外活动（体育，玩耍，跳舞或其他课外活动）

Day/日期		No activity/ 没有活动	Occasionally (1-2 times)/ 偶尔 (1-2 次)	Sometimes (3-4 times) / 有时 (3-4 次)	Often (5-6 times/ 经常 (5-6 次)	Regularly (7 times or more)/ 常常 (7 次或以)
a	Monday/ 星期一	A	B	C	D	E
b	Tuesday/ 星期二	A	B	C	D	E
c	Wednesday/ 星期三	A	B	C	D	E
d	Thursday/ 星期四	A	B	C	D	E
e	Friday/ 星期五	A	B	C	D	E
f	Saturday/ 星期六	A	B	C	D	E
g	Sunday/ 星期日	A	B	C	D	E

- C10** For the past week, are you sick, or are there any things that prevent you from doing regular physical activity?
在上个星期, 你是否生病或因其他原因而导致你不能参与课外活动吗?
- A Yes/是
B No/不是
- C11** During **weekend**, do you watch television and/or use computer and/or play video games?
在**周末**, 你是否有看电视和/或使用电脑和/或玩电子游戏机 (example/如: PSP, Playstation, Gameboy and others)?
- A Yes/是
B No/不是
- C12** How long do you watch television and/or use computer and/or play video games during **weekend**?
在**周末**, 你花多少时间在看电视和/或使用电脑和/或玩电子游戏机?
- A Less than 1 hour per day/一天少过 1 小时
B 1 to 2 hours per day/一天 1 至 2 小时之间
C 2 to 3 hours per day/一天 2 至 3 小时之间
D 3 to 4 hours per day/一天 3 至 4 小时之间
E More than 4 hours per day/一天超过 4 小时
- C13** During **school day**, do you watch television and/or use computer and/or playing video games?
在**上学期间**, 你是否有看电视和/或使用电脑和/或玩电子游戏机(example/如: PSP, PlayStation, Gameboy and others)?
- A Yes/是
B No/不是
- C14** How long do you watch television and/or use computer and/or play video games on **school days**?
在**上学期间**, 你花多少时间在看电视和/或使用电脑和/或玩电子游戏机?
- A Less than 1 hour per day/一天少过 1 小时
B 1 to 2 hours per day/一天 1 至 2 小时之间
C 2 to 3 hours per day/一天 2 至 3 小时之间
D 3 to 4 hours per day/一天 3 至 4 小时之间
E More than 4 hours per day/一天超过 4 小时

MODULE D : PERCEPTION OF WEIGHT MANAGEMENT**D组：体重管理的自我观点****INSTRUCTION : Choose the answer and shade on the answer sheet provided.****指示：请在准备好的答案纸上划圈作答**

- D1** At the present time, you think you are:
目前，你觉得你：
- A Significant underweight/体重非常不足
 - B Underweight/体重不足
 - C Has appropriate body weight/拥有适当的体重
 - D Overweight/体重过重
 - E Obese/肥胖
- D2** What are you doing to your body weight?
你对你的体重做了些什么？
- A I am trying to reduce my body weight/我正在努力减轻自己的体重
 - B I am trying to increase my body weight/我正在努力增加自己的体重
 - C I am not doing anything to my body weight/我什么也没做
 - D I am maintaining my body weight/我正在维持自己的体重
- D3** If you intend to **lose body weight**, what are the main factor that motivate you to do so?/如果你想**减肥**，是什么主要因素驱使你这样做呢？
- A Health/健康
 - B Beauty/漂亮
 - C Increase self-confidence/提高自信
 - D To have more friends/结交更多朋友
 - E Does not intend to lose body weight/没有想过减肥
- D4** If you intend to **lose body weight**, what is the preferred option?
如果你想**减肥**，什么方法是你的首选？
- A Exercise/运动
 - B Reduce consumption of high fat foods/减少吃油腻的食物(Example/例子: fried food/煎炸食物)
 - C Reduce intake of sugary foods/减少吃甜食
 - D Increase intake of vegetables and fruits/多吃蔬菜和水果
 - E Skip main meals/不吃正餐 (breakfast/早餐, lunch/午餐, dinner/晚餐)
 - F Taking diet pills/ use slimming cream/吃减肥药/用减肥霜
 - G Fasting/禁食
 - H Get professional advise/征求专业服务
 - I Does not intend to lose body weight/没有想过减肥
- D5** If you intend to **increase body weight**, what are the main factor that motivate you to do so?
如果你想**增肥**，是什么主要因素驱使你这样做呢？
- A Healthy/健康
 - B Beauty/漂亮
 - C Increase self-confidence/提高自信
 - D To have more friends/结交更多朋友
 - E Does not intend to increase body weight/没有想过增肥
- D6** If you intend to **increase body weight**, what is the preferred option?
如果你想**增肥**，什么方法是你的首选？
- A Increase the quantity of food consumed/吃更多的食物
 - B Taking supplement (Additional foods such as milk, vitamin)/吃补品(如奶, 维生素补品)
 - C Take high-calorie foods/吃高卡路里的食物
 - D Others/其他
 - E Does not intend to increase body weight/没有想过增肥

MODULE E: SUPPLEMENT INTAKE**E 组：食用营养补剂****Instruction: Choose the answer and shade on the answer sheet provided****指示：请在准备好的答案纸上划黑作答**

- E1** Are you taking any vitamin supplement/ minerals?
 你有在食用维生素/矿物质的补剂吗？
 A Yes/有
 B No/没有
 (If No, please answer 'I DON'T TAKE SUPPLEMENT' at question E2, E3, danE4
 (如果没有，请在E2, E3 和 E4 回答没有食用补剂))
- E2** What type of vitamin supplement/ minerals that you usually take?
 你在食用什么维生素/矿物质补剂？
 A Multivitamin/多元维生素
 B Vitamin C/维生素 C
 C Iron supplement (Ferum)/铁质
 D Others/其他
 E I do not take supplement/没有食用补剂
- E3** What is the reason for you to take vitamin supplement/ minerals?
 是什么原因使你在食用维生素/矿物质补剂？
 A Prescribed by doctor/医生指示
 B Advised by parent/父母要求
 C Self-awareness/自我意识
 D Friend influence/朋友影响
 E Others/其他
 F I do not take supplement/没有食用补剂
- E4** How often do you take vitamin supplement / minerals?
 你如何食用该维生素/矿物质补剂？
 A Everyday/每天
 B 5-6 times per week/一星期 5 至 6 次
 C 3-4 times per week/一星期 3 至 4 次
 D 1-2 times per week/一星期 1 至 2 次
 E I do not take supplement/没有服用补剂
- E5** Are you taking any **food supplement**?
 你有在食用食物补剂吗？
 A Yes/有
 B No/没有
 (If NO, please answer 'I DON'T TAKE SUPPLEMENT' at question E6, E7, danE8)
 (如果没有，请在E6, E7 和 E8 回答没有食用补剂))

E6 What kind of food supplement that you usually take?
你在食用什么食物补助品？

- A Spirulina/螺旋藻
- B Fish oil/鱼油
- C Honey/蜜糖或蜜糖制品
- D Chicken essence/鸡精
- E Others/其他
- F I do not take supplement/没有食用补助品

E7 What is the reason for you to take food supplement?
是什么原因使你在食用食物补助品？

- A Prescribed by doctor/医生指示
- B Advised by parent/父母要求
- C Self-awareness/自我意识
- D Friend influence/朋友影响
- E Others/其他
- F I do not take supplement/没有服用补助品

E8 How often do you take food supplement?
你如何食用该维生素/矿物质补助品？

- A Everyday/每天
- B 5-6 times per week/一星期 5 至 6 次
- C 3-4 times per week/一星期 3 至 4 次
- D 1-2 times per week/一星期 1 至 2 次
- E I do not take supplement/没有服用补助品

MODULE F: NUTRITION AND FOOD LABELLING																			
F 组：食品标签（只限于中学生作答）																			
<i>Instruction: Choose the answer and shade on the answer sheet provided</i> <i>指示：请在准备好的答案纸上划黑作答</i>																			
F1	<p>Do you read food label when buying or receiving food/drink? 当你正在购买或接受食品/饮料的时候，你会否阅读食品标签？</p> <p>A. Yes, every time/每次都会</p> <p>B. Yes, sometimes/偶尔会</p> <p>C. No/不会</p> <p style="text-align: right;">} (Straight to question F3 and answer till question F10/ 请直接跳去回答问题 F3，并继续回答至 F10)</p> <p style="text-align: right;">(Please answer question F2 and question F5 till F8/ 请回答问题 F2，并直接跳去 F5 继续回答至 F8)</p>																		
F2	<p>If you do not read food labels, specify the reason? You may choose more than one answer 如果你没有阅读食品标签，请列明原因。你可以选择多个答案</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr> <th colspan="2">Reasons for not reading food labels/ 没有阅读食品标签的原因</th> </tr> <tr> <td style="width: 50px;">A</td> <td>Small printing font/字体太小</td> </tr> <tr> <td>B</td> <td>Do not understand food labels/不明白</td> </tr> <tr> <td>C</td> <td>Not interesting/不感兴趣</td> </tr> <tr> <td>D</td> <td>Do not know the importance/不懂其重要性</td> </tr> <tr> <td>E</td> <td>No time/没有时间</td> </tr> <tr> <td>F</td> <td>Already know the information/已经知道相关资料</td> </tr> </table>	Reasons for not reading food labels/ 没有阅读食品标签的原因		A	Small printing font/字体太小	B	Do not understand food labels/不明白	C	Not interesting/不感兴趣	D	Do not know the importance/不懂其重要性	E	No time/没有时间	F	Already know the information/已经知道相关资料				
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D	Do not know the importance/不懂其重要性																		
E	No time/没有时间																		
F	Already know the information/已经知道相关资料																		
F3	<p>What kind of information do you read from the food label? You may choose more than one answer. 你会从食物营养标签上阅读哪些营养资料？你可以选择多个答案</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr> <th colspan="2">Nutrition fact information/营养资料</th> </tr> <tr> <td style="width: 50px;">A</td> <td>Energy content/日能</td> </tr> <tr> <td>B</td> <td>Carbohydrate/sugar content/碳水化合物/糖含量</td> </tr> <tr> <td>C</td> <td>Fat content/脂肪含量</td> </tr> <tr> <td>D</td> <td>Protein content/蛋白质含量</td> </tr> <tr> <td>E</td> <td>Salt/ sodium content/钠含量</td> </tr> <tr> <td>F</td> <td>Vitamin content/维生素含量</td> </tr> <tr> <td>G</td> <td>Mineral content/矿物质含量</td> </tr> <tr> <td>H</td> <td>Fiber/纤维</td> </tr> </table>	Nutrition fact information/营养资料		A	Energy content/日能	B	Carbohydrate/sugar content/碳水化合物/糖含量	C	Fat content/脂肪含量	D	Protein content/蛋白质含量	E	Salt/ sodium content/钠含量	F	Vitamin content/维生素含量	G	Mineral content/矿物质含量	H	Fiber/纤维
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F	Vitamin content/维生素含量																		
G	Mineral content/矿物质含量																		
H	Fiber/纤维																		

F4 Based on the picture of drink sample below, what kind of information do you read?
You can choose more than one answer

根据以下饮品为例，你会阅读以下哪些资料？您可以选择多个答案



Type of Information/食品资料	
A	Expiry date/有限期
B	Dietary declaration/食品标签
C	Nutrition fact/营养资料
D	Halal logo/清真标志
E	List of Ingredients/成分
F	Storage instruction/存放指示

English/Chinese/Chinese

Based on nutrition fact on **Packed Drink XYZ** shown below, please read and state whether the statement is correct or wrong

根据以下**XYZ包装饮料**的食品说明。请阅读明白并确定下列陈述正确与否

Nutrition Facts for Drink XYZ/ XYZ 包装饮料食品说明		
Serving size: 食用分量: 250 ml / 毫升 Serving per box/每包装所含食用份量: 1		
	Every 100 ml/ 每 100 毫升	Every serving 250 ml/ 每食用份量 250 毫升
Energy/能量 (kcal/千卡)	56	140
Carbohydrate/碳水化合物 (g/克)	10.9	27.3
Total sugar/总糖量 (g/克)	10.6	26.5
Protein/蛋白质 (g/克)	0	0
Fat/脂肪 (g/克)	0	0

F5 If I drink 100ml of this drink, it provides 56 kcal of energy.
如果我喝下这100毫升的饮料，它将提供56千卡能量。

- A True/正确
- B False/不正确
- C Don't know.不知道

F6 If I drink 1 box of this packed drink, I obtain 26.5 gram of sugar.
如果我喝下这包饮料，就等于我摄取了26.5克糖。

- A True/正确
- B False/不正确
- C Don't know/不知道

Based on the energy content from the front part of label (shown below), please indicate whether the following statement is true or false.

根据以下前面的能量摄取标签(*front of pack labelling*), 请确定下列陈述正确与否

One serving/每食用份量
Contain/含有 250 ml/毫升



Base on/根据
2000 kcal/千卡


- F7** Energy for 2 serving of this food is 140 kcal
两份食用份量将提供140千卡的能量
- A True/正确
 - B False/不正确
 - C Don't know/不知道
- F8** If I drink one serve of this food, it provides 7% energy from 2000 calories
如果我喝了一份食用份量, 它将从 2000 千卡中提供 7% 的能量。
- A True/正确
 - B False/不正确
 - C Don't know/不知道

Product Ice Cream A
冰淇淋 A 产品

List of ingredients/成分:

Sugar, Olein/Palm kernel, Milk solids,
Glucose syrup, Cocoa powder.

糖, 精油/棕榈仁油, 乳固体, 葡萄糖浆,
可可粉



F9 What ingredient that is mostly used in this ice cream?
在这冰淇淋内, 什么成分是最高的?

- A. Milk solids/乳固体
- B. Glucose syrup/葡萄糖浆
- C. Sugar/糖
- D. Olein / Palm kernel oil/精油/棕榈仁油
- E. Cocoa powder/可可粉

F10 What ingredient that is least used in this ice cream?
在这冰淇淋内, 什么成分是最低的?

- A. Glucose syrup/葡萄糖浆
- B. Sugar/糖
- C. Olein/Palm kernel oil/精油/棕榈仁油
- D. Milk solids/乳固体
- E. Cocoa powder/可可粉

MODULE G : ANTHROPOMETRIC MEASUREMENT												
G组： 人体测量												
<i>Instruction: This section will be completed by the student in the answer sheets provided</i> 指示：在这环节，学生将在所准备的答案纸上作答												
G1	Anthropometry measurement date/测量日期: <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td> </td><td> </td></tr> <tr><td>Day/日期</td></tr> </table> <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td> </td><td> </td></tr> <tr><td>Month/月份</td></tr> </table> <table border="1" style="display: inline-table;"> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>Year/年份</td></tr> </table>			Day/日期			Month/月份					Year/年份
Day/日期												
Month/月份												
Year/年份												
G2	Body weight/体重											
G2a	Weight 1/体重1 <input type="text"/> <input type="text"/> <input type="text"/> : <input type="text"/> kg/公斤											
G2b	Weight 2/体重2 <input type="text"/> <input type="text"/> <input type="text"/> : <input type="text"/> kg/公斤											
	Refuse to be measured 不愿被测量 <input type="text"/>											
G3	Body height/身高											
G3a	Height 1/身高 1 <input type="text"/> <input type="text"/> <input type="text"/> : <input type="text"/> cm/厘米											
G3b	Height 2/身高 2 <input type="text"/> <input type="text"/> <input type="text"/> : <input type="text"/> cm/厘米											
	Refuse to be measured 不愿被测量 <input type="text"/>											



IKU
INSTITUT KESIHATAN UMUM
KEMENTERIAN KESIHATAN MALAYSIA
Jalan Bangsar
50590 Kuala Lumpur



Appendix 8: Consent Form

Parents Consent Form

Borang Persetujuan Ibu Bapa/Penjaga NHMS 2017

RISALAH MAKLUMAT IBU BAPA/ PENJAGA (RESPONDEN BAWAH 18 TAHUN)**1. Tajuk:**

Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) 2017

2. Nama Penyelidik dan Institusi:

- i. Dr. S Maria Binti Awaluddin, Institut Kesihatan Umum, Kementerian Kesihatan Malaysia
- ii. Puan Ruhaya Binti Salleh, Institut Kesihatan Umum, Kementerian Kesihatan Malaysia
- iii. Dr. Mohd Kamal Ariff Bin Abdul Ghani, Institut Kesihatan Umum, Kementerian Kesihatan Malaysia

3. Nama Penaja:

Kementerian Kesihatan Malaysia

4. Pengenalan:

Kementerian Kesihatan Malaysia sedang menjalankan Tinjauan Kebangsaan Kesihatan dan Morbiditi 2017 pada tahun ini. Terdapat dua fokus utama dalam kajian ini iaitu Tinjauan Kesihatan Remaja dan Tinjauan Pemakanan Remaja. Maklumat di bawah akan menjelaskan hal-hal berkenaan tinjauan tersebut untuk anda membenarkan anak anda menyertai tinjauan ini.

Adalah penting untuk anda memahami mengapa tinjauan ini dilakukan dan apa yang perlu anak anda lakukan. Sila ambil masa yang secukupnya untuk membaca dengan teliti penerangan yang diberi sebelum anda memberi persetujuan untuk anak anda menyertai tinjauan ini. Jika anda mempunyai sebarang kemusykilan ataupun memerlukan maklumat lanjut, anda boleh bertanya dengan mana-mana ahli kumpulan tinjauan ini.

Setelah anda memahami maklumat tinjauan ini dan memberi keizinan untuk anak anda mengambil bahagian, anda perlu menandatangani Borang Persetujuan Ibu Bapa/ Penjaga (**Salinan Ibu-Bapa/Penjaga & Salinan Penyelidik**) yang disertakan bersama-sama risalah ini. Tuan/Puan mempunyai masa selama tujuh (7) hari untuk membuat keputusan bagi penyertaan anak Tuan/Puan dalam kajian ini. Borang persetujuan yang telah ditandatangani akan dikumpul oleh pasukan penyelidik sebelum pengumpulan data dijalankan. Penyertaan anak anda dalam tinjauan ini adalah secara sukarela dan anak anda boleh menarik diri pada bila-bila masa. Anak anda boleh tidak menjawab mana-mana soalan atau menarik diri dari pemeriksaan yang disebutkan sekiranya tidak mahu. Keengganan anak anda untuk mengambil bahagian atau menarik diri tidak akan menjejaskan sebarang manfaat perubatan atau kesihatan yang sememangnya hak anak anda.

Tinjauan ini ditaja sepenuhnya oleh Kementerian Kesihatan Malaysia dan telah mendapat kelulusan Jawatankuasa Etika dan Penyelidikan Perubatan, Kementerian Kesihatan Malaysia.

5. Apakah tujuan tinjauan ini dilakukan?

Tujuan tinjauan ini dijalankan adalah untuk memperoleh maklumat berkenaan kesihatan dan faktor pelindung serta menilai status pemakanan, corak pengambilan makanan dan corak aktiviti fizikal dalam kalangan remaja berumur 10 hingga 17 tahun. Maklumat yang diperolehi ini akan dikaji dan dinilai bagi membantu penilaian keberkesanan strategi yang dilaksanakan di peringkat sekolah dan untuk meningkatkan kesihatan remaja.

6. Apakah yang perlu anak saya lalui/lakukan sekiranya bersetuju untuk menyertai tinjauan ini?

Memberi respon terhadap soalan-soalan kaji selidik yang perlu dijawab oleh anak anda dan juga pengambilan ukuran berat dan tinggi yang akan dilakukan oleh pasukan penyelidik.

7. Apakah tanggungjawab anak saya sewaktu menyertai tinjauan ini?

Adalah penting untuk anak anda menjawab kesemua soalan yang ditanya oleh ahli penyelidik dengan lengkap. Menyertai tinjauan ini tidak memerlukan anda mengeluarkan sebarang perbelanjaan.

8. Apakah risiko dan kesan-kesan sampingan menyertai tinjauan ini?

Tiada risiko terhadap anak anda sekiranya menyertai tinjauan ini memandangkan tiada kaedah yang invasif atau berbahaya digunakan.

9. Apakah manfaatnya anak saya menyertai tinjauan ini?

Tinjauan ini tidak memberikan sebarang saguhati atau kesan kesihatan secara langsung apabila anak anda menyertai tinjauan ini. Namun, segala maklumat yang diperolehi daripada tinjauan ini akan dapat membantu penggubal dasar untuk merancang dan menambahkan program sedia ada untuk golongan remaja di Malaysia.

10. Adakah maklumat perubatan anak saya akan dirahsiakan?

Segala maklumat anak anda yang diperolehi dalam tinjauan ini akan disimpan dan dikendalikan secara sulit, bersesuaian dengan peraturan-peraturan dan/atau undang-undang yang berkenaan. Hanya penyelidik, peninjau yang berkecualan, auditor, dan pihak berkuasa yang berkaitan kajian ini sahaja mempunyai akses kepada maklumat yang anak anda berikan. Sekiranya hasil tinjauan ini diterbitkan atau dibentangkan kepada orang ramai, identiti anak anda tidak akan didedahkan tanpa kebenaran anda terlebih dahulu.

11. Siapakah yang perlu saya hubungi sekiranya saya mempunyai sebarang pertanyaan?

Sekiranya anda mempunyai sebarang soalan mengenai tinjauan ini atau memerlukan keterangan lanjut, Tuan/Puan boleh hubungi penyelidik, Dr. S Maria Awaluddin, Puan Ruhaya Salleh dan Dr. Mohd Kamal Ariff Abdul Ghani di Institut Kesihatan Umum, Jalan Bangsar, Kuala Lumpur di talian 03-22979400 untuk penjelasan lebih lanjut.

Jika anda mempunyai sebarang pertanyaan berkaitan dengan hak-hak anak anda sebagai responden dalam tinjauan ini, sila hubungi Setiausaha, Jawatankuasa Etika & Penyelidikan Perubatan (MREC), Kementerian Kesihatan Malaysia di talian 03-22874032.

BORANG PERSETUJUAN IBU BAPA/ PENJAGA (Salinan Ibu Bapa/Penjaga)

Tajuk kajian : Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) 2017

Dengan menandatangani di bawah (Salinan Ibu Bapa/Penjaga dan Salinan Penyelidik), saya mengesahkan bahawa:

	Sila tandakan ✓ di dalam kotak
1. Saya telah diberi maklumat tentang tinjauan di atas dan saya telah membaca dan memahami segala maklumat yang diberikan di dalam risalah ini.	<input type="checkbox"/>
2. Saya mempunyai masa yang secukupnya untuk mempertimbangkan penyertaan anak saya dalam tinjauan ini dan telah diberi peluang untuk bertanyakan soalan dan semua soalan saya telah dijawab dengan memuaskan.	<input type="checkbox"/>
3. Saya faham bahawa penyertaan anak saya adalah secara sukarela dan boleh menarik diri daripada tinjauan ini pada bila-bila masa tanpa memberi sebarang sebab.	<input type="checkbox"/>
4. Saya memahami risiko dan manfaat dari tinjauan ini dan saya memberi keizinan secara sukarela untuk anak saya mengambil bahagian dalam tinjauan. Saya faham bahawa anak saya mesti mengikuti arahan yang berkaitan dengan penyertaannya dalam tinjauan ini.	<input type="checkbox"/>
5. Saya akan menerima satu salinan maklumat tinjauan/borang persetujuan ibu bapa/penjaga termaklum ini yang telah ditandatangani dan bertarikh.	<input type="checkbox"/>

Saya, _____ **memberi/tidak memberi keizinan*** untuk anak/jagaan saya bernama _____ dari kelas _____ mengambil bahagian di dalam Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) 2017 sepertimana yang telah dimaklumkan. (***Potong yang tidak berkenaan**)

(Tandatangan)
 Nama Ibubapa/Penjaga* : _____
 Nombor K/P : _____
 Tarikh : _____

BORANG PERSETUJUAN IBU BAPA/ PENJAGA (Salinan Penyelidik)**Tajuk kajian : Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) 2017**

Dengan menandatangani di bawah **(Salinan Ibu Bapa/ Penjaga dan Salinan Penyelidik)**, saya mengesahkan bahawa:

	Sila tandakan <input type="checkbox"/> di dalam kotak
1. Saya telah diberi maklumat tentang tinjauan di atas dan saya telah membaca dan memahami segala maklumat yang diberikan di dalam risalah ini.	<input type="checkbox"/>
2. Saya mempunyai masa yang secukupnya untuk mempertimbangkan penyertaan anak saya dalam tinjauan ini dan telah diberi peluang untuk bertanyakan soalan dan semua soalan saya telah dijawab dengan memuaskan.	<input type="checkbox"/>
3. Saya faham bahawa penyertaan anak saya adalah secara sukarela dan boleh menarik diri daripada tinjauan ini pada bila-bila masa tanpa memberi sebarang sebab.	<input type="checkbox"/>
4. Saya memahami risiko dan manfaat dari tinjauan ini dan saya memberi keizinan secara sukarela untuk anak saya mengambil bahagian dalam tinjauan. Saya faham bahawa anak saya mesti mengikuti arahan yang berkaitan dengan penyertaannya dalam tinjauan ini.	<input type="checkbox"/>
5. Saya akan menerima satu salinan maklumat tinjauan/borang persetujuan ibu bapa/penjaga termaklum ini yang telah ditandatangani dan bertarikh.	<input type="checkbox"/>

Saya, _____ **memberi/tidak memberi keizinan*** untuk anak/jagaan saya bernama _____ dari kelas _____ mengambil bahagian di dalam Tinjauan Kebangsaan Kesihatan dan Morbiditi 2017 sepertimana yang telah dimaklumkan. **(*Potong yang tidak berkenaan)**

(Tandatangan)

Nama Ibubapa/ Penjaga* :

Nombor K/P :

Tarikh :

Students Consent Form

Borang Persetujuan Responden (Bawah 18 Tahun) NHMS 2017

RISALAH MAKLUMAT RESPONDEN (BAWAH 18 TAHUN)

1. Tajuk:

Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) 2017

2. Nama Penyelidik Utama dan Institusi:

- i. Dr. S Maria Binti Awaluddin, Institut Kesihatan Umum, Kementerian Kesihatan Malaysia
- ii. Puan Ruhaya Binti Salleh, Institut Kesihatan Umum, Kementerian Kesihatan Malaysia
- iii. Dr. Mohd Kamal Ariff Bin Abdul Ghani, Institut Kesihatan Umum, Kementerian Kesihatan Malaysia

3. Nama Penaja:

Kementerian Kesihatan Malaysia

4. Pengenalan:

Kementerian Kesihatan Malaysia sedang menjalankan Tinjauan Kebangsaan Kesihatan dan Morbiditi 2017 pada tahun ini. Terdapat dua fokus utama dalam kajian ini iaitu Tinjauan Kesihatan Remaja dan Tinjauan Pemakanan Remaja. Maklumat di bawah akan menjelaskan hal-hal berkenaan tinjauan tersebut untuk persetujuan anda menyertai tinjauan ini.

Adalah penting untuk anda memahami mengapa tinjauan ini dilakukan dan apa yang perlu anda lakukan. Sila ambil masa yang secukupnya untuk membaca dengan teliti penerangan yang diberi sebelum anda bersetuju untuk menyertai tinjauan ini. Jika anda mempunyai sebarang kemusykilan ataupun memerlukan maklumat lanjut, anda boleh bertanya dengan mana-mana ahli kumpulan tinjauan ini.

Setelah anda memahami maklumat tinjauan ini dan diberi keizinan oleh Ibu Bapa/Penjaga untuk anda mengambil bahagian, anda perlu menandatangani Borang Persetujuan Responden (**Salinan Responden & Salinan Penyelidik**) yang disertakan bersama-sama risalah ini. Anda mempunyai masa selama tujuh (7) hari untuk membuat keputusan bagi penyertaan dalam kajian ini. Borang persetujuan yang telah ditandatangani akan dikumpul oleh pasukan penyelidik sebelum pengumpulan data dijalankan. Penyertaan anda dalam tinjauan ini adalah secara sukarela dan anda boleh menarik diri pada bila-bila masa. Anda boleh tidak menjawab mana-mana soalan atau menarik diri dari pemeriksaan yang disebutkan sekiranya tidak mahu. Keengganan anda untuk mengambil bahagian atau menarik diri tidak akan menjejaskan sebarang manfaat perubatan atau kesihatan yang sememangnya hak anda.

Tinjauan ini ditaja sepenuhnya oleh Kementerian Kesihatan Malaysia dan telah mendapat kelulusan Jawatankuasa Etika dan Penyelidikan Perubatan, Kementerian Kesihatan Malaysia.

5. Apakah tujuan tinjauan ini dilakukan?

Tujuan tinjauan ini dijalankan adalah untuk memperoleh maklumat berkenaan kesihatan dan faktor pelindung serta menilai status pemakanan, corak pengambilan makanan dan corak aktiviti fizikal dalam kalangan remaja berumur 10 hingga 17 tahun. Maklumat yang diperolehi ini akan dikaji dan dinilai bagi membantu penilaian keberkesanan strategi yang dilaksanakan di peringkat sekolah dan untuk meningkatkan kesihatan remaja.

6. Apakah yang perlu saya lalui/lakukan sekiranya bersetuju untuk menyertai tinjauan ini?

Memberi respon terhadap soalan-soalan kaji selidik yang perlu dijawab oleh anda dan juga pengambilan ukuran berat dan tinggi yang akan dilakukan oleh pasukan penyelidik.

7. Apakah tanggungjawab saya sewaktu menyertai tinjauan ini?

Adalah penting untuk anda menjawab kesemua soalan yang ditanya oleh ahli penyelidik dengan lengkap. Menyertai tinjauan ini tidak memerlukan anda mengeluarkan sebarang perbelanjaan.

8. Apakah risiko dan kesan-kesan sampingan menyertai tinjauan ini?

Tiada risiko terhadap anda sekiranya menyertai tinjauan ini memandangkan tiada kaedah yang invasif atau merbahaya digunakan.

9. Apakah manfaatnya saya menyertai tinjauan ini?

Tinjauan ini tidak memberikan sebarang saguhati atau kesan kesihatan secara langsung apabila anda menyertai tinjauan ini. Namu, segala maklumat yang diperolehi daripada tinjauan ini akan dapat membantu penggubal dasar untuk merancang dan menambahbaik program sedia ada untuk golongan remaja di Malaysia.

10. Adakah maklumat saya akan dirahsiakan?

Segala maklumat anda yang diperolehi dalam tinjauan ini akan disimpan dan dikendalikan secara sulit, bersesuaian dengan peraturan-peraturan dan/ atau undang-undang yang berkenaan. Hanya penyelidik, peninjau yang berkeelayakan, auditor, dan pihak berkuasa yang berkaitan kajian ini sahaja mempunyai akses kepada maklumat yang anda berikan. Sekiranya hasil tinjauan ini diterbitkan atau dibentangkan kepada orang ramai, identiti anda tidak akan didedahkan tanpa kebenaran anda terlebih dahulu.

11. Siapakah yang perlu saya hubungi sekiranya saya mempunyai sebarang pertanyaan?

Sekiranya anda mempunyai sebarang soalan mengenai tinjauan ini atau memerlukan keterangan lanjut, anda boleh hubungi penyelidik, Dr. S Maria Awaluddin, Puan Ruhaya Salleh dan Dr. Mohd Kamal Ariff Abdul Ghani di Institut Kesihatan Umum, Jalan Bangsar, Kuala Lumpur di talian 03-22979400 untuk penjelasan lebih lanjut.

Jika anda mempunyai sebarang pertanyaan berkaitan dengan hak-hak anda sebagai responden dalam tinjauan ini, sila hubungi Setiausaha, Jawatankuasa Etika & Penyelidikan Perubatan (MREC), Kementerian Kesihatan Malaysia di talian 03-22874032.

BORANG PERSETUJUAN RESPONDEN BAWAH 18 TAHUN (Untuk Salinan Responden)

Tajuk kajian: Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) 2017

Dengan menandatangani di bawah (Salinan Responden dan Salinan Penyelidik), saya mengesahkan bahawa:

	Sila tandakan ✓ di dalam kotak
1. Saya telah diberi maklumat tentang tinjauan di atas secara lisan dan bertulis dan saya telah membaca dan memahami segala maklumat yang diberikan di dalam risalah ini.	<input type="checkbox"/>
2. Saya mempunyai masa yang secukupnya untuk mempertimbangkan penyertaan saya dalam tinjauan ini dan telah diberi peluang untuk bertanyakan soalan dan semua soalan saya telah dijawab dengan memuaskan.	<input type="checkbox"/>
3. Saya faham bahawa penyertaan saya adalah secara sukarela dan boleh menarik diri daripada tinjauan ini pada bila-bila masa tanpa memberi sebarang sebab.	<input type="checkbox"/>
4. Saya memahami risiko dan manfaat dari tinjauan ini dan saya memberi keizinan secara sukarela untuk mengambil bahagian dalam tinjauan. Saya faham bahawa saya mesti mengikuti arahan yang berkaitan dengan penyertaan saya dalam tinjauan ini.	<input type="checkbox"/>
5. Saya faham bahawa penyelidik, peninjau yang berkeelayakan, auditor, dan pihak kuasa yang berkaitan mempunyai akses kepada maklumat yang saya berikan untuk memastikan maklumat tinjauan dicatat dengan betul. Saya faham segala maklumat peribadi dan data tinjauan ini akan dirahsiakan.	<input type="checkbox"/>
6. Saya akan menerima satu salinan maklumat tinjauan/borang persetujuan ini yang telah ditandatangani dan bertarikh.	<input type="checkbox"/>

Responden :
 Tandatangan :
 Nama :
 Nombor K/P :
 Tarikh :

Penyelidik:
 Tandatangan :
 Nama :
 Nombor K/P :
 Tarikh :

Borang Perseetujuan Responden (Bawah 18 Tahun) NHMS 2017

BORANG PERSETUJUAN RESPONDEN BAWAH 18 TAHUN (Untuk Salinan Penyelidik)

Tajuk kajian: Tinjauan Kebangsaan Kesihatan dan Morbiditi (NHMS) 2017

Dengan menandatangani di bawah (**Salinan Responden dan Salinan Penyelidik**), saya mengesahkan bahawa:

	Sila tandakan <input type="checkbox"/> di dalam kotak
1. Saya telah diberi maklumat tentang tinjauan di atas secara lisan dan bertulis dan saya telah membaca dan memahami segala maklumat yang diberikan di dalam risalah ini.	<input type="checkbox"/>
2. Saya mempunyai masa yang secukupnya untuk mempertimbangkan penyertaan saya dalam tinjauan ini dan telah diberi peluang untuk bertanyakan soalan dan semua soalan saya telah dijawab dengan memuaskan.	<input type="checkbox"/>
3. Saya faham bahawa penyertaan saya adalah secara sukarela dan boleh menarik diri daripada tinjauan ini pada bila-bila masa tanpa memberi sebarang sebab.	<input type="checkbox"/>
4. Saya memahami risiko dan manfaat dari tinjauan ini dan saya memberi keizinan secara sukarela untuk mengambil bahagian dalam tinjauan. Saya faham bahawa saya mesti mengikuti arahan yang berkaitan dengan penyertaan saya dalam tinjauan ini.	<input type="checkbox"/>
5. Saya faham bahawa penyelidik, peninjau yang berkecualan, auditor, dan pihak kuasa yang berkaitan mempunyai akses kepada maklumat yang saya berikan untuk memastikan maklumat tinjauan dicatat dengan betul. Saya faham segala maklumat peribadi dan data tinjauan ini akan dirahsiakan.	<input type="checkbox"/>
6. Saya akan menerima satu salinan maklumat tinjauan/borang persetujuan ini yang telah ditandatangani dan bertarikh.	<input type="checkbox"/>

Responden :

Tandatangan :
 Nama :
 Nombor K/P :
 Tarikh :

Penyelidik:

Tandatangan :
 Nama :
 Nombor K/P :
 Tarikh :

Appendix 9: List of Abbreviations

FFQ	Food Frequency Questionnaire
PE	Physical Education
PA	Physical Activity
BAZ	BMI-for-Age
HAZ	Height-for-Age
MDG	Malaysian Dietary Guidelines
RNI	Recommended Nutrient Intake
Kcal	Kilocalorie
NHMS	National Health and Morbidity Survey
CCT	Central Coordinating Team
PSP	Pegawai Sains Pemakanan
RA	Research Assistant
RO	Research Officer
g	gram
mg	milligram
µg	microgram
IU	International Unit
ANS	Adolescent Nutrition Survey
MSNS	Malaysian School-based Nutrition Survey
ID	Identity Detail
DPQ	Department of Proposal and Quality
DR	Dietary recall
QC	Quality Control
CI	Confidence Interval
PAQ-C	Physical Activity Questionnaire for Older Children
PAL	Physical Activity Level
cm	Centimeter
SD	Standard Deviation
MOH	Ministry of Health
IOM	Institute of Medicine
AL	Adequate intake
UL	Upper level intake
Tsp	tea spoon
Tbsp	table spoon



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ISBN 978-983-2387-64-0



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