

Food Consumption Survey in Lao PDR 2016-2017



ສະຖາບັນສາທາລະນະສຸກສາດ ແລະ ການແພດເຂດຮ້ອນ
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I. Introduction and Rationale

Lao People's Democratic Republic (Lao PDR) continues to develop rapidly in terms of economic indicators, and has transformed itself into a lower middle income country in recent years. About 23.2% of the total population of 6.4 million (Census 2015.) live below the national poverty line and 22.7% live with under USD1.90 (2011PPP) a day (World Bank, 2016). There are 49 ethnic groups in Lao PDR comprises of 45% of its population living scattered in rural areas (67.1 %) and 75% of its population is working in the agricultural sector, while only 19% agriculture value added of GDP.

Eventhough, recently, Lao PDR made some progresses on the Millennium Development Goals, as reducing hunger, halving poverty, improving health and education outcomes, and improving life expectancy. The stunting rate of children under five fell from 44 per cent in 2000 to 35.6 percent in 2016, the proportion of underweight children also declined in 10,9% (from 36.4 in 2000 to 25.5 in 2016) (LCAAS, 2016).

As Lao PDR is a member of the International Network of Food Data Systems (INFOODS), during 2012 to 2014 of the Sustainable Micronutrient Interventions to Control Deficiencies and Improve Nutritional Status and General Health in Asia (SMILING project), the food composition database or table was prepared. The database comprises of 140 food items, with less than half of them are specific local Lao dishes. Most of the food items in the database were compiled from other sources such as ASEAN Food Composition Table (2000), Thai Food Composition Table (2007), The Concise New Zealand Food Composition Tables (8th edition 2009), etc. Even if the database has a quality control, the quantity of food item does not cover the practical consumption behaviour of Lao people. Thus, the study for development of Lao food composition table, especially for mixed dishes and to investigate of food consumption patterns became necessary in order to identify food diets status in parts of the population. These scientific data will be used to evaluate interim of the food consumption, dietary patterns and nutrition.

In addition, the role of dietary exposure assessments has grown significantly in light of the World Trade Organization (WTO) "Agreement on the Application of Sanitary and Phytosanitary Measures" (SPS Agreement). The SPS Agreement further requires that sanitary and phytosanitary measures should be based on sound scientific risk assessment. The combination of food consumption data with data on the concentration of chemicals in

food is an important step in food safety risk assessment plans developed by competent authorities in charge of Food Safety. Therefore, it is essential for countries such as Laos to update and generate food consumption data which are required for estimating the exposure of chemicals into the body. The resulting dietary exposure estimate (acute or chronic exposure) is then could compare with the relevant toxicological or nutritional reference value for the food chemical of concern.

Between 2011 and 2012, the European Commission - among other donors - supported Laos to meet SPS obligations and gain access to the World Trade Organization by Building SPS Risk Evaluation Capacity in the country. In complement, a project (P106165) managed by the World Bank achieved the creation of a Risk Evaluation Group (REG) on animal and plant health and food safety responsible for identifying priorities in risk evaluation. Further support was still needed to establish accurate dietary exposure assessment limits and conduct national food consumption survey on food safety and nutrition. Under the EU Better Training for Safer Food (BTSF) initiative, a series of Sustained Training Mission (STMs) was organised to develop Survey Tools and to implement Pilot Survey in order to support not only food safety improvement but also nutrition improvement in Laos.

Food consumption surveys can ascertain the characteristics of groups that might be at risk because of inadequate or excessive intake of nutrients. They indicate the dietary changes needed in order to attain the dietary goals for improved health and well-being. Surveys can detect the extent of these nutritional deficiencies. It is important that comprehensive food consumption and nutrition surveys are carried out throughout the region. These will generate valuable data on the adequacy of food, energy and nutrient intakes and consumption patterns of individuals. This information will enable policy makers to understand, quantify and specify the causes of the health and nutrition problems in Lao people and as a result guide the design and implementation of specific food and nutrition related intervention programmes.

In addition, the data will provide the nutrient database for single food items and also the standard recipes or the recipes which popular among Laos. Those recipes can provide more detail the content on each ingredient (single food item) which can apply by related factors upon the utilized method.

Moreover, the data will be data source for dietary exposure assessments (i.e. food consumption data x chemical concentration data) used by the national risk evaluation

groups and the ASEAN Risk Assessment Centre (ARAC) and comparison with health reference values (toxicology or nutrition).

In addition, to order to support the integration and harmonisation of the individual food consumption data by the ASEAN Member States, the FAO/WHO CIFOCS and FAO/WHO GIFT platforms will be used.

II. Objective:

The main goal of this Food consumption survey is to seek information on how to increase availability of individual food consumption data in Lao PDR with the aim to improve the quality of nutritional assessments and dietary exposure assessments for chemicals and biological agents in food by Assessing dietary intake using 24-hour dietary recall and Determination of the type of foods consumed of people in Lao PDR.

III. Methodology:

Study Setting:

The food consumption survey in Lao PDR 2016 was designed as a cross-sectional study and collected data to provide separate estimate from three regions of the country.

The sampling method: Based on the wide diversity of the country regions in terms of climate and agriculture, three zones represented 3 regions with two provinces in each zone (region) namely *Oudomxay and Luangprabang* in Northern lowland, *Vientiane Capital and Bolikhamxay* in Central-southern highland, *Savannakhet and Champasack* represent Mekong corridor were included in the survey (see figure 1). Multistage stratified cluster sampling was used to select district, village, and households to be visited, Two districts in each province and two villages in each district were included for the survey.

Data collection period: To get the best data quality as much as possible, two rounds both rainy and dry season of dietary recall for each population group were conducted.

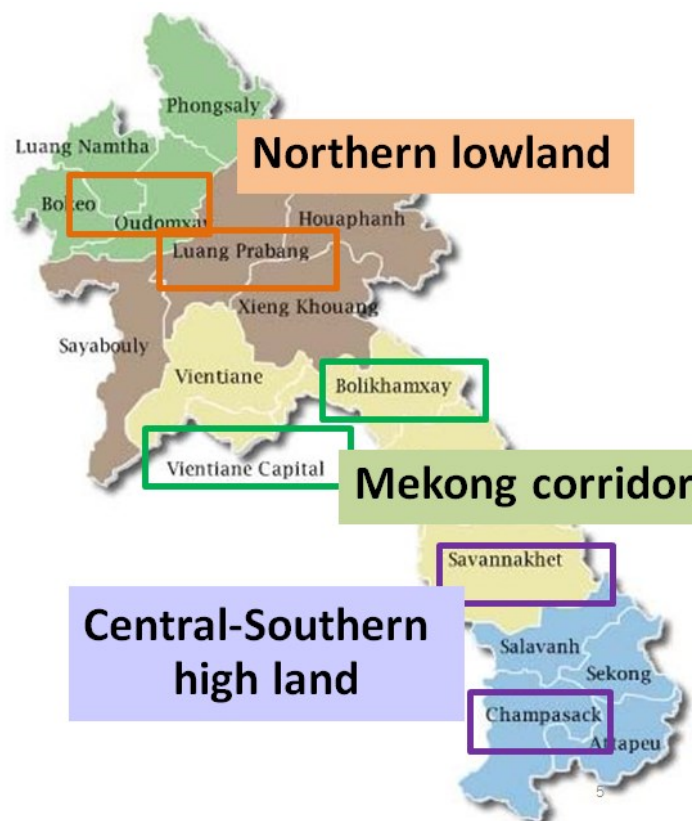


Figure 1: Survey sites

Target population:

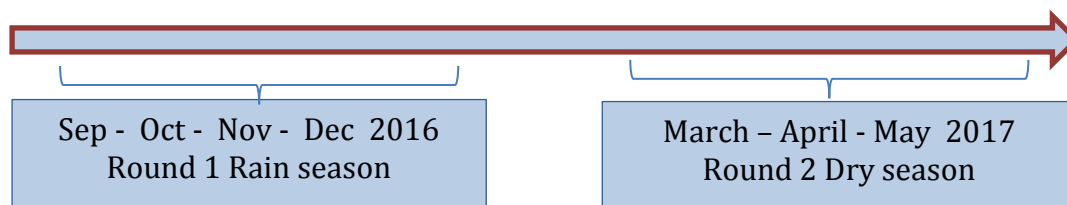
A total of 4 different target groups of population were recruited, included group of 1) children under five divide into 3 sub groups as infant (3 to 11 months), toddlers (12 to 35 months), and pre-school children (3 to 5.9 years old); 2) adolescent; 3) all adult population 15 to 49.9 years old with pay more attention to women of reproductive age who have special nutrition needs such as pregnant and lactating women; and 4) older adult 50 years old and over. The sample for each age group is stratified by sex represents equally females and males as shows in table 1.

Table 1: Target population for the national survey

Population group		Region			Total
		Mekong Corridor	Central-Southern highland	Northern Lowland	
Infants: 3–11 months	Male	48	48	48	144
	Female	48	48	48	144
Toddlers: 12–36 months	Male	48	48	48	144
	Female	48	48	48	144
Children: 3–5.9 yrs	Male	48	48	48	144
	Female	48	48	48	144
Adolescents: 6-14.9 yrs	Male	48	48	48	144
	Female	48	48	48	144
Adults: 15–49.9 years	Male	48	48	48	144
	Female	48	48	48	144
Older adults: ≥ 50 years	Male	48	48	48	144
	Female	48	48	48	144
Pregnant women	Female	48	48	48	144
Lactating women	Female	48	48	48	144
	Sub-total	672	672	672	
	Total		2016		

Time line and seasonality

The survey was carried out in 2 rounds based on the seasons. In each round covering a 3 month-period.



The survey was carried out during 25 September 2016 to 20 May 2017 with two rounds based on the two seasonality. The data collection was performed during 25 September to 15 December 2016 for the first round in rainy season, with a total of 1,021 individual in six provinces. For the second round survey (Dry season) were started during 13 March to 20 May 2017 with a total of 1,024 individual in six provinces.

Training on field work

Training was provided to the team of data collectors to give insight and understanding about the survey and on how to record the daily food intake. The training also covered the understanding in the food dietary record based on seven eating occasions, namely, breakfast, lunch, dinner, and four snacks includes before breakfast, midmorning, afternoon, and late-evening snacks). In addition, type (including brand names) and amounts of food consumed need to be collected through an open entry format . For the verification and estimation of the size of individual food portions, the participants were instructed with the help of photo food book and household utensils to enhance the accuracy of portion size estimation. The importance of maintaining regular diets and recording all food and drink consumed was emphasized. A pilot survey on 19-23 September 2016 was organized to test the survey tools . The enumerators were set into two teams in each team including 8 enumerators and 1 supervisor. Each enumerators conducted the 4 to 5 cases interviews per day.

Tools development:

A tool set for the survey was improved from the previous work developed under the EU Better Training for Safer Food programme (BTSF) support as the pilot survey in 2014. Database and local mix dishes reference were used to develop food consumption pattern of people in Lao PDR i.e. type of foods consumed (food group). The tool set is composed of:

Food Code Book:

The Food Code Book was developed based on the Institute of Nutrition Mahidol University Caclulation (INMUCAL) database. The tool is used for coding the food items in the 24-hr dietary recall questionnaire at the fieldwork. Then, these food codes are entered to the INMUCAL software.

The Food Photo Book:

The Food Photo Book was also developed based on the 22 food groups of INMUCAL database. The Food Photo Book of Lao PDR is now available for 18 food groups. This tool is used for the estimation of food portion size, besides the measuring tools. Some improvements were made to the existing photo book including a revision of the scale of food photo, adding food photo for new target group (children under 6 years old) such as various types of milk powder, adding some popular local food items such as desserts, insects, sugary drinks, and using different sizes of drinking cup.

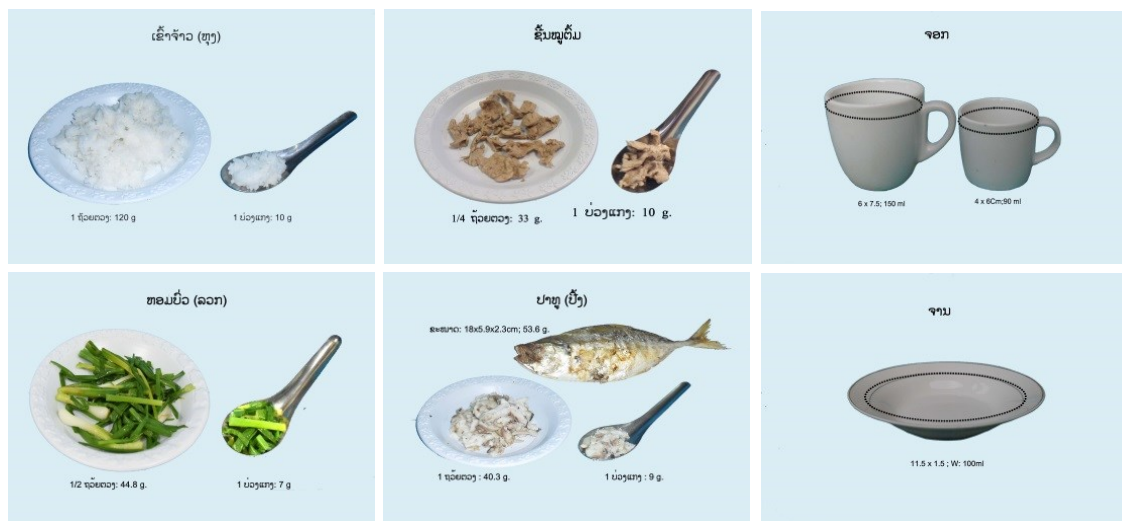


Figure 2: example of the food photo book

Local Mixed Dishes Book:

The Local Mixed Dishes Book was developed based on the local popular menus in Lao PDR from the Lao food composition table (SMILING project, 2014 and the pilot survey in 2014). The tool includes 76 menus (57 from Lao food composition table 2014 and 19 menus from the pilot study 2014). Each menu consists of menu's name, ingredients, INMUCAL food code, and cooking method. The Local Mixed Dishes Book helps the interviewers to guide some ingredients from interviewees who cannot remember the food ingredients consumed.

Laos Ingredients Name	English Ingredients Name	INMUCAL Code	Method
1 ໄຂ່ໄກ່ຕົ້ມ	Hen egg whole, boiled	08032	RE
2 ໄຂ່ຢ່ຽວມ້າຕົ້ມ	Duck egg, preserved	08008	RE
3 ໝູ່ຍີ່	Pork sausage, steamed/Moo-yor(Thai)	06058	RE
4 ບຸ້ອິດ	Fish surimi	07178	RE
5 ຜັກສະລັດສິດ	Lettuce, fresh	04076	RA
6 ໜາກແຕງສິດ	Cucumber large, fresh	04032	RA
7 ໜາກເລັ່ນໃຫຍ່	Tomato, fresh	04121	RA
8 ໜາກເລັ່ນນ້ອຍ	Tomato, fresh	04122	RA
9 ຜັກຫອມບົ່ວສິດ	Coriander, fresh	04083	RA
10 ຜັກຫອມບົ່ວສິດ	Spring Onion, fresh	04133	RA
11 ຜັກເຊັ່ນນາລີ	Ceraly, fresh	04252	RA
12 ມາໄຢເນັດ	Mayonnaise	10016	RE
13 ນ້ຳໝາກນາວ	Lemon, juice, fresh	04195	RA
14 ນ້ຳຕານ	Sugar, white	11001	RA
15 ເກືອ	Sea Salt table big granule	12001	RA
16 ແປ້ງນິວ	Monosodium glutamate	12080	RA

Laos Ingredients Name	English Ingredients Name	INMUCAL Code	Method
1 ໄຂ່ໄກ່ຕົ້ມ	Hen egg whole, boiled	08032	RE
2 ຊີ້ນໝູສາມຊີ້ນ	Pork belly, boiled (Fat 38.2%)	06126	RE
3 ຜັກສະລັດສິດ	Lettuce, fresh	04076	RA
4 ໜາກແຕງສິດ	Cucumber large, fresh	04032	RA
5 ໜາກເລັ່ນໃຫຍ່	Tomato, fresh	04121	RA
6 ຜັກຫອມບົ່ວສິດ	Coriander, fresh	04083	RA
7 ຜັກຫອມບົ່ວສິດ	Spring Onion, fresh	04133	RA
8 ຜັກເຊັ່ນນາລີ	Ceraly, fresh	04252	RA
9 ມາໄຢເນັດ	Mayonnaise	10016	RE
10 ນ້ຳໝາກນາວ	Lemon, juice, fresh	04195	RA
11 ນ້ຳຕານ	Sugar, white	11001	RA
12 ເກືອ	Sea Salt table big granule	12001	RA
13 ແປ້ງນິວ	Monosodium glutamate	12080	RA

Figure 3: example of local mixed dishes book

Local Dish Database:

The Local Dish Database was developed based on the Lao food composition table 2012,. The data consisted of menus' name, ingredients in each menu, and the quantity of ingredients. The quantity of ingredients was an average of individual consumption. Then, all ingredients were calculated in 100 grams in each unit of measurement; teaspoon, tablespoon, and cup. The Local Dish Database is used to calculate the quantity of ingredients, which cannot be interviewed from interviewees.

24-hour-dietary recall and background characteristic of individual questionnaire

The 24-hour dietary recall questionnaire and socio-demographic data was adopted from the previous pilot survey in 2014 by adding sub-groups of children under five such as 3-11 months, 12-36 months, and 37 to 59 months. In addition, a set of questionnaire related to alcohol and tobacco consumption were added.

The figure shows two questionnaire forms. The left form is titled 'ແບບຮ່ວມບັນທຶກການກິນອາຫານໃນ 24 ຊົ່ວໂມງຍ້ອນຫລັງ' (24-hour dietary recall questionnaire). It includes fields for name, ID, sex, age, and occupation, followed by a table for recording food intake. The right form is titled 'SOCIO-DEMOGRAPHIC QUESTIONNAIRE' and contains demographic questions such as gender, marital status, education, and household size.

Figure 4: example of 24 hour dietary recall and social demographic questionnaire

Data Collection

Face to face interview using standard questionnaire was applied for recording data. The interviews were conducted by trained and experienced interviewers with background in health and nutrition. A short training was organized before starting the survey to make sure that all enumerators use the same protocol. The technical assistance was provided by the team from Institute of Nutrition, Mahidol University to supervise in data reading and data interpretation.

Sub-sample: Data collection for sub-sample is conducted in each province. The sub-sample size to re-interview is 18 per province. The re-interview phase was done after 2 days following the 1st interview. Random choice was used for sub-sample selection.

Data management

Database: two databases were created to record completed collected data from the field, one is for recording socio-demographic data from paper forms using Epidata software version 12 for data entry and second database using INMUCAL software version 3 for entering 24-hour-dietary recall questionnaire forms.

Data analysis:

All entered data were exported into Excel and SPSS statistical package version 19 for further analysis. Data were expressed in Mean \pm SD of food intake in grams per person per day and Mean \pm SD of food intake in grams per kilogram of body weight per day (g / KgBW / day) per eater only. the percentile analyzed for the 5th, 90th, and 95th in per capita and 97.5 eater only.

IV. Results

4.1 Sites and size of target population

The table 2 summarizes the number of respondents per province/ district and village and table 3 indicate the characteristics of people enrolled in this survey stratified by region.

Table 2: summarizes the number of respondents per province/ district and village

Province	District	Village (N)	Rain season		Village (N)	Dry season	
			Day1	Day2		Day1	Day2
Vientiane Capital	Hatxaiphone	Thapha	45	18	Dongphonehea	43	18
		Hatxaikhao	41		Nong Heo	42	
	Pakngeum	Phao	43		Natham	42	
Oudomxay	Hun	Maknaodong	41		Nafai	47	
		Langjing	42	18	Phonsavang	42	
	Beng	Nahom	43		Fan	45	
		Xienglear	34		Namat	42	19
Luangprabang	Nambak	Samkang	53		Yor	43	
		Makphout	45		Phonexiang	46	
	PakOu	Pakmong	44		Phonexay	44	
		Samsanouk	43	19	Hauylo	42	18
		Hatmat	42		Hatpang	42	
Bolikhambxay	Thabok	Palai	42		Saifai	42	21
		Nakham	42		Thauyai	42	
	Pakkading	Phonsy	42		Namkou	42	
		Sensamlan	42		Hatsaikham	42	
Champasack	Champasack	Nongthon	42		Nongsa	42	19
		Nasavang	42	17	Meuy	42	
	Paksong	Vatluang	42		Nonglea	42	
		Lak 40	42		Sepien	42	
Savannakhet	Atsaphang-thong	Donepalai	42		Saphankeo	42	
		Huameuang	42	18	Pongdong	42	
	Songkhone	Lahakog	43		Nongnokhiean	42	18
		Thakhamlien	42		Kogsaatt	42	

4.2 Information on Social-demographic characteristics of the individual

A total of 2,045 individual were recruited and successfully completed the interview, The respondents number were calculated for the six different age groups with a focus to two special subgroups pregnant women and lactating women. Social-demographic information include sex, age, marital status, religion, education and ethno-linguistic group of the household. The result shows that the majority of respondents belong to Buddhist religion, thirty seven per cent are married and 38.6% have at least primary school attendance and only 3% have any higher education. One third of the respondents are farmers. More than half (68.0%) of households using bottled water as main source of drinking water and 53.9% having brick and concrete dwelling with 4,5% without toilet in their house (table 3).

Table 3: the general characteristics of respondents stratified by region

Characteristics	Region			Total n(%)
	Northern Lowland n(%)	Mekong Corridor n(%)	Central and Southern n(%)	
Sex				
Male	287 (41.5)	286 (42.1)	297 (44.1)	870(42.5)
Female	405 (58.5)	394 (57.9)	376 (55.9)	1175(57.5)
Age group				
3-11 months	94(13.6)	92(13.5)	88(13.1)	274(13.4)
12-36 months	93(13.4)	94(13.8)	97(14.4)	284(13.9)
3-5.9 years	101(14.6)	100(14.7)	99(14.7)	300(14.7)
6-14.9 years	100(14.5)	100(14.7)	99(14.6)	298(14.6)
15-49.9 years	112(16.2)	95(14.0)	100(14.9)	307(15.0)
>50 years	95(13.7)	104(15.3)	97(14.4)	296(14.5)
pregnant women	46(6.6)	48(7.1)	46(6.8)	140(6.8)
Lactating women	51(7.4)	47(6.9)	48(7.1)	146(7.1)
Religion				
Buddhist	442(63.9)	676(99.4)	651(96.7)	1769(86.5)
Christ	0(0)	1(0.1)	8(1.2)	9(0.4)
Others	250(36.1)	3(0.4)	14(2.1)	267(13.1)
Marital status				
Single	61(8.8)	37(5.4)	41(6.1)	139(6.8)
Married	260(37.6)	254(37.4)	252(37.4)	766(37.5)
Divorce	2(0.3)	5(0.7)	9(1.3)	16(0.8)
Withdraw	17(2.5)	18(2.6)	14(2.1)	49(2.4)
Others (Children)	352(50.9)	366(53.8)	357(53.0)	1075(52.6)
Education				
No school	243(35.1)	226(33.2)	279(41.5)	748(36.5)
Primary school	267(38.6)	276(40.6)	247(36.7)	790(38.6)
Secondary school	162(23.4)	155(22.8)	124(18.4)	441(21.5)
Diploma	15(2.2)	17(2.5)	18(2.7)	50(2.4)
Bachelor degree or higher	5(0.7)	6(0.9)	5(0.7)	16(0.7)

Occupation				
Not work	40(5.8)	63(9.3)	27(4.0)	130(6.3)
Work as employee	7(1.0)	10(1.5)	4(0.6)	21(1.0)
Merchant	22(3.2)	30(4.4)	16(2.4)	68(3.3)
Agriculturist / Gardener / Farmer	205(29.6)	150(22.1)	212(31.5)	567(27.7)
Government officer	19(2.7)	24(3.5)	16(2.4)	59(2.8)
Employee in private sector	0(0)	2(0.3)	4(0.6)	6(0.2)
Business owner	9(1.3)	8(1.2)	7(1.0)	24(1.1)
Other	390(56.4)	393(57.8)	387(57.5)	1170(57.2)
Type of dwelling				
Brick, concrete	373(53.9)	513(75.4)	224(33.3)	110(54.3)
Tradition	20(2.9)	6(0.9)	2(0.3)	28(1.4)
Tin	0(0)	2(0.3)	1(0.1)	3(0.1)
Plank, wood	266(38.4)	113(16.6)	423(62.9)	802(39.2)
Other	33(4.3)	46(6.8)	23(3.4)	102(5.0)
Type of Sanitation				
Flush	7(7.0)	89(13.1)	15(2.2)	111(5.4)
Pit	636(91.9)	571(84.1)	531(78.9)	1738(85.0)
Bucket, pot	30(4.3)	19(2.8)	51(7.6)	100(4.9)
House surrounding	17(2.5)	0(0)	75(11.1)	92(4.5)
River	0(0)	0(0)	1(0.1)	1(0)
Other	2(0.3)	0(0)	0(0)	2(0.1)
Source of water drinking				
Tap water	119(17.2)	83(12.2)	53(7.9)	255(12.5)
Filter/RO/bottled water	371(53.6)	566(83.5)	452(67.2)	1389(68.0)
Well/ground water	34(4.9)	27(4.0)	114(16.9)	175(8.6)
River	16(2.3)	0(0)	4(0.6)	20(1)
Rain water	2(0.3)	1(0.1)	8(1.2)	11(0.5)
Tap water from mountain	150(21.7)	1(0.1)	42(6.2)	193(9.4)

4.3 Daily diet

Average percentage contribution of different foods to the total consumption

The data shows average percentage contribution of different food items and food groups to the total consumption shown in the figure 5 and figure 6-9 were divided in 6 different target groups. The calculation takes into account all individuals in the population: consumers and non-consumers. Consumers are those individuals who did consume the food of interest during the survey period, and non-consumers are those who did not.

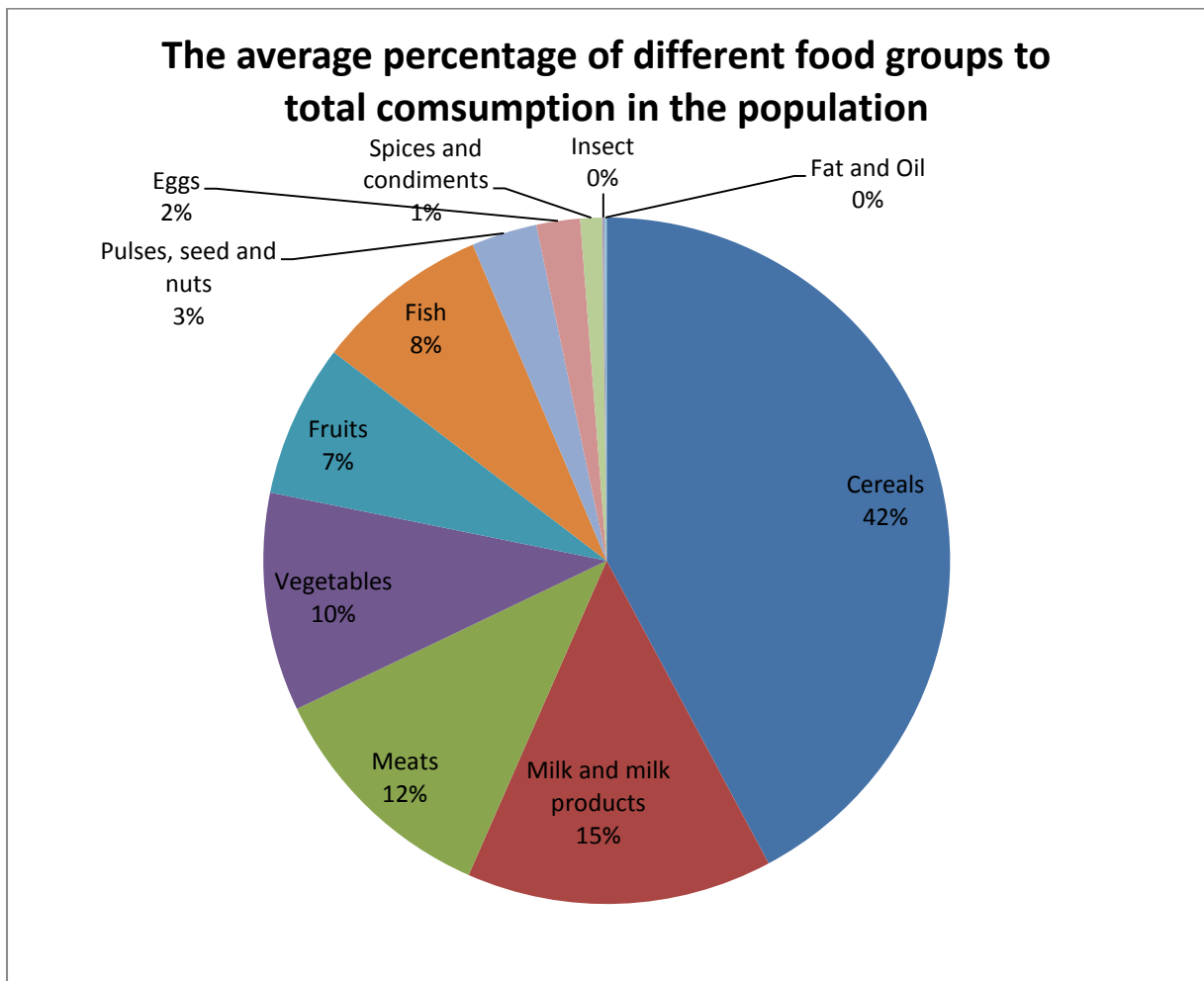
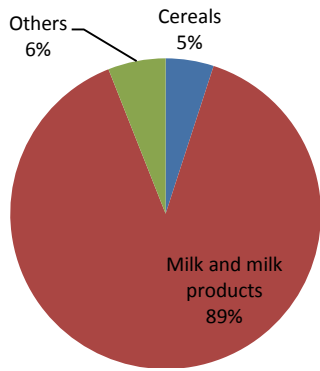
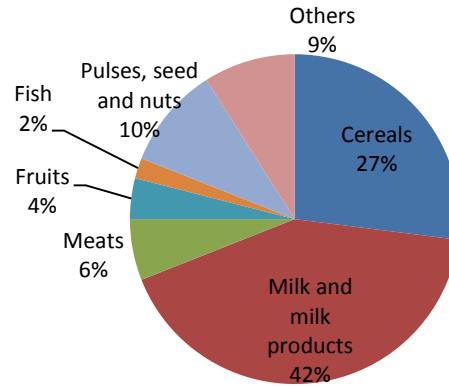


Figure 5: The average percentage contribution of different foods and food groups to total consumption in the population

Portion of different food groups to age group 3-11 months



Portion of different food groups to age group 12-36 months



Portion of different food groups to age group 3-5 year

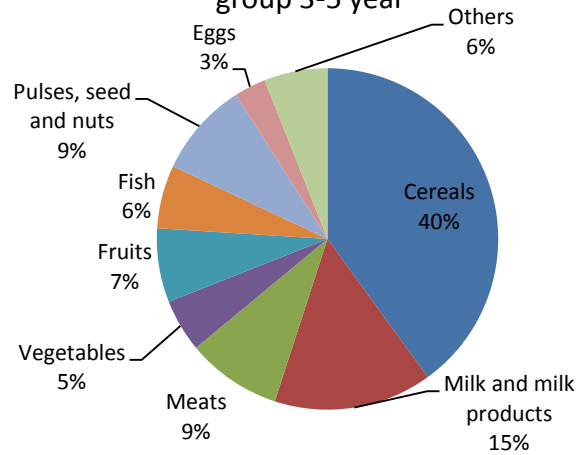


Figure 6: The average percentage contribution of different food groups to children under 5

Portion of different food groups to age group 6-14 year

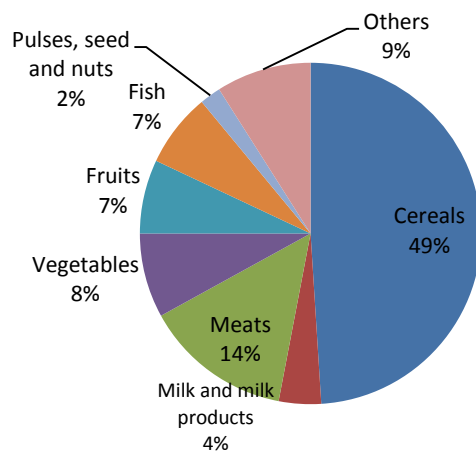


Figure 7: The average percentage contribution of different food groups to adolescent groups

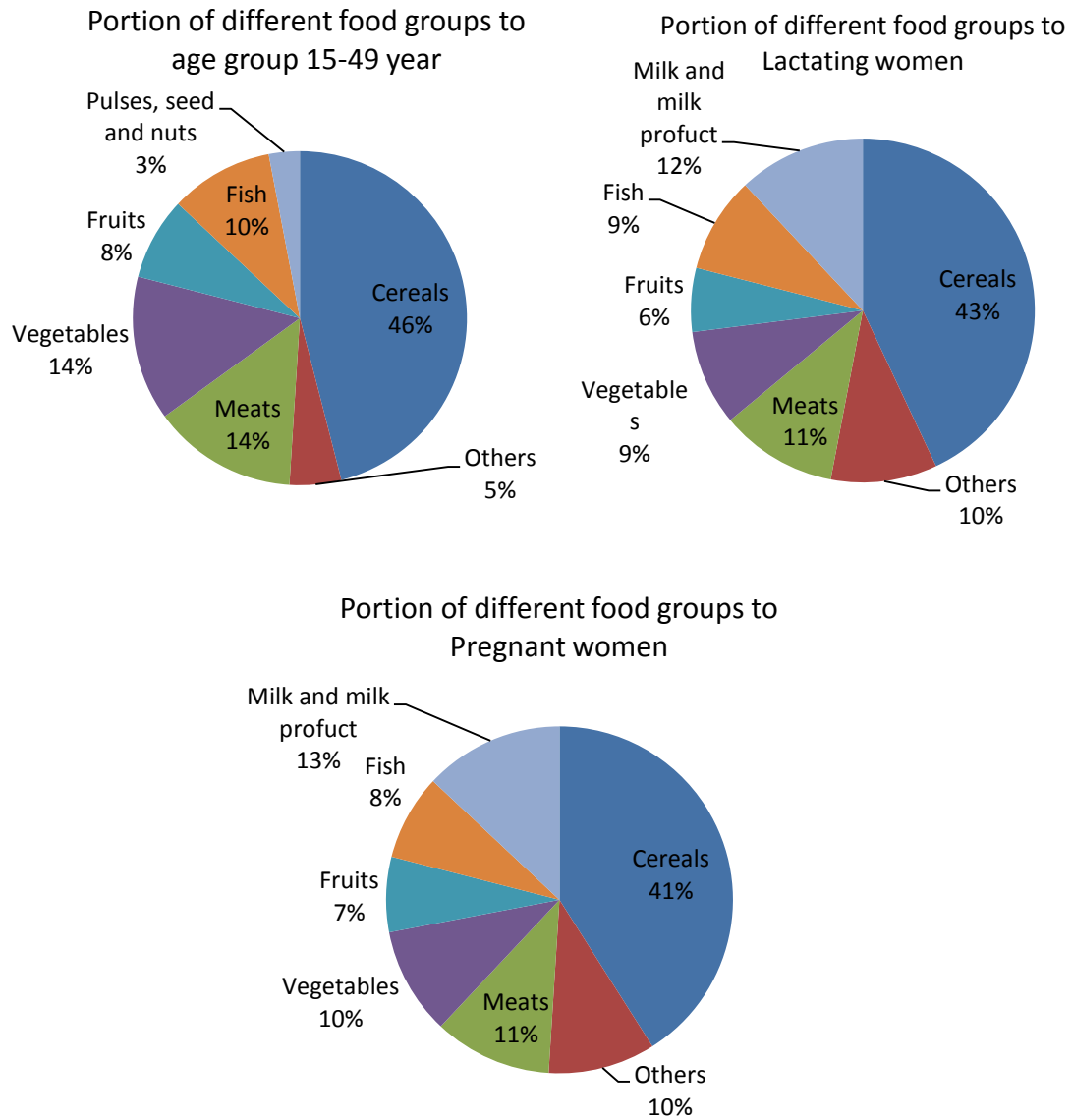


Figure 8: The average percentage contribution of different food groups to all adults population including lactating and pregnant women

Portion of different food groups to
age group >50 year

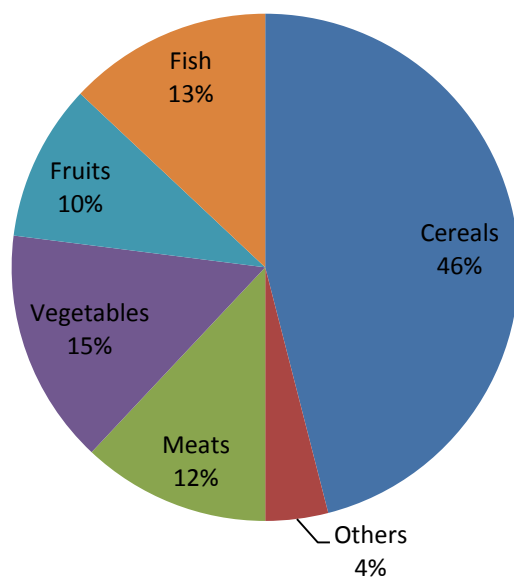


Figure 9: *The average percentage contribution of different food groups to older adult*

4.4 Food consumption

The data shows the prevalence of mean food consumed of top 5 popular food items. Infant 3-11 months old mostly consume milk with 94.26 g per times. Most of milk consumption is human milk with at least 1.7 times per day. 24% of milk frequently consumed infants is milk product. Results for children 12-36 months reveal that the children have feed more on grains and meat. 50% of meat is pork but with a small amount per time 16.14g. However, milk products are the main food served with 126.5 g/times.

The data show that there is no difference for food type consume on adult, older adult and 2 special target groups (pregnancy and Lactating women). Vegetable, Cereal and Fish is more popular to consume in these target age group. Plain water is the most frequently consumed beverage 97.2% and a majority of the population drink it at least six times daily (assuming intake of 274.74 g per each time). Other beverages in descending order such as Soymilk, coffee, and orange flavoured water were. Soft drinks consumption was not in the most frequently consumed list daily. However, this did not imply that the population did not consume soft drinks. Detailed descriptive results on food group and food items consumption stratified by different target group are presented in tables 4 to 19 as below the table shown the food group and top 5 popular food items consumed by mean and percentile contribution of different foods.

Table 4: Mean and percentile of top 5 popular food items consume per capita for infants 3-11 month

Food group	Food item	Consumption (gram/day) per capita			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	274	44.981 \pm 65.91	0.00	178.900
	Rice grain, polished	274	12.178 \pm 71.96	0.00	60.364
	Sponge cake	274	0.371 \pm 3.762	0.00	0.00
	Cream custard cake	274	0.216 \pm 1.875	0.00	0.00
	Buns (with filling)	274	0.173 \pm 1.508	0.00	0.00
Vegetables	Pumpkins	274	0.695 \pm 4.150	0.00	0.00
	Carrots	274	0.444 \pm 3.819	0.00	0.00
	Green amaranth leaves	274	0.158 \pm 1.782	0.00	0.00
	Morning glory	274	0.132 \pm 1.554	0.00	0.00
	Choi sum	274	0.145 \pm 1.359	0.00	0.00
Meat and meat products	Pig fresh meat	274	0.916 \pm 4.441	0.00	5.250
	Pig meat, dried	274	0.522 \pm 2.620	0.00	3.300
	Bovine meat, dried	274	0.360 \pm 2.498	0.00	0.0
	Chicken fresh meat	274	0.378 \pm 2.804	0.00	0.0
	Pig liver	274	0.338 \pm 3.287	0.00	0.0

Milk and dairy products	Human milk	274	451.90±407.9	0.00	1117.50
	Flavoured milks	274	13.358±110.1	0.00	0.0
	Cow milk, whole	274	16.606±128.8	0.00	0.0
	Condensed milk (sometimes with added sugars)	274	0.827±10.105	0.00	0.0
	Milk powder, skimmed	274	0.101±1.667	0.00	0.0
Food for infants and small children	Follow-on formula, milk-based, powder	274	23.322±50.28	0.00	117.825
	Processed cereal-based food for infants and young children	274	4.820±14.183	0.00	36.000
	Special food for children's growth	274	0.582±9.642	0.00	0.0
Fruit and fruit products	Banana- Pisang Awak	274	2.359±10.952	0.00	13.00
	Apples	274	1.089±5.900	0.00	4.125
	Oranges, sweet	274	0.456±2.974	0.00	0.00
	Papayas	274	0.414±2.45	0.00	0.00
	Mandarins	274	0.313±3.246	0.00	0.00
Fish and other seafood	Climbing perch	274	0.561±3.168	0.00	0.00
	Nile tilapia	274	0.292±2.163	0.00	0.00
	Catfishes (freshwater)	274	0.097±1.012	0.00	0.00
	Striped snakehead	274	0.078±.956	0.00	0.00

	Silver barb	274	0.048±.633	0.00	0.00
Egg and egg product	Boiled hen eggs	274	2.178±10.995	0.00	6.00
	Boiled duck eggs	274	0.270±3.189	0.00	0.00
	Fried hen eggs	274	0.036±.604	0.00	0.00
	Hen egg white	274	0.102±1.692	0.00	0.00
	Harden egg products (cooked hen eggs)	274	0.204±3.383	0.00	0.00
	Fats and oils of animal and vegetable	Soya bean oil, refined	274	0.099±1.075	0.00
Fruit and vegetable juices	Coconut water	274	0.182±3.021	0.00	
	Juice, orange	274	0.336±3.346	0.00	0.00
Herbs, spices and condiments	Salt	274	0.672±2.295	0.00	3.031
	Flavour enhancer	274	0.117±.473	0.00	.721
	Stock cubes or granulate, meat	274	0.077±.668	0.00	0.00
	Fermented fish soup (Nam-pla-ra)	274	0.037±.429	0.00	0.00
	Fish sauce	274	0.031±.319	0.00	0.00
Pulses, nuts and oilseeds	Coconut milk (cocos nucifera) liquid	274	0.1001±.658	0.00	0.00
Snacks and desserts	Mixed cereal-based snacks	274	0.287±1.799	0.00	.498
	Snacks other than chips and similar	274	0.197±1.608	0.00	0.00
	Rice chips	274	0.010±0.166	0.00	0.00
	Corn curls	274	0.013±0.211	0.00	0.00

Starchy roots and tubers	Potatoes	274	0.504±4.058	0.00	0.00
Sugar and confectionary (including cocoa products)	Gelatine dessert	274	0.164±1.931	0.00	0.00

Table 5: Mean and percentile of top 5 popular food items consume (consumers only) for infants 3-11 month

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of consumer	Mean \pm SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	128	12.247 \pm 8.057	0.978	21.508	28.070	35.872
	Rice grain, polished	29	14.725 \pm 24.93	0.858	24.000	60.364	0.00
	Sponge cake	5	2.914 \pm 3.084	0.015	0.00	0.0	0.00
	Cream custard cake	4	2.112 \pm 1.004	1.000	0.00	0.0	0.00
	Buns (with filling)	4	1.457 \pm 0.511	0.870	0.00	0.0	0.00
Vegetables	Pumpkins	11	2.064 \pm 1.444	0.186	4.518	0.0	0.00
	Carrots	6	2.727 \pm 2.633	0.114	0.00	0.0	0.00
	Green amaranth leaves	3	1.703 \pm 1.311	0.303	0.00	0.0	0.00
	Morning glory	2	2.298 \pm 0.233	2.133	0.00	0.0	0.00
	Choi sum	4	1.321 \pm 0.918	0.713	0.00	0.0	0.00
Meat and meat products	Pig fresh meat	25	.244 \pm 1.525	0.034	4.686	5.347	0.00
	Pig meat, dried	15	1.181 \pm 0.795	0.211	2.697	0.00	0.00
	Bovine meat, dried	9	1.348 \pm 0.982	0.285	0.00	0.00	0.00
	Chicken fresh meat	9	1.310 \pm 1.291	0.222	0.00	0.00	0.00
	Pig liver	5	2.558 \pm 2.645	0.306	0.00	0.00	0.00

Milk and dairy products	Human milk	205	89.306±59.01	23.213	160.358	192.995	250.029
	Flavoured milks	6	77.994±63.38	3.750	0.00	0.00	0.00
	Cow milk, whole	6	80.314±45.41	18.519	0.00	0.00	0.00
	Condensed milk (sometimes with added sugars)	3	14.913±16.67	0.684	0.00	0.00	0.00
	Milk powder, skimmed	1	3.833±0.000	3.833	3.833	3.833	3.833
Food for infants and small children	Follow-on formula, milk-based, powder	70	12.197±7.491	1.315	22.644	26.654	33.211
	Processed cereal-based food for infants and young children	44	4.602±3.397	0.964	9.313	11.769	15.858
	Special food for children's growth	1	16.286±0.000	16.286	16.286	16.286	16.286
Fruit and fruit products	Banana- Pisang Awak	20	4.057±2.924	0.602	9.307	9.468	0.00
	Apples	16	2.049±1.771	0.133	5.000	0.00	0.00
	Oranges, sweet	10	1.511±1.238	0.491	4.211	0.00	0.00
	Papayas	9	1.691±0.668	2.564	0.00	0.00	0.00
	Mandarins	3	3.337±0.930	0.00	0.00	0.00	0.00

Fish and other seafood	Climbing perch	11	1.753±1.162	0.493	3.916	0.00	0.00
	Nile tilapia	9	1.121±1.173	0.299	0.00	0.00	0.00
	Catfishes (freshwater)	3	1.214±0.754	0.435	0.00	0.00	0.00
	Striped snakehead	3	0.701±0.575	0.177	0.00	0.00	0.00
	Silver barb	2	0.731±0.538	0.351	0.00	0.00	0.00
Egg and egg product	Boiled hen eggs	15	4.859±3.555	0.433	10.920	0.00	0.00
	Boiled duck eggs	3	3.067±3.358	1.120	0.00	0.00	0.00
	Fried hen eggs	1	1.031±0.000	1.031	1.031	1.031	1.031
	Hen egg white	1	4.058±0.000	4.058	4.058	4.058	4.058
	Harden egg products (cooked hen eggs)	1	6.747±0.000	6.747	6.747	6.747	6.747
Fats and oils of animal and vegetable	Soya bean oil, refined	4	0.648±0.523	0.114	0.00	0.00	0.00
Fruit and vegetable juices	Coconut water	1	5.263±0.000	5.263	5.263	5.263	5.263
	Juice, orange	4	2.960±2.102	1.687			
Herbs, spices and condiments	Salt	78	0.288±0.424	0.013	0.677	0.866	1.003
	Flavour enhancer	37	0.100±0.110	0.005	0.284	0.389	0.00
	Stock cubes or granulate, meat	9	0.295±0.376	0.015	0.00	0.00	0.00
	Fermented fish soup (Nam-pla-ra)	7	0.160±0.256	0.007	0.00	0.00	0.00

	Fish sauce	4	0.237±0.195	0.095	0.00	0.00	0.00
Pulses, nuts and oilseeds	Coconut milk (cocos nucifera) liquid	1	5.966±0.000	5.966	5.966	5.966	5.966
Snacks and desserts	Mixed cereal-based snacks	14	0.648±0.644	0.051	1.876	0.00	0.00
	Snacks other than chips and similar	7	0.825±0.702	0.149	0.00	0.00	0.00
	Rice chips	2	0.176±0.231	0.012	0.00	0.00	0.00
	Corn curls	1	0.500±0.000	0.500	0.500	0.500	0.500
Starchy roots and tubers	Potatoes	7	2.641±2.605	0.236	0.00	0.00	0.00
Sugar and confectionary (including cocoa products)	Gelatine dessert	3	1.60±1.147	0.610	0.00	0.00	0.00

Table 6: Mean and percentile of top 5 popular food items consume per capita for toddler 12-36 month

Food group	Food item	Consumption Per capita (gram/day)			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	284	163.35 \pm 111.29	0.00	342.00
	Rice grain, polished	284	11.78 \pm 40.55	0.00	113.25
	Cream custard cake	284	1.91 \pm 7.99	0.00	15.00
	Buns (with filling)	284	1.88 \pm 9.41	0.00	15.00
	Sponge cake	284	1.67 \pm 7.57	0.00	14.75
Vegetables	Green onions	284	0.25 \pm 0.92	0.00	2.00
	Garlic	284	0.12 \pm 0.68	0.00	0.69
	Capsicum annuum hot cultivars	284	0.08 \pm 0.331	0.00	0.64
	Choi sum	284	1.36 \pm 5.97	0.00	14.21
	Bamboo shoots	284	0.00 \pm 1.39	49.00	0.00
Meat and meat products	Pig fresh meat	284	5.30 \pm 12.91	0.00	33.18
	Pig meat, dried	284	1.70 \pm 6.66	0.00	10.00
	Chicken fresh meat	284	2.44 \pm 9.50	0.00	20.00
	Water buffalo fresh meat	284	1.73 \pm 7.22	0.00	17.33
	Cow, ox or bull fresh meat	284	1.74 \pm 7.30	0.00	13.00

Milk and dairy products	Human milk	284	87.72±210.86	0.00	599.00
	Flavoured milks	284	75.49±245.23	0.00	540.0
	Cow milk, whole	284	89.19±275.93	0.00	791.25
	Yoghurt drinks, including sweetened and/or flavoured variants	284	8.52±66.32	0.00	0.00
	Condensed milk (sometimes with added sugars)	284	0.45±7.12	0.00	0.00
Food for infants and small children	Follow-on formula, milk-based, powder	284	12.18±40.85	0.00	98.52
	Processed cereal-based food for infants and young children	284	0.25±3.62	0.00	.000
	Special food for children's growth	284	0.05±0.90	0.00	.000
Fruit and fruit products	Apples	284	7.80±23.79	0.00	60.00
	Oranges, sweet	284	8.27±23.48	0.00	72.00
	Banana- Pisang Awak	284	7.48±32.73	0.00	59.37
	Tamarind	284	0.39±2.41	0.00	0.45
	Watermelons	284	5.53±33.46	0.00	0.00

Fish and other seafood	Nile tilapia	284	5.10±16.04	0.00	32.50
	Climbing perch	284	2.76±8.63	0.00	19.26
	Clarias catfish (generic)	284	1.23±5.97	0.00	5.77
	Striped snakehead	284	1.05±5.50	0.00	4.53
	Other frog legs from frogs not belonging to the genus Rana	284	0.69±4.08	0.00	0.00
Egg and egg product	Boiled hen eggs	284	8.39±21.52	0.00	61.00
	Fried hen eggs	284	1.91±9.15	0.00	0.00
	Harden egg products (cooked hen eggs)	284	2.19±15.93	0.00	0.00
	Boiled duck eggs	284	2.06±19.54	0.00	0.00
	Salted eggs	284	0.41±4.98	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	284	0.56±2.26	0.00	4.06
	Pig skin	284	0.33±2.78	0.00	0.00
	Poultry skin	284	0.06±0.89	0.00	0.00
Fruit and vegetable juices	Vegetable juice	284	0.41±2.92	0.00	0.00
	Coconut water	284	3.76±29.39	0.00	0.00
	Fruit / vegetable juices and nectars	284	0.44±4.43	0.00	0.00

Herbs, spices and condiments	Salt	284	1.82±1.94	0.00	5.62
	Flavour enhancer	284	1.94±12.38	0.00	2.57
	Fermented fish soup (Nam-pla-ra)	284	0.56±3.69	0.00	1.95
	Soy sauce	284	0.61±3.35	0.00	3.433
	Stock cubes or granulate, meat	284	0.14±0.51	0.00	.515
Pulses, nuts and oilseeds	Coconuts	284	0.30±4.42	0.00	0.00
	Canned or jarred peas	284	0.26±4.42	0.00	0.00
Snacks and desserts	Mixed cereal-based snacks	284	3.92±10.01	0.00	21.12
	Snacks other than chips and similar	284	2.32±8.30	0.00	17.00
	Corn curls	284	1.13±7.41	0.00	0.00
	Potato crisps from potato slices	284	0.26±1.81	0.00	0.00
Starchy roots and tubers	Cassava roots	284	0.23±4.03	0.00	0.00
	Sweet potatoes	284	0.23±4.03	0.00	0.00
Sugar and confectionary (including cocoa products)	Hard candies	284	1.352±4.713	0.00	11.800
	Refined cane sugar	284	0.265±2.081	0.00	0.770
	Gelatine dessert	284	3.067±19.444	0.00	15.00

Table 7: Mean and percentile of top 5 popular food items consume (consumers only) for toddler 12-36 month

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of subject	Mean \pm SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	260	17.33 \pm 9.96	4.499	29.219	33.766	44.148
	Rice grain, polished	35	8.81 \pm 6.64	1.506	18.562	24.064	0.00
	Cream custard cake	22	2.54 \pm 1.82	0.563	4.834	8.379	0.00
	Buns (with filling)	18	3.05 \pm 2.68	0.411	7.365	0.00	0.00
	Sponge cake	16	2.93 \pm 1.20	1.485	4.925	0.00	0.00
Vegetables	Green onions	34	0.20 \pm 0.15	0.042	0.465	0.586	0.00
	Garlic	26	0.13 \pm 0.16	0.008	0.309	0.632	0.00
	Capsicum annuum hot cultivars	25	0.08 \pm 0.06	0.023	0.176	0.264	0.00
	Choi sum	17	2.07 \pm 0.93	0.435	3.398	0.00	0.00
	Bamboo shoots	17	2.20 \pm 1.30	0.205	4.674	0.00	0.00
Meat and meat products	Pig fresh meat	71	1.97 \pm 1.71	0.246	4.427	5.393	6.918
	Pig meat, dried	34	1.33 \pm 1.23	0.256	2.611	4.669	0.00
	Chicken fresh meat	28	2.28 \pm 1.68	0.240	4.921	6.451	0.00
	Water buffalo fresh meat	23	2.13 \pm 1.54	0.295	4.786	5.940	0.00
	Cow, ox or bull fresh meat	21	2.15 \pm 1.28	0.510	3.828	5.474	0.00

Milk and dairy products	Human milk	65	44.05±34.30	6.220	93.289	121.934	132.359
	Flavoured milks	40	49.20±37.75	11.922	111.717	148.452	166.687
	Cow milk, whole	39	60.56±40.72	10.000	104.167	140.260	0.00
	Yoghurt drinks, including sweetened and/or flavoured variants	9	26.28±25.13	2.577	0.00	0.00	0.00
	Condensed milk (sometimes with added sugars)	3	3.77±5.92	0.266	0.00	0.00	0.00
Food for infants and small children	Follow-on formula, milk-based, powder	35	9.64±6.55	0.988	17.868	28.040	0.00
	Processed cereal-based food for infants and young children	2	4.24±3.53	1.739	0.00	0.00	0.00
	Special food for children's growth	1	1.92±0.00	1.924	1.924	1.924	1.924
Fruit and fruit products	Apples	50	4.31±3.53	0.866	8.429	13.052	17.660
	Oranges, sweet	49	4.55±3.28	1.107	8.780	12.808	14.563
	Banana- Pisang Awak	25	8.49±8.35	0.482	22.883	32.521	0.00
	Tamarind	15	0.67±0.78	0.028	2.148	0.00	0.00
	Watermelons	13	11.09±8.36	3.988	28.624	0.00	0.00
Fish and other seafood	Nile tilapia	50	2.81±2.98	0.644	5.678	6.575	16.487
	Climbing perch	43	1.91±1.73	0.329	4.474	6.766	7.721
	Clarias catfish (generic)	17	2.07±1.39	0.247	4.079	0.00	0.00
	Striped snakehead	17	1.77±1.40	0.204	4.403	0.00	0.00

	Other frog legs from frogs not belonging to the genus Rana	13	1.37±1.09	0.244	3.339	0.00	0.00
Egg and egg product	Boiled hen eggs	47	5.02±2.64	0.744	7.904	11.273	13.415
	Fried hen eggs	13	4.26±1.50	1.869	5.995	0.00	0.00
	Harden egg products (cooked hen eggs)	11	5.77±6.39	0.818	16.503	0.00	0.00
	Boiled duck eggs	6	8.31±6.89	2.874	0.00	0.00	0.00
	Salted eggs	2	5.95±0.21	5.800	0.00	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	34	0.45±0.48	0.023	1.317	1.511	0.00
	Pig skin	7	1.24±1.12	0.230	0.00	0.00	0.00
	Poultry skin	2	0.97±1.09	0.200	0.00	0.00	0.00
Fruit and vegetable juices	Vegetable juice	9	1.20±0.93	0.148	0.00	0.00	0.00
	Coconut water	5	20.83±6.23	9.901	0.00	0.00	0.00
	Fruit / vegetable juices and nectars	3	3.92±1.27	2.500	0.00	0.00	0.00
Herbs, spices and condiments	Salt	211	0.24±0.18	0.030	0.490	0.617	0.724
	Flavour enhancer	172	0.32±1.69	0.009	0.235	0.300	4.264
	Fermented fish soup (Nam-pla-ra)	40	0.36±0.80	0.022	1.033	1.289	4.856
	Soy sauce	39	0.38±0.56	0.042	0.739	1.953	0.00

	Stock cubes or granulate, meat	30	0.12±0.09	0.020	0.255	0.349	0.00
Pulses, nuts and oilseeds	Coconuts	2	4.27±4.25	1.262	0.00	0.00	0.00
	Canned or jarred peas	1	6.15±0.00	6.157	6.157	6.157	6.157

Snacks and desserts	Mixed cereal-based snacks	74	1.42±1.40	0.109	2.853	4.856	6.255
	Snacks other than chips and similar	39	1.63±1.46	0.292	3.354	5.849	0.00
	Corn curls	12	2.37±2.19	0.263	6.167	0.00	0.00
	Potato crisps from potato slices	7	1.05±0.50	0.484	0.00	0.00	0.00
Starchy roots and tubers	Cassava roots	1	8.39±0.00	8.395	8.395	8.395	8.395
	Sweet potatoes	1	7.72±0.00	7.727	7.727	7.727	7.727
Sugar and confectionary (including cocoa products)	Hard candies	36	0.986±0.827	0.839	2.567	0.00	0.00
	Refined cane sugar	2	0.292±0.654	0.164	2.223	3.106	0.00
	Gelatine dessert	16	5.114±5.738	1.316	14.30	0.00	0.00

Table 8: Mean and percentile of top 5 popular food items consume per capita for children 3-5 year

Food group	Food item	Consumption per capita (gram/day)			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	300	218.09 \pm 108.57	59.705	403.875
	Rice grain, polished	300	12.53 \pm 44.09	.000	120.000
	Noodle, rice	300	10.50 \pm 34.20	.000	79.500
	Cream custard cake	300	1.40 \pm 6.00	0.00	15.00
	Biscuit with inclusions, filling or coating	300	2.24 \pm 15.89	0.00	5.70
Vegetables	Capsicum annum hot cultivars	300	0.21 \pm 0.77	0.00	1.49
	Green onions	300	0.45 \pm 1.70	0.00	3.65
	Bamboo shoots	300	3.51 \pm 11.84	0.00	32.34
	Garlic	300	0.14 \pm 0.68	0.00	0.88
	Choi sum	300	2.67 \pm 10.67	0.00	21.00
Meat and meat products	Pig fresh meat	300	9.63 \pm 20.694	0.00	53.50
	Chicken fresh meat	300	5.44 \pm 15.91	0.00	37.62
	Pig meat, dried	300	2.03 \pm 6.82	0.00	20.00
	Cow, ox or bull fresh meat	300	2.87 \pm 11.28	0.00	24.56
	Meat balls	300	1.73 \pm 7.74	0.00	10.00

Milk and dairy products	Flavoured milks	300	53.85±149.37	0.00	375.00
	Cow milk, whole	300	30.57±107.00	0.00	248.75
	Condensed milk (sometimes with added sugars)	300	0.76±5.43	0.00	0.00
	Yoghurt drinks, including sweetened and/or flavoured variants	300	3.39±24.94	0.00	0.00
Food for infants and small children	Follow-on formula, milk-based, powder	300	0.70±6.80	0.00	0.00
Fruit and fruit products	Apples	300	11.80±34.82	0.00	68.55
	Oranges, sweet	300	9.50±30.48	0.00	72.00
	Banana- Pisang Awak	300	6.09±23.08	0.00	63.00
	Mangoes	300	3.94±17.38	0.00	34.75
	Limes	300	0.26±1.45	0.00	1.00
Fish and other seafood	Nile tilapia	300	8.69±23.43	0.00	63.50
	Climbing perch	300	3.75±13.55	0.00	30.75
	Striped snakehead	300	5.37±31.97	0.00	39.66
	Clarias catfish (generic)	300	2.94±12.92	0.00	28.30
	Catfishes (freshwater)	300	1.15±6.38	0.00	0.00

Egg and egg product	Boiled hen eggs	300	11.60±25.66	0.00	61.00
	Fried hen eggs	300	4.42±18.45	0.00	49.89
	Harden egg products (cooked hen eggs)	300	3.28±14.96	0.00	23.17
	Boiled duck eggs	300	0.94±6.99	0.00	0.00
	Harden egg products (cooked duck eggs)	300	0.21±3.75	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	300	1.52±3.95	0.00	11.52
	Pig skin	300	0.54±3.12	0.00	0.00
	Poultry skin	300	0.16±1.85	0.00	0.00
Fruit and vegetable juices	Vegetable juice	300	1.67±12.67	0.00	0.85
	Coconut water	300	1.66±16.77	0.00	0.00
	Juice, orange	300	0.60±5.26	0.00	0.00
Herbs, spices and condiments	Salt	300	2.35±2.73	0.00	7.91
	Flavour enhancer	300	0.85±1.10	0.00	3.07
	Fermented fish soup (Nam-pla-ra)	300	1.30±4.02	0.00	6.19
	Soy sauce	300	0.80±4.88	0.00	3.45
	Stock cubes or granulate, meat	300	0.15±0.64	0.00	1.12
Pulses, nuts and oilseeds	Coconuts	300	0.32±3.44	0.00	0.00
	Sesame seeds	300	0.03±0.33	0.00	0.00

Snacks and desserts	Mixed cereal-based snacks	300	5.20±11.13	0.00	24.95
	Snacks other than chips and similar	300	6.44±15.75	0.00	30.00
	Wafers	300	1.51±6.70	0.00	13.37
	Corn curls	300	1.11±5.70	0.00	6.90
Starchy roots and tubers	Sweet potatoes	300	0.60±8.26	0.00	0.00
	Taros	300	0.94±16.28	0.00	0.00
Sugar and confectionary (including cocoa products)	Hard candies	300	2.786±7.890	0.00	13.950
	Refined cane sugar	300	0.905±4.919	0.00	3.519
	Gelatine dessert	300	2.505±17.260	0.00	0.00
	Cocoa beverage-preparation, powder	300	0.705±4.086	0.00	0.00
	Syrups	300	1.863±20.206	0.00	0.00

Table 9: Mean and percentile of top 5 popular food items consume (consumers only) for children 3-5 year

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of consumer	Mean \pm SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	292	15.35 \pm 7.07	5.503	23.878	26.740	31.408
	Rice grain, polished	32	8.00 \pm 5.85	2.130	16.822	22.208	0.00
	Noodle, rice	34	6.50 \pm 4.12	1.780	13.087	14.679	0.00
	Cream custard cake	19	1.51 \pm 0.75	0.904	3.020	0.00	0.00
	Biscuit with inclusions, filling or coating	15	3.11 \pm 3.79	0.403	10.946	0.00	0.00
Vegetables	Capsicum annuum hot cultivars	50	0.08 \pm 0.10	0.005	0.175	0.282	0.551
	Green onions	43	0.22 \pm 0.25	0.021	0.545	0.906	1.119
	Bamboo shoots	32	2.19 \pm 1.13	0.233	3.974	4.461	0.00
	Garlic	30	0.09 \pm 0.10	0.002	0.199	0.399	0.00
	Choi sum	27	1.92 \pm 1.46	0.428	4.077	5.615	0.00

Meat and meat products	Pig fresh meat	96	2.07±1.92	0.277	3.879	5.380	9.299
	Chicken fresh meat	46	2.38±1.65	0.515	4.588	5.563	8.070
	Pig meat, dried	33	1.27±0.80	0.377	2.347	3.459	0.00
	Cow, ox or bull fresh meat	30	1.93±1.47	0.268	4.647	5.540	0.00
	Meat balls	23	1.49±1.17	0.233	3.571	4.421	0.00
Milk and dairy products	Flavoured milks	51	22.88±18.11	6.839	42.665	69.951	89.907
	Cow milk, whole	31	19.83±12.31	4.557	39.072	48.222	0.00
	Condensed milk (sometimes with added sugars)	11	1.47±1.34	0.156	4.041	0.00	0.00
	Yoghurt drinks, including sweetened and/or flavoured variants	6	11.02±3.62	5.682	0.00	0.00	0.00
Food for infants and small children	Follow-on formula, milk-based, powder	4	3.49±1.84	0.752	0.00	0.00	0.00
Fruit and fruit products	Apples	50	4.89±4.09	0.897	9.570	15.527	19.306
	Oranges, sweet	45	4.29±3.61	0.736	10.334	12.683	17.853
	Banana- Pisang Awak	25	5.03±2.62	1.502	9.625	10.807	0.00
	Mangoes	21	3.91±2.49	1.384	9.039	9.431	0.00
	Limes	19	0.28±0.28	0.038	0.986	0.00	0.00

Fish and other seafood	Nile tilapia	57	3.09±2.47	0.634	6.097	8.442	11.722
	Climbing perch	36	2.28±2.13	0.345	5.095	8.924	0.00
	Striped snakehead	28	4.01±6.48	0.387	6.941	23.196	0.00
	Clarias catfish (generic)	26	2.31±2.04	0.230	4.570	8.339	0.00
	Catfishes (freshwater)	14	1.64±1.03	0.442	3.477	0.00	0.00
Egg and egg product	Boiled hen eggs	59	4.08±1.81	1.167	6.440	8.065	9.756
	Fried hen eggs	20	4.42±2.25	1.497	9.150	9.976	0.00
	Harden egg products (cooked hen eggs)	19	3.52±2.32	0.179	7.368	0.00	0.00
	Boiled duck eggs	6	3.72±1.82	1.524	0.00	0.00	0.00
	Harden egg products (cooked duck eggs)	1	4.85±0.00	4.851	4.851	4.851	4.851
Fats and oils of animal and vegetable	Soya bean oil, refined	65	0.47±0.38	0.033	1.099	1.314	1.485
	Pig skin	10	1.07±0.47	0.527	1.870	0.00	0.00
	Poultry skin	4	0.87±0.93	0.197	0.00	0.00	0.00
Fruit and vegetable juices	Vegetable juice	17	1.80±2.73	0.021	7.627	0.00	0.00
	Coconut water	4	7.87±5.38	2.551	0.00	0.00	0.00
	Juice, orange	4	3.34±0.75	2.273	0.00	0.00	0.00

Herbs, spices and condiments	Salt	236	0.20±0.19	0.018	0.496	0.618	0.827
	Flavour enhancer	214	0.08±0.08	0.008	0.194	0.245	0.309
	Fermented fish soup (Nam-pla-ra)	85	0.29±0.39	0.020	0.719	1.327	1.746
	Soy sauce	54	0.32±0.82	0.028	0.571	0.697	4.093
	Stock cubes or granulate, meat	32	0.10±0.09	0.013	0.291	0.328	0.00
Pulses, nuts and oilseeds	Coconuts	5	1.43±1.54	1.461	1.461	1.461	1.461
	Sesame seeds	4	0.18±0.09	0.078	0.00	0.00	0.00
Snacks and desserts	Mixed cereal-based snacks	96	1.14±1.16	0.217	2.145	3.421	5.556
	Snacks other than chips and similar	82	1.59±1.39	0.292	3.632	4.409	6.012
	Wafers	21	1.51±1.04	0.330	3.427	4.310	0.00
	Corn curls	20	1.13±0.96	0.088	3.156	3.533	0.00
Starchy roots and tubers	Sweet potatoes	1	16.39±0.00	2.671	0.00	0.00	0.00
	Taros	2	5.05±3.36	16.395	16.395	16.395	16.395
Sugar and confectionary (including cocoa products)	Hard candies	72	0.866±1.118	0.132	1.875	3.226	5.491
	Refined cane sugar	42	0.430±0.793	0.008	1.068	2.344	4.156
	Gelatine dessert	14	3.680±4.760	0.455	12.26	0.00	0.00
	Cocoa beverage-preparation, powder	10	1.461±0.578	0.320	2.577	0.00	0.00
	Syrups	6	5.731±7.203	0.171	0.00	0.00	0.00

Table 10: Mean and percentile of top 5 popular food items consume per capita for adolescent 6-14 year

Food group	Food item	Consumption Per capita (gram/day)			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	298	332.34 \pm 182.15	82.850	665.103
	Noodle, rice	298	23.61 \pm 59.15	.000	159.00
	Rice grain, polished	298	21.17 \pm 83.26	.000	132.737
	Sponge cake	298	2.27 \pm 9.49	.000	23.000
	Asian-style noodles other than glass noodles	298	7.09 \pm 32.04	.000	62.500
Vegetables	Capsicum annum hot cultivars	298	0.93 \pm 2.04	.000	4.763
	Green onions	298	1.20 \pm 2.76	.000	6.080
	Garlic	298	0.50 \pm 1.44	.000	3.620
	Choi sum	298	6.52 \pm 18.34	.000	38.500
	Morning glory	298	5.10 \pm 18.36	.000	28.625
Meat and meat products	Pig fresh meat	298	15.93 \pm 26.07	.000	66.066
	Chicken fresh meat	298	10.88 \pm 33.96	.000	67.921
	Meat balls	298	5.10 \pm 17.88	.000	40.611

	Cow, ox or bull fresh meat	298	5.44±20.58	.000	45.870
	Water buffalo fresh meat	298	3.34±12.56	.000	34.778

Milk and dairy products	Flavoured milks	298	18.23±85.00	.000	180.000
	Cow milk, whole	298	8.40±53.90	.000	.000
	Condensed milk (sometimes with added sugars)	298	0.45±4.38	.000	.000
Fruit and fruit products	Limes	298	1.23±3.71	.000	7.281
	Apples	298	10.29±29.34	.000	120.000
	Banana- Pisang Awak	298	9.90±39.00	.000	73.500
	Oranges, sweet	298	6.03±26.21	.000	48.744
	Mangoes	298	7.42±43.04	.000	57.000
Fish and other seafood	Nile tilapia	298	8.32±25.60	.000	63.500
	Climbing perch	298	6.21±19.16	.000	51.819
	Clarias catfish (generic)	298	4.77±15.22	.000	39.000
	Striped snakehead	298	5.77±20.76	.000	59.400
	Other frog legs from frogs not belonging to the genus Rana	298	1.92±10.87	.000	10.100
Egg and egg product	Boiled hen eggs	298	8.57±27.58	.000	61.000
	Fried hen eggs	298	4.67±17.38	.000	50.000

	Harden egg products (cooked hen eggs)	298	1.92±10.95	.000	.149
	Boiled duck eggs	298	0.60±5.47	.000	.000

Fats and oils of animal and vegetable	Soya bean oil, refined	298	1.64±5.02	.000	10.100
	Pig skin	298	0.32±2.17	.000	.000
	Bovine skin	298	0.20±2.07	.000	.000
Fruit and vegetable juices	Vegetable juice	298	2.84±15.66	.000	8.383
	Fruit / vegetable juices and nectars	298	2.01±19.99	.000	.000
	Coconut water	298	1.00±12.93	.000	.000
Herbs, spices and condiments	Flavour enhancer	298	2.00±2.66	.000	5.527
	Salt	298	3.58±2.95	.000	9.144
	Fermented fish soup (Nam-pla-ra)	298	2.85±6.03	.000	14.848
	Fish sauce	298	1.06±4.22	.000	5.751
	Soy sauce	298	0.63±2.16	.000	3.450
Pulses, nuts and oilseeds	Sesame seeds	298	0.10±0.89	.000	.000
	Coconut milk (cocos nucifera) liquid	298	0.95±7.76	.000	.000
Snacks and desserts	Mixed cereal-based snacks	298	3.03±9.27	.000	17.000
	Snacks other than chips and	298	7.48±25.63	.000	34.000

	similar				
	Wafers	298	1.82±10.10	.000	12.910
	Corn curls	298	1.73±11.25	.000	3.675
Starchy roots and tubers	Tapioca starch	298	0.28±2.25	.000	.000
Sugar and confectionary (including cocoa products)	Refined cane sugar	298	2.675±8.668	0.00	20.62
	Hard candies	298	2.677±6.307	0.00	15.00
	Chewing gum	298	0.43±2.45	0.00	0.00
	Syrups	298	2.69±21.56	0.00	0.00
	Gelatine dessert	298	0.69±5.92	0.00	0.00

Table 11: Mean and percentile of top 5 popular food items consume (consumers only) for adolescent 6-14 year

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of subject	Mean \pm SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	290	12.14 \pm 5.70	3.771	19.519	21.999	25.934
	Noodle, rice	58	4.29 \pm 2.97	1.118	8.501	10.803	13.818
	Rice grain, polished	29	8.13 \pm 6.17	1.510	17.242	24.587	0.00
	Sponge cake	20	1.44 \pm 0.99	0.341	2.222	4.632	0.00
	Asian-style noodles other than glass noodles	19	3.99 \pm 1.84	1.145	6.477	0.00	0.00
Vegetables	Capsicum annum hot cultivars	109	0.08 \pm 0.08	0.006	0.197	0.253	0.336
	Green onions	87	0.14 \pm 0.12	0.019	0.249	0.399	0.473
	Garlic	82	0.06 \pm 0.10	0.005	0.185	0.268	0.442
	Choi sum	50	1.31 \pm 0.93	0.231	2.733	3.406	4.219
	Morning glory	44	1.20 \pm 1.27	0.151	2.801	4.060	6.446
Meat and meat products	Pig fresh meat	120	1.47 \pm 1.11	0.173	2.870	3.455	4.545
	Chicken fresh meat	58	1.93 \pm 2.19	0.255	3.546	4.697	10.652
	Meat balls	37	1.46 \pm 1.48	0.113	3.014	6.016	0.00
	Cow, ox or bull fresh meat	35	1.68 \pm 1.30	0.245	3.441	4.499	0.00

	Water buffalo fresh meat	25	1.49±0.83	0.308	2.729	3.003	0.00
Milk and dairy products	Flavoured milks	17	11.57±6.35	2.507	23.508	0.00	0.00
	Cow milk, whole	8	10.18±4.25	5.263	0.00	0.00	0.00
	Condensed milk (sometimes with added sugars)	7	0.62±0.57	0.156	0.00	0.00	0.00
Fruit and fruit products	Limes	61	0.20±0.22	0.028	0.574	0.677	0.972
	Apples	41	2.91±1.61	0.577	5.207	6.410	6.762
	Banana- Pisang Awak	25	4.20±2.79	0.780	8.240	11.897	0.00
	Oranges, sweet	22	2.92±2.51	0.260	6.289	10.297	0.00
	Mangoes	20	4.20±5.43	0.665	9.547	24.572	0.00
Fish and other seafood	Nile tilapia	48	2.11±1.98	0.195	5.599	6.290	9.615
	Climbing perch	43	1.56±1.24	0.365	3.693	4.525	5.344
	Clarias catfish (generic)	38	1.22±0.81	0.355	2.427	2.796	0.00
	Striped snakehead	30	2.19±1.52	0.218	4.051	5.721	0.00
	Other frog legs from frogs not belonging to the genus Rana	17	1.02±0.83	0.053	2.282	0.00	0.00
Egg and egg product	Boiled hen eggs	35	2.95±1.42	1.066	5.480	6.069	0.00
	Fried hen eggs	23	2.46±1.18	0.644	3.477	5.763	0.00
	Harden egg products (cooked hen eggs)	14	1.78±1.53	0.105	4.671	0.00	0.00
	Boiled duck eggs	4	1.77±0.69	1.109	0.00	0.00	0.00

Fats and oils of animal and vegetable	Soya bean oil, refined	64	0.30±0.40	0.039	0.558	0.782	2.054
	Pig skin	10	0.24±0.17	0.053	0.592	0.00	0.00
	Bovine skin	3	0.61±0.48	0.239	0.00	0.00	0.00
Fruit and vegetable juices	Vegetable juice	29	0.99±1.52	0.048	2.439	5.429	0.00
	Fruit / vegetable juices and nectars	3	7.39±0.53	6.826	0.00	0.00	0.00
	Coconut water	2	7.53±3.92	4.762	0.00	0.00	0.00
Herbs, spices and condiments	Flavour enhancer	270	0.07±0.07	0.010	0.151	0.214	0.271
	Salt	267	0.14±0.11	0.017	0.312	0.377	0.435
	Fermented fish soup (Nam-pla-ra)	128	0.22±0.26	0.033	0.500	0.714	1.257
	Fish sauce	64	0.16±0.31	0.006	0.309	0.877	1.507
	Soy sauce	52	0.12±0.10	0.017	0.244	0.305	0.515
Pulses, nuts and oilseeds	Sesame seeds	9	0.10±0.10	0.001	0.00	0.00	0.00
	Coconut milk (cocos nucifera) liquid	6	1.50±0.67	0.917	0.917	0.917	0.917
Snacks and desserts	Mixed cereal-based snacks	57	0.65±0.70	0.131	1.424	1.589	3.482
	Snacks other than chips and similar	67	1.31±1.42	0.245	2.380	4.783	7.287
	Wafers	17	1.44±1.54	0.396	4.405	0.00	0.00

	Corn curls	15	1.19±1.21	0.173	3.377	0.00	0.00
Starchy roots and tubers	Tapioca starch	8	0.38±0.49	0.055	0.00	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	91	0.300±0.442	0.024	0.922	14.10	1.863
	Hard candies	71	0.451±0.395	0.085	0.809	1.331	1.982
	Chewing gum	11	0.574±0.362	0.201	1.240	0.00	0.00
	Syrups	10	3.118±3.669	0.312	9.993	0.00	0.00
	Gelatine dessert	7	1.249±1.671	0.078	0.00	0.00	0.00

Table 12: Mean and percentile of top 5 popular food items consume per capita for Adult 15-49 year

Food group	Food item	Consumption Per capita (gram/day)			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	307	461.62 \pm 253.9	76.852	970.800
	Noodle, rice	307	21.03 \pm 63.80	0.00	159.00
	Asian-style noodles other than glass noodles	307	12.64 \pm 49.72	0.00	125.00
	Rice grain, polished	307	20.35 \pm 99.95	0.00	130.80
	Cream custard cake	307	1.18 \pm 6.62	0.00	0.00
Vegetables	Green onions	307	2.44 \pm 3.86	0.00	9.78
	Capsicum annum hot cultivars	307	1.98 \pm 3.35	0.00	8.00
	Garlic	307	1.46 \pm 4.74	0.00	7.52
	Shallots	307	1.10 \pm 3.64	0.00	5.83
	Tomatoes	307	2.01 \pm 6.70	0.00	11.12
Meat and meat products	Pig fresh meat	307	15.82 \pm 30.96	0.00	67.80
	Cow, ox or bull fresh meat	307	12.13 \pm 38.21	0.00	76.17
	Chicken fresh meat	307	10.41 \pm 33.71	0.00	67.50
	Water buffalo fresh meat	307	4.12 \pm 18.59	0.00	26.75

	Meat balls	307	1.85±7.90	0.00	15.15
Milk and dairy products	Condensed milk (sometimes with added sugars)	307	0.16±1.46	0.00	0.00
	Yoghurt drinks, including sweetened and/or flavoured variants	307	2.88±25.49	0.00	0.00
Fruit and fruit products	Limes	307	2.73±7.62	0.00	14.50
	Apples	307	13.70±43.83	0.00	120.00
	Tamarind	307	1.94±8.27	0.00	15.20
	Oranges, sweet	307	8.79±28.63	0.00	72.00
	Mangoes	307	9.45±36.46	0.00	69.50
Fish and other seafood	Nile tilapia	307	14.47±34.88	0.00	75.00
	Climbing perch	307	8.08±21.13	0.00	61.50
	Clarias catfish (generic)	307	7.78±21.67	0.00	51.48
	Striped snakehead	307	10.14±30.48	0.00	90.00
	Other frog legs from frogs not belonging to the genus Rana	307	3.94±14.90	0.00	40.53
Egg and egg product	Boiled hen eggs	307	3.56±18.02	0.00	12.20
	Fried hen eggs	307	1.80±11.46	0.00	0.00
	Harden egg products (cooked hen eggs)	307	0.82±6.64	0.00	0.00
	Boiled duck eggs	307	1.19±10.96	0.00	0.00

Fats and oils of animal and vegetable	Soya bean oil, refined	307	1.54±5.13	0.00	12.00
	Pig skin	307	0.75±4.127	0.00	0.50
	Buffalo skin	307	0.09±1.23	0.00	0.00
Fruit and vegetable juices	Vegetable juice	307	8.01±32.33	0.00	50.00
	Coconut water	307	1.43±17.80	0.00	0.00
Herbs, spices and condiments	Flavour enhancer	307	3.37±3.81	0.208	8.67
	Salt	307	5.45±4.51	0.00	13.62
	Fermented fish soup (Nam-pla-ra)	307	6.26±9.81	0.00	24.10
	Coriander leaves	307	0.71±1.49	0.00	4.00
	Paprika powder (hot chilli peppers)	307	0.26±0.66	0.00	1.30
Pulses, nuts and oilseeds	Sesame seeds	307	0.26±1.75	0.00	0.00
	Peanuts	307	0.21±1.57	0.00	0.00
Snacks and desserts	Snacks other than chips and similar	307	1.38±14.78	0.00	0.00
	Mixed cereal-based snacks	307	0.44±4.29	0.00	0.00
Starchy roots and tubers	Sweet potatoes	307	1.42±21.40	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	307	2.542±8.047	0.00	12.60
	Hard candies	307	0.194±1.435	0.00	0.00
	Cocoa beverage-preparation, powder	307	0.259±2.262	0.00	0.00

Table 13: Mean and percentile of top 5 popular food items consume (consumers only) for adult 15-49 year

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of subject	Mean ±SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	296	8.60±4.47	2.913	14.206	17.771	19.732
	Noodle, rice	41	2.81±1.97	0.616	5.596	6.386	9.921
	Asian-style noodles other than glass noodles	26	2.73±2.04	0.958	5.716	8.674	0.00
	Rice grain, polished	20	5.88±5.06	1.054	14.584	14.633	0.00
	Cream custard cake	10	0.66±0.13	0.435	0.883	0.00	0.00
Vegetables	Green onions	170	0.07±0.07	0.008	0.165	0.223	0.263
	Capsicum annum hot cultivars	172	0.06±0.07	0.004	0.143	0.184	0.253
	Garlic	127	0.06±0.14	0.003	0.146	0.190	0.420
	Shallots	79	0.07±0.11	0.004	0.223	0.263	0.522
	Tomatoes	44	0.24±0.20	0.030	0.589	0.713	0.774

Meat and meat products	Pig fresh meat	111	0.81±0.77	0.096	1.456	2.081	3.424
	Cow, ox or bull fresh meat	47	1.41±1.20	0.422	2.735	4.915	5.608
	Chicken fresh meat	43	1.34±1.21	0.218	2.652	4.565	6.338
	Water buffalo fresh meat	28	0.80±0.73	0.102	1.674	2.973	0.00
	Meat balls	23	0.44±0.36	0.061	1.072	1.474	0.00
Milk and dairy products	Condensed milk (sometimes with added sugars)	5	0.17±0.12	0.072	0.00	0.00	0.00
	Yoghurt drinks, including sweetened and/or flavoured variants	4	4.20±1.70	2.736	0.00	0.00	0.00
Fruit and fruit products	Limes	96	0.15±0.24	0.009	0.420	0.623	0.909
	Apples	37	2.20±1.33	0.587	4.872	5.186	0.00
	Tamarind	35	0.31±0.33	0.030	0.870	1.179	0.00
	Oranges, sweet	35	1.40±0.77	0.574	2.808	3.072	0.00
	Mangoes	29	1.67±1.15	0.320	3.626	4.058	0.00

Fish and other seafood	Nile tilapia	68	1.14±0.79	0.227	2.562	3.202	3.754
	Climbing perch	53	0.83±0.48	0.192	1.441	1.724	2.235
	Clarias catfish (generic)	52	0.81±0.62	0.141	1.813	2.377	2.525
	Striped snakehead	40	1.33±0.79	0.306	2.302	3.560	3.847
	Other frog legs from frogs not belonging to the genus Rana	26	0.82±0.48	0.257	1.258	2.207	0.00
Egg and egg product	Boiled hen eggs	19	1.12±1.00	0.070	2.874	0.00	0.00
	Fried hen eggs	10	1.05±0.66	0.418	2.646	0.00	0.00
	Harden egg products (cooked hen eggs)	7	0.60±0.46	0.219	0.00	0.00	0.00
	Boiled duck eggs	4	1.68±0.32	1.237	0.00	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	71	0.12±0.12	0.008	0.282	0.419	0.504
	Pig skin	15	0.27±0.23	0.014	0.763	0.00	0.00
	Buffalo skin	3	0.17±0.14	0.021	0.00	0.00	0.00
Fruit and vegetable juices	Vegetable juice	39	1.09±1.19	0.032	2.886	3.623	0.00
	Coconut water	2	4.04±0.56	3.647	0.00	0.00	0.00

Herbs, spices and condiments	Flavour enhancer	299	0.06±0.06	0.007	0.125	0.158	0.196
	Salt	279	0.11±0.08	0.019	0.213	0.268	0.336
	Fermented fish soup (Nam-pla-ra)	183	0.18±0.20	0.019	0.400	0.557	0.777
	Coriander leaves	108	0.03±0.03	0.004	0.080	0.095	0.159
	Paprika powder (hot chilli peppers)	90	0.01±0.01	0.002	0.036	0.050	0.101
Pulses, nuts and oilseeds	Sesame seeds	15	0.10±0.13	0.013	0.365	0.00	0.00
	Peanuts	10	0.12±0.11	0.008	0.366	0.00	0.00
Snacks and desserts	Snacks other than chips and similar	8	0.92±1.39	0.136	0.00	0.00	0.00
	Mixed cereal-based snacks	5	0.61±0.53	0.070	0.00	0.00	0.00
Starchy roots and tubers	Sweet potatoes	2	4.36±4.59	1.111	0.00	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	106	0.137±0.232	0.010	0.290	0.808	0.981
	Hard candies	8	0.158±0.133	0.040	0.00	0.00	0.00
	Cocoa beverage-preparation, powder	4	0.337±0.090	0.258	0.00	0.00	0.00

Table 14: Mean and percentile of top 5 popular food items consume per capita for older adult ≥ 50 year

Food group	Food item	Consumption Per capita (gram/day)			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	296	429.08 \pm 220.3	107.240	842.275
	Noodle, rice	296	8.03 \pm 37.87	0.00	54.50
	Asian-style noodles other than glass noodles	296	4.96 \pm 23.91	0.00	45.35
	Rice grain, polished	296	44.41 \pm 160.97	0.00	282.65
	Sponge cake	296	0.59 \pm 4.95	0.00	0.00
Vegetables	Green onions	296	2.75 \pm 4.48	0.00	10.71
	Capsicum annuum hot cultivars	296	1.80 \pm 3.85	0.00	8.01
	Garlic	296	1.24 \pm 3.04	0.00	8.00
	Choi sum	296	17.34 \pm 46.27	0.00	84.28
	Bamboo shoots	296	20.22 \pm 47.31	0.00	109.51
Meat and meat products	Pig fresh meat	296	13.82 \pm 27.70	0.00	73.17
	Cow, ox or bull fresh meat	296	9.48 \pm 30.45	0.00	69.50
	Chicken fresh meat	296	8.02 \pm 24.42	0.00	67.50
	Water buffalo fresh meat	296	4.89 \pm 22.20	0.00	45.87

	Duck fresh meat	296	1.66±8.62	0.00	0.495
Milk and dairy products	Condensed milk (sometimes with added sugars)	296	0.63±7.74	0.00	0.00
Fruit and fruit products	Limes	296	1.92±5.58	0.00	11.92
	Banana- Pisang Awak	296	26.68±68.65	0.00	147.00
	Oranges, sweet	296	15.20±45.79	0.00	124.00
	Tamarind	296	3.16±10.72	0.00	25.75
	Apples	296	15.21±52.47	0.00	120.00
Fish and other seafood	Nile tilapia	296	17.63±42.93	0.00	126.15
	Climbing perch	296	11.81±30.94	0.00	78.00
	Clarias catfish (generic)	296	6.35±19.17	0.00	51.48
	Striped snakehead	296	11.51±45.20	0.00	90.00
	Catfishes (freshwater)	296	6.18±27.06	0.00	39.18
Egg and egg product	Boiled hen eggs	296	2.75±14.21	0.00	0.00
	Fried hen eggs	296	0.33±4.01	0.00	0.00
	Harden egg products (cooked hen eggs)	296	0.91±6.407	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	296	1.57±7.14	0.00	10.37
	Pig skin	296	0.64±5.34	0.00	0.00
	Buffalo skin	296	0.467±4.05	0.00	0.00

Fruit and vegetable juices	Vegetable juice	296	3.36±16.04	0.00	15.00
	Fruit / vegetable juices and nectars	296	1.57±14.68	0.00	0.00

Herbs, spices and condiments	Flavour enhancer	296	2.66±1.93	0.056	6.468
	Salt	296	5.13±3.83	.016	12.001
	Fermented fish soup (Nam-pla-ra)	296	5.38±8.78	0.00	18.94
	Coriander leaves	296	1.05±2.13	0.00	4.95
	Fish sauce	296	0.62±1.67	0.00	3.45
Pulses, nuts and oilseeds	Sesame seeds	296	0.14±1.14	0.00	0.00
	Coconut milk (cocos nucifera) liquid	296	3.10±26.94	0.00	0.00
Snacks and desserts	Wafers	296	0.432±4.85	0.00	0.00
	Mixed cereal-based snacks	296	0.31±3.38	0.00	0.00
Starchy roots and tubers	Sweet potatoes	296	2.17±15.96	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	296	2.174±6.614	0.00	12.61
	Cocoa beverage-preparation, powder	296	0.769±4.550	0.00	0.00
	Dessert sauces/toppings	296	2.12±17.75	0.00	0.00

Table 15: Mean and percentile of top 5 popular food items consume (consumers only) for older adult ≥ 50 year

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of subject	Mean \pm SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	286	8.29 \pm 4.20	2.552	13.926	15.584	17.172
	Noodle, rice	18	2.28 \pm 1.66	0.547	5.247	0.00	0.00
	Asian-style noodles other than glass noodles	16	1.60 \pm 0.90	0.548	2.889	0.00	0.00
	Rice grain, polished	36	6.44 \pm 5.59	1.578	14.443	19.986	0.00
	Sponge cake	7	0.47 \pm 0.45	0.036	0.00	0.00	0.00
Vegetables	Green onions	150	0.09 \pm 0.08	0.010	0.209	0.298	0.394
	Capsicum annum hot cultivars	160	0.06 \pm 0.10	0.003	0.153	0.209	0.318
	Garlic	97	0.07 \pm 0.08	0.003	0.169	0.267	0.381
	Choi sum	69	1.32 \pm 1.21	0.135	2.883	3.520	5.201
	Bamboo shoots	65	1.76 \pm 1.25	0.452	3.887	4.784	5.254
Meat and meat products	Pig fresh meat	85	0.86 \pm 0.56	0.109	1.797	2.037	2.067
	Cow, ox or bull fresh meat	44	1.16 \pm 1.02	0.112	2.835	3.815	4.499
	Chicken fresh meat	40	1.14 \pm 0.72	0.207	2.412	2.643	3.301
	Water buffalo fresh meat	25	1.06 \pm 0.87	0.130	2.593	3.528	0.00

	Duck fresh meat	14	0.63±0.38	0.050	1.221	0.00	0.00
Milk and dairy products	Condensed milk (sometimes with added sugars)	5	0.74±0.96	0.162	0.00	0.00	0.00
Fruit and fruit products	Limes	73	0.13±0.15	0.013	0.360	0.484	0.722
	Banana- Pisang Awak	58	2.57±2.03	0.745	5.514	7.605	9.585
	Oranges, sweet	44	1.86±1.29	0.638	3.609	4.633	6.732
	Tamarind	40	0.43±0.34	0.051	0.816	1.016	1.803
	Apples	35	2.48±1.86	0.559	5.960	6.656	0.00
Fish and other seafood	Nile tilapia	64	1.49±1.15	0.104	3.068	4.264	5.384
	Climbing perch	64	0.97±0.75	0.167	2.110	2.455	3.339
	Clarias catfish (generic)	42	0.81±0.56	0.049	1.590	2.233	2.492
	Striped snakehead	37	1.68±1.55	0.145	3.784	5.945	0.00
	Catfishes (freshwater)	25	1.30±1.26	0.073	3.469	4.726	0.00
Egg and egg product	Boiled hen eggs	13	1.12±0.52	0.276	2.084	0.00	0.00
	Fried hen eggs	2	0.73±0.00	0.729	0.00	0.00	0.00
	Harden egg products (cooked hen eggs)	9	0.54±0.46	0.059	0.00	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	46	0.17±0.26	0.017	0.368	0.673	1.484
	Pig skin	10	0.40±0.70	0.002	2.164	0.00	0.00
	Buffalo skin	4	0.63±0.09	0.496	0.00	0.00	0.00

Fruit and vegetable juices	Vegetable juice	32	0.59±0.74	0.007	1.198	2.739	0.00
	Fruit / vegetable juices and nectars	4	1.70±0.61	1.282	0.00	0.00	0.00
Herbs, spices and condiments	Flavour enhancer	283	0.05±0.03	0.009	0.100	0.121	0.135
	Salt	282	0.10±0.07	0.014	0.193	0.241	0.281
	Fermented fish soup (Nam-pla-ra)	184	0.15±0.16	0.020	0.324	0.457	0.630
	Coriander leaves	117	0.04±0.05	0.007	0.092	0.129	0.193
	Fish sauce	61	0.05±0.04	0.007	0.116	0.145	0.191
Pulses, nuts and oilseeds	Sesame seeds	12	0.06±0.07	0.001	0.241	0.00	0.00
	Coconut milk (cocos nucifera) liquid	8	2.24±2.53	0.068	0.00	0.00	0.00
Snacks and desserts	Wafers	3	0.74±0.46	0.232	0.00	0.00	0.00
	Mixed cereal-based snacks	4	0.42±0.41	0.108	0.00	0.00	0.00
Starchy roots and tubers	Sweet potatoes	8	1.66±1.30	0.688	0.00	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	74	0.15±0.18	0.007	0.456	0.568	0.661
	Cocoa beverage-preparation, powder	9	0.47±0.18	0.16	0.00	0.00	0.00
	Dessert sauces/toppings	5	2.59±0.79	1.530	0.00	0.00	0.00

Table 16: Mean and percentile of top 5 popular food items consume per capita for pregnant women

Food group	Food item	Consumption per capita (gram/day)			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	140	404.90 \pm 204.5	107.48	786.78
	Noodle, rice	140	22.44 \pm 57.69	0.00	159.00
	Asian-style noodles other than glass noodles	140	9.01 \pm 38.55	0.00	121.87
	Rice grain, polished	140	41.44 \pm 117.77	0.00	298.56
	Maize	140	5.30 \pm 26.06	0.00	34.83
Vegetables	Capsicum annum hot cultivars	140	1.42 \pm 2.35	0.00	7.55
	Green onions	140	2.18 \pm 3.97	0.00	10.69
	Garlic	140	0.81 \pm 2.02	0.00	4.53
	Shallots	140	0.87 \pm 3.240	0.00	5.00
	Bamboo shoots	140	23.82 \pm 51.52	0.00	145.80
Meat and meat products	Pig fresh meat	140	18.61 \pm 34.88	0.00	68.85
	Chicken fresh meat	140	14.95 \pm 34.95	0.00	101.25
	Cow, ox or bull fresh meat	140	7.54 \pm 22.46	0.00	53.50
	Meat balls	140	2.35 \pm 10.06	0.00	10.00
	Water buffalo fresh meat	140	3.30 \pm 12.80	0.00	34.36

Milk and dairy products	Yoghurt drinks, including sweetened and/or flavoured variants	140	16.74±66.38	0.00	180.00
	Cow milk, whole	140	19.35±92.38	0.00	180.00
	Cow milk, skimmed (low fat)	140	7.71±36.58	0.00	0.00
Fruit and fruit products	Limes	140	1.94±5.66	0.00	13.16
	Apples	140	20.23±50.03	0.00	120.00
	Banana- Pisang Awak	140	21.60±74.48	0.00	147.00
	Tamarind	140	4.30±15.50	0.00	29.21
	Oranges, sweet	140	21.14±61.19	0.00	144.00

Fish and other seafood	Nile tilapia	140	11.06±33.50	0.00	99.31
	Climbing perch	140	7.94±20.48	0.00	60.52
	Clarias catfish (generic)	140	5.30±21.32	0.00	40.19
	Striped snakehead	140	7.62±40.08	0.00	45.00
	Other frog legs from frogs not belonging to the genus Rana	140	3.36±23.72	0.00	8.63
Egg and egg product	Harden egg products (cooked hen eggs)	140	4.23±21.34	0.00	47.50
	Boiled hen eggs	140	4.10±19.22	0.00	47.50
	Fried hen eggs	140	2.44±14.92	0.00	0.00
Fats and oils of animal and	Soya bean oil, refined	140	1.96±5.33	0.00	12.00

vegetable	Pig skin	140	0.53±3.08	0.00	0.00
Fruit and vegetable juices	Vegetable juice	140	9.72±37.00	0.00	74.55
	Juice, orange	140	1.78±17.39	0.00	0.00
Herbs, spices and condiments	Flavour enhancer	140	3.04±3.27	0.00	9.37
	Salt	140	5.27±4.58	0.00	14.52
	Fermented fish soup (Nam-pla-ra)	140	4.57±7.83	0.00	22.36
	Coriander leaves	140	0.95±1.94	0.00	5.65
	Fish sauce	140	1.35±3.39	0.00	8.06
Pulses, nuts and oilseeds	Coconut milk (cocos nucifera) liquid	140	2.04±11.15	0.00	0.47
Snacks and desserts	Snacks other than chips and similar	140	1.76±12.18	0.00	0.00
	Mixed cereal-based snacks	140	0.54±3.07	0.00	0.00
Starchy roots and tubers	Tapioca balls	140	1.93±12.76	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	140	3.266±8.858	0.00	21.19
	Cocoa beverage-preparation, powder	140	0.57±3.34	0.00	0.00

Table 17: Mean and percentile of top 5 popular food items consume (consumers only) for pregnant women

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of subject	Mean \pm SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	135	7.43 \pm 3.53	2.544	12.982	14.191	14.835
	Noodle, rice	25	2.17 \pm 1.37	0.380	3.796	5.902	0.00
	Asian-style noodles other than glass noodles	9	2.66 \pm 1.48	0.852	0.00	0.00	0.00
	Rice grain, polished	23	4.57 \pm 3.68	0.863	8.377	15.637	0.00
	Maize	8	1.70 \pm 1.29	0.399	0.00	0.00	0.00
Vegetables	Capsicum annum hot cultivars	81	0.04 \pm 0.04	0.004	0.101	0.163	0.174
	Green onions	68	0.07 \pm 0.08	0.007	0.190	0.290	0.373
	Garlic	45	0.04 \pm 0.05	0.005	0.110	0.150	0.286
	Shallots	34	0.06 \pm 0.11	0.001	0.204	0.401	0.00
	Bamboo shoots	36	1.69 \pm 1.15	0.294	3.738	4.415	0.00
Meat and meat products	Pig fresh meat	55	0.84 \pm 0.76	0.106	1.355	2.163	4.213
	Chicken fresh meat	33	1.09 \pm 0.84	0.138	2.055	2.765	0.00
	Cow, ox or bull fresh meat	22	0.80 \pm 0.57	0.169	1.613	2.489	0.00
	Meat balls	13	0.43 \pm 0.37	0.070	1.098	0.00	0.00

	Water buffalo fresh meat	12	0.71±0.49	0.178	1.697	0.00	0.00
Milk and dairy products	Yoghurt drinks, including sweetened and/or flavoured variants	11	3.45±1.91	0.347	6.419	0.00	0.00
	Cow milk, whole	9	5.17±3.55	2.393	0.00	0.00	0.00
	Cow milk, skimmed (low fat)	6	3.46±0.34	3.000	0.00	0.00	0.00
Fruit and fruit products	Limes	42	0.11±0.18	0.010	0.257	0.465	1.089
	Apples	28	1.84±1.17	0.290	2.813	4.630	0.00
	Banana- Pisang Awak	24	2.26±2.65	0.631	4.017	11.501	0.00
	Tamarind	24	0.44±0.51	0.013	1.293	1.913	0.00
	Oranges, sweet	23	2.26±1.80	0.530	5.529	6.330	0.00
Fish and other seafood	Nile tilapia	18	1.46±0.82	0.243	2.820	0.00	0.00
	Climbing perch	25	0.78±0.44	0.195	1.573	1.958	0.00
	Clarias catfish (generic)	13	1.00±0.75	0.066	2.347	0.00	0.00
	Striped snakehead	13	1.48±2.20	0.002	5.976	0.00	0.00
	Other frog legs from frogs not belonging to the genus Rana	9	1.03±1.73	0.031	0.00	0.00	0.00
Egg and egg product	Harden egg products (cooked hen eggs)	7	1.56±1.06	0.766	0.00	0.00	0.00
	Boiled hen eggs	7	1.46±0.69	0.685	0.00	0.00	0.00
	Fried hen eggs	5	1.17±0.78	0.481	0.00	0.00	0.00

Fats and oils of animal and vegetable	Soya bean oil, refined	33	0.14±0.15	0.010	0.401	0.623	0.00
	Pig skin	6	0.23±0.19	0.053	0.00	0.00	0.00
Fruit and vegetable juices	Vegetable juice	19	1.22±1.24	0.002	3.431	0.00	0.00
	Juice, orange	2	2.34±1.86	1.033	0.00	0.00	0.00
Herbs, spices and condiments	Flavour enhancer	136	0.05±0.06	0.006	0.096	0.159	0.291
	Salt	129	0.10±0.08	0.014	0.192	0.306	0.385
	Fermented fish soup (Nam-pla-ra)	77	0.14±0.17	0.018	0.340	0.526	0.687
	Coriander leaves	58	0.04±0.04	0.003	0.107	0.147	0.170
	Fish sauce	45	0.07±0.07	0.007	0.206	0.275	0.317
Pulses, nuts and oilseeds	Coconut milk (cocos nucifera) liquid	7	0.71±0.54	0.009	0.00	0.00	0.00
Snacks and desserts	Snacks other than chips and similar	4	1.04±0.65	0.571	0.00	0.00	0.00
	Mixed cereal-based snacks	5	0.28±0.14	0.109	0.00	0.00	0.00
Starchy roots and tubers	Tapioca balls	4	1.22±0.73	0.225	0.00	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	58	0.14±0.25	0.06	0.42	0.69	1.22
	Cocoa beverage-preparation, powder	4	0.40±0.05	0.34	0.00	0.00	0.00

Table 18: Mean and percentile of top 5 popular food items consume per capita for lactating women

Food group	Food item	Consumption per capita (gram/day)			
		Number of subject	Mean \pm SD	P 5	P 95
Cereals	Rice grain, glutinous	146	472.91 \pm 268.6	35.840	898.05
	Rice grain, polished	146	39.32 \pm 147.21	0.00	240.00
	Asian-style noodles other than glass noodles	146	15.06 \pm 53.56	0.00	125.00
	Noodle, rice	146	16.13 \pm 60.58	0.00	159.00
	Glass noodle	146	11.08 \pm 52.33	0.00	73.25
Vegetables	Capsicum annum hot cultivars	146	1.60 \pm 3.56	0.00	8.00
	Green onions	146	1.88 \pm 3.49	0.00	11.07
	Garlic	146	0.99 \pm 2.63	0.00	8.00
	Choi sum	146	14.86 \pm 36.44	0.00	77.000
	Bamboo shoots	146	20.66 \pm 48.60	0.00	147.00
Meat and meat products	Pig fresh meat	146	21.43 \pm 44.73	0.00	96.425
	Chicken fresh meat	146	16.18 \pm 51.81	0.00	93.41
	Cow, ox or bull fresh meat	146	4.41 \pm 16.73	0.00	34.75
	Pig other slaughtering products	146	2.30 \pm 11.29	0.00	17.37
	Water buffalo fresh meat	146	9.60 \pm 31.79	0.00	69.50

Milk and dairy products	Condensed milk (sometimes with added sugars)	146	0.69±5.94	0.00	0.00
	Flavoured milks	146	4.93±47.01	0.00	0.00
Fruit and fruit products	Limes	146	1.18±3.40	0.00	9.13
	Apples	146	11.33±39.07	0.00	109.50
	Banana- Pisang Awak	146	23.26±77.09	0.00	193.23
	Papayas	146	17.02±72.28	0.00	140.00
	Oranges, sweet	146	13.80±42.77	0.00	118.80
Fish and other seafood	Nile tilapia	146	16.19±38.73	0.00	107.02
	Climbing perch	146	9.98±24.39	0.00	61.10
	Clarias catfish (generic)	146	3.95±21.28	0.00	21.45
	Striped snakehead	146	11.53±45.18	0.00	81.77
	Other frog legs from frogs not belonging to the genus Rana	146	6.05±24.87	0.00	58.41
Egg and egg product	Harden egg products (cooked hen eggs)	146	2.34±14.05	0.00	0.00
	Boiled hen eggs	146	1.10±7.67	0.00	0.00
	Fried hen eggs	146	2.38±13.50	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	146	1.84±5.38	0.00	12.00
	Pig skin	146	0.25±1.95	0.00	0.00

Fruit and vegetable juices	Vegetable juice	146	7.39±53.11	0.00	6.27
	Fruit / vegetable juices and nectars	146	2.39±20.62	0.00	0.00
Herbs, spices and condiments	Flavour enhancer	146	2.25±2.16	0.00	6.04
	Salt	146	5.06±3.43	0.241	11.42
	Fermented fish soup (Nam-pla-ra)	146	3.28±6.67	0.00	19.12
	Coriander leaves	146	1.11±2.35	0.00	6.49
	Fish sauce	146	0.61±1.35	0.00	3.47
Pulses, nuts and oilseeds		146	0.16±0.906	0.00	0.79
	Sesame seeds				
	Peanuts	146	0.18±1.78	0.00	0.00
Snacks and desserts	Snacks other than chips and similar	146	1.34±11.06	0.00	0.00
Starchy roots and tubers	Tapioca balls	146	0.46±4.53	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	146	1.12±3.44	0.00	6.78
	Cocoa beverage-preparation, powder	146	0.41±2.84	0.00	0.00

Table 19: Mean and percentile of top 5 popular food items consume (consumers only) lactating women

Food group	Food item	Eater only (gram/kgBW/day)					
		Number of subject	Mean ±SD	P 5	P 90	P 95	P 97.5
Cereals	Rice grain, glutinous	139	9.54±4.80	3.534	15.770	17.621	19.502
	Rice grain, polished	16	6.34±5.32	1.860	15.461	0.00	0.00
	Asian-style noodles other than glass noodles	16	2.63±2.29	0.387	7.016	0.00	0.00
	Noodle, rice	12	3.79±2.02	1.156	6.470	0.00	0.00
	Glass noodle	10	3.13±2.58	0.632	8.102	0.00	0.00
Vegetables	Capsicum annum hot cultivars	57	0.08±0.10	0.006	0.204	0.367	0.459
	Green onions	52	0.09±0.07	0.009	0.241	0.296	0.299
	Garlic	39	0.07±0.07	0.004	0.200	0.262	0.00
	Choi sum	28	1.54±1.01	0.525	3.217	4.292	0.00
	Bamboo shoots	34	1.81±1.44	0.438	4.192	5.020	0.00
Meat and meat products	Pig fresh meat	49	1.24±1.21	0.224	2.256	4.393	6.525
	Chicken fresh meat	29	1.51±1.78	0.432	2.583	6.502	0.00
	Cow, ox or bull fresh meat	13	0.92±0.58	0.232	1.983	0.00	0.00
	Pig other slaughtering products	7	0.86±0.34	0.472	0.00	0.00	0.00

	Water buffalo fresh meat	23	1.20±1.16	0.164	3.565	4.222	0.00
Milk and dairy products	Condensed milk (sometimes with added sugars)	3	0.67±0.29	0.291	0.00	0.00	0.00
	Flavoured milks	2	5.38±2.34	2.347	0.00	0.00	0.00
Fruit and fruit products	Limes	27	0.11±0.09	0.014	0.273	0.336	0.00
	Apples	15	2.20±1.52	0.757	4.991	0.00	0.00
	Banana- Pisang Awak	21	2.92±2.42	0.715	6.971	9.788	0.00
	Papayas	14	2.96±2.76	0.749	8.235	0.00	0.00
	Oranges, sweet	20	1.98±1.63	0.315	3.459	7.433	0.00
Fish and other seafood	Nile tilapia	31	1.45±0.90	0.140	2.839	3.219	0.00
	Climbing perch	30	0.95±0.61	0.155	2.082	2.434	0.00
	Clarias catfish (generic)	8	1.36±1.04	0.286	0.00	0.00	0.00
	Striped snakehead	18	1.82±1.97	0.248	5.568	0.00	0.00
	Other frog legs from frogs not belonging to the genus Rana	12	1.44±1.10	0.184	3.287	0.00	0.00
Egg and egg product	Harden egg products (cooked hen eggs)	6	1.24±1.04	0.154	0.00	0.00	0.00
	Boiled hen eggs	3	1.10±0.31	0.809	0.00	0.00	0.00
	Fried hen eggs	5	1.43±0.54	0.818	0.00	0.00	0.00
Fats and oils of animal and vegetable	Soya bean oil, refined	27	0.19±0.17	0.010	0.544	0.620	0.00
	Pig skin	3	0.20±0.06	0.153	0.00	0.00	0.00

Fruit and vegetable juices	Vegetable juice	9	2.67±4.22	0.10	0.00	0.00	0.00
	Fruit / vegetable juices and nectars	2	3.49±1.11	2.70	0.00	0.00	0.00
Herbs, spices and condiments	Flavour enhancer	116	0.05±0.04	0.005	0.108	0.133	0.159
	Salt	140	0.10±0.06	0.015	0.198	0.252	0.279
	Fermented fish soup (Nam-pla-ra)	53	0.17±0.17	0.007	0.385	0.498	0.832
	Coriander leaves	44	0.06±0.05	0.005	0.149	0.223	0.226
	Fish sauce	37	0.04±0.03	0.004	0.091	0.123	0.00
Pulses, nuts and oilseeds	Sesame seeds	9	0.05±0.05	0.008	0.00	0.00	0.00
	Peanuts	2	0.28±0.24	0.114	0.00	0.00	0.00
Snacks and desserts	Snacks other than chips and similar	3	0.94±0.61	0.50	0.00	0.00	0.00
Starchy roots and tubers	Tapioca balls	2	0.48±0.33	0.255	0.00	0.00	0.00
Sugar and confectionary (including cocoa products)	Refined cane sugar	36	0.08±0.10	0.005	0.291	0.368	0.00
	Cocoa beverage-preparation, powder	3	0.34±0.008	0.333	0.00	0.00	0.00

4.5 Energy intake

Every life stage group, including lactating and pregnant women, have a significantly lower energy intake than recommended for active people whereas energy intake for infants 3-11 month was adequate. Furthermore, the energy intake hardly differs between men and women, while men generally have higher energy requirements. Significant difference in energy intake is found between region, Especially it is generally higher in Mekong corridor than two other regions.

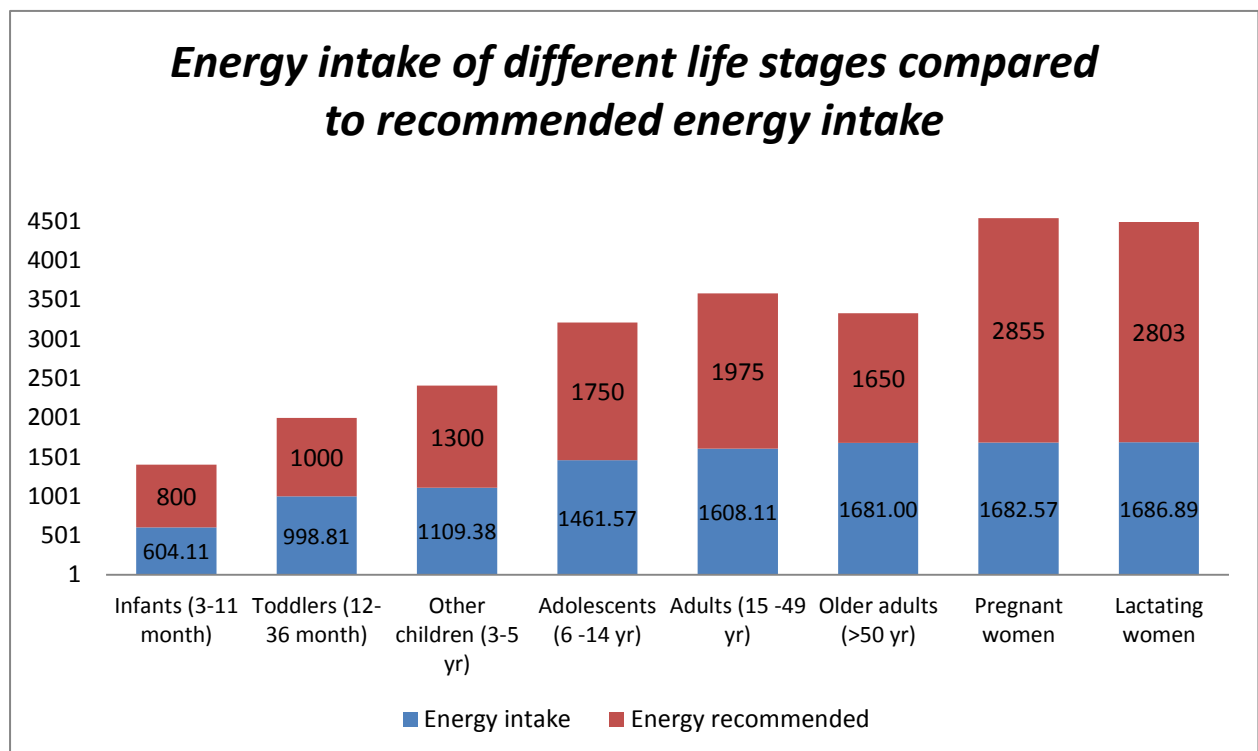


Figure 10: *Enegy intake of different life stages compared to recommended energy intake*

4.6 Contribution of food groups to energy intakes

The energy intake for all life stage groups mainly comes from carbohydrates, protein and fats. Data indicate that carbohydrate consumption, are largely derived from rice, and have reached 69 percent, compared with a World Health Organization (WHO)-recommended maximum of 75 percent.

The proportions that proteins contribute to the total energy intake are sufficient compared to the recommended ranges for all life stages.

Moreover, intake of essential fatty acids is 17 percent, compared with a recommended level of 15 percent. It was found that the proportions that fat contribute to the total energy intake was lower than recommended for all life stages, except for children under 3 years at the figure 11

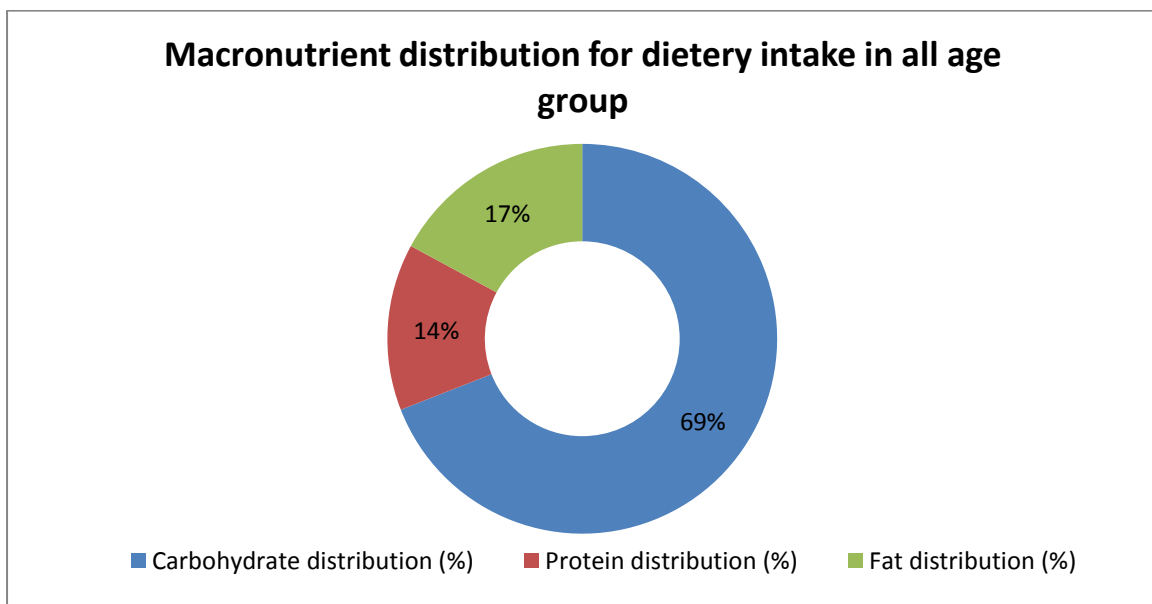


Figure 11: *Macronutrient distribution for dietary intake in all life stage*

V. Conclusion

This report discusses the food consumption of Lao people that was carried out from September 2016 to May 2017. Foods and beverages consumed daily by the population were determined and the consumption patterns of food items consumed daily by a majority of the population were established.

Popular food items consumption in all life stage were display. The majority of popular food items consumption are not differed among all life stage, the diet of all life stage was mainly based on cereals, meats and vegetables. The rice (rice glutinous, polished, and steamed) is the staple food of most people in Lao PDR and the result indicated that rice is a highest consume. On the contrary, children under 3 had highest quantity intake of milk and milk product compared with other food group.

The majority of the Lao people consumes rice as the major source of carbohydrate. They consumed at least twice a day with an average intake of 129.02 g per meal. Other food items eaten everyday with small amount.

Energy intake in the Lao people is significant lower than recommended for all life stage, except during infancy. Furthermore, the proportion that carbohydrates contribute to the total energy intake is high and the proportion of fat and protein is sufficient.

VI. Recommendation

There is need to prepare and update a Lao Food Composition Table. This will enhance future food security analysis and other nutrient analysis for the diagnostic of micronutrients deficiencies in the population.

Apply for risk assessment for food intake is needed for further study. The risk assessment process consists of four parts: 1) Hazard identification. 2) Hazard characterization. 3) Exposure assessment 4) Risk characterization.

VII. Additional plan

The results of this survey will be made available on the FAO/WHO GIFT and FAO/WHO CIFOCC platforms.

At global level, FAO/WHO CIFOCC currently includes summary statistics from 37 food consumption surveys lasting at least 2 days conducted in 26 countries (including 17 EU countries) and presenting mean, standard deviation, high and low percentiles (P5, P10, P50, P90, P95) in total population and consumers only at a refined level of food categorization (about 500 items).

FAO/WHO GIFT consists of a global database, containing individual quantitative food consumption data from any country disregarding their level of income, made freely accessible online through an interactive web platform. FAO/WHO GIFT aims to be a multipurpose tool, providing information on specific indicators in the field of nutrition, food safety and environment, in addition to data on food consumption.

We would like to thank the project supported by the Codex Trust Fund “Harmonizing individual food consumption data in ASEAN” that aims at increasing and harmonizing individual food consumption data and exposure assessment in selected ASEAN countries in the Codex Asian region. The ultimate aim is to improve the assessment of nutrient intake and dietary exposure to chemical and biological agents in food (supporting national and international Codex standard-setting).

Visit more at:

<http://www.fao.org/gift-individual-food-consumption/en/>