EXECUTIVE SUMMARY

The 2014 Total Diet Study (SDT) was included in the community-based National Health Research (Riskesdas) carried out by the Health Research and Development Agency, Ministry of Health of the Republic of Indonesia. The study encompasses two major activities, namely the Individual Food Consumption Survey (SKMI) and the Analysis of Food Chemical Contamination (ACKM). The SKMI aimed to gather comprehensive data on individual food consumption, which served as a basis for carrying out ACKM activities. The ACKM aimed to determine the level of exposure to chemical compounds in the food consumed by the population. This report specifically details the outcomes of the SKMI.

The 2013 Riskesdas revealed an increase in non-communicable diseases (NCDs) and persistently high levels of nutritional problems in the society, which are believed to be linked to changes in food consumption patterns. Therefore, it is essential to carry out SKMI as part of SDT activities.

SKMI aims to obtain information about the description of the dietary habits of the population, including the level of nutritional adequacy of the population. In addition, it provides information on cooking methods, processes and tools used, along with a list of food ingredients for ACKM purposes.

SKMI is the first national-scale survey in Indonesia that gathers comprehensive data on individual consumption. The survey was carried out in collaboration with universities, the Central Statistics Agency, provincial and regency/city health services, and received technical assistance from the World Health Organization (WHO) and the International Life Science Institute (ILSI). The implementation of SKMI is fully funded by the Indonesian Government.

The SKMI research design is a cross-sectional study that covers a total of 191,524 individuals living in 51,127 households (RT) across 2,080 census blocks (BS) in all provinces and districts/cities in Indonesia. The individual food consumption survey was conducted in 2014 and in 2015 continued with ACKM activities. The data that has been successfully analyzed comes from 2,072 BS, 45,802 RT, and145,360 individuals.

SKMI uses standard data collection methods that are widely used. The collected data includes information on menus, types and weights of food, cooking methods, and cooking tools. The data was collected by interviewing individuals about food consumption the day before. The interviews were carried out using food consumption data collection guidelines for assistance.

During the process of collecting data, various obstacles were encountered. Population mobility resulted in a reduced number of people who could be visited, and a less conducive security situation made it impossible to reach the location of the census block.

The results of the 2014 SKMI analysis indicate that the consumption level of food ingredients, categorized by the type and food group, has an impact on nutritional intake, the level of individual energy, and protein adequacy. The complete results are as follows:

1. Rice is the most consumed staple food in Indonesia, accounting for 97.7% of the population's consumption with an average of 201.3 grams per person per day, followed by wheat and its processed products which are consumed by around 30.2% of the population with a

consumption of 51.6 grams per person per day. Types of tubers and their processed products are in the third place with consumption of 27.1 grams per person per day and consumed by around 19.6% of the population. However, tubers, which are generally locally produced, are consumed in the smallest quantities by the population when compared to rice and wheat.

2. In terms of animal protein, fish and processed fish are the most consumed food, with an average consumption of 78.4 grams per person per day. This is followed by meat and processed food, with an average consumption of 42.8 grams per person per day. Other animal protein sources, such as eggs and processed foods are consumed less frequently, at an average of 19.7 grams per person per day, and milk and processed food are consumed at less than 5 grams per person per day. The offal group is consumed the least, at an average of 2.1 grams per person per day. In contrast, the population consumes more vegetable protein, with nuts and processed nuts and cereals and processed foods being consumed at an average of 56.7 grams and 257.7 grams per person per day, respectively. Soybeans and rice are the dominant sources of protein in the diet, with 47.4 percent and 97.7 percent of the population consuming them, respectively. Therefore, vegetable protein sources are the primary sources protein in the Indonesian population's diet.
3. The population's consumption of vegetables and processed products as well as fruit and processed products is still low, at an average of 57.1 grams per person per day and 33.5 grams per person per day, respectively. Among vegetables, green vegetables were consumed the most (79.1%) compared to others. When it comes to fruit and processed group, bananas are the most commonly consumed (15.1%). Unfortunately, insufficient consumption of vegetables and fruit negatively affects the supply of vitamins and minerals required by the body.
4. The average daily consumption of oil, fat, and processed group is 37.4 grams per person per day. The most consumed commodities in this group are palm oil and coconut oil (19.7 grams/person/day). Most of the Indonesian population (92.6%) consumes palm oil and coconut oil, followed by coconut and its processed products (29.4%) and other oils (7.1%).
5. The consumption of the sugar and confectionary group of the Indonesian population is 15.7 grams per person per day with the most consumed in this group is white sugar/granulated sugar (13.6 grams/person/day). Granulated sugar is consumed by the majority of the Indonesian population (66.6%), followed by other food ingredients, candy and chocolate with a range between 2.3 to 2.8 percent and the lowest is syrup (1.2%).
6. Consumption of the spice group of the Indonesian population is 20.4 grams per person per day. The most consumed spice is wet spices (14.3 grams/person/day), followed by salt (3.5 grams/person/day). The least consumed spices are additional ingredients with less than 1.0 gram per person per day. Almost all Indonesians consume salt (96.3%), followed by wet spices (84.1%), MSG (50.3%), and additives (1.3%).
7. The Indonesian population's consumption of powdered drinks is 8.7 grams per person per day. Instant tea/dry leaves are consumed the most (31.2%), followed by ground coffee (25.1%) and powdered drinks are the lowest (5.9%). The highest individual daily consumption is ground coffee (6.0 grams/person/day), followed by dry leaf instant tea (1.6 grams/person/day) and powdered drinks (1.2 grams /person/day). Powdered drinks are the most consumed drinks among people aged between 0-59 months to the age group 13-18 years.
8. The Indonesian population's consumption of liquid drinks is 25.0 ml per person per day. The number is generated from packaged drinks (19.8 ml/person/day), carbonated drinks (2.4 ml/person/day), alcoholic drinks (1 ml/person/day), and others (1.9 ml/person/day). Liquid

bottled drinks are consumed by 8.7 percent of the population, followed by other drinks (1.8%), carbonated drinks (1.1%), and the lowest are alcoholic drinks (0.2%). Liquid packaged drinks are the most consumed drink in all age groups, including the toddler group.

9. The total fluid consumption of the Indonesian population is 1,317 ml per person per day which encompasses drinking water 1,146 ml per person per day, branded bottled water 146 ml per person per day, and liquid drinks (25 ml/person/day). Fluid consumption in population aged 19-55 years(adults) almost reaches 1.5 litters.
10. Consumption of composite food groups, supplements including herbal medicine is very small, at an average of less than 1.0 grams per person per day, and consumed by less than 1 percent of the population.

Nutritional intake and adequacy

1. More than half of toddlers (55.7%) have an energy intake that is lower than the recommended Energy Adequacy Rate (AKE). The proportion with very low energy intake (< 70% AKE) is 6.8 percent and low energy intake (70 - < 100% AKE) is 48.9 percent. On the other hand, 17.1 percent of toddlers were found to consume greater energy than the recommended Nutritional Adequacy Rate (AKG) (>130% AKE).
2. Nationally, the population with a very low energy adequacy level (< 70% AKE) is 45.7 percent, a low energy adequacy level (70 - < 100% AKE) is 33.9 percent, an energy adequacy level according to the AKG (100 - 130% AKE) is 14.5 percent, and above the AKG (≥130%) is 5.9 percent.
3. In national level, the highest level of protein adequacy per person per day is observed in the age group of 0-59 months (134.5% AKP). It is followed by the age group of 5-12 years (115.9% AKP), 19-55 years (107, 2% AKP), >55 years (93% AKP), and the lowest is in the group of 13-18 year (89.5% AKP). The population with a very low level of protein adequacy (100% AKP) is 46.5 percent.
4. The average levels of energy and protein adequacy in the adolescent age group (13-18 years) are 72.3 percent and 82.5 percent, making it the lowest compared to the other four age groups. The proportion of teenagers with a very low level of energy sufficiency (<70%) is 52.5 percent, which is the highest compared to the other four age groups.
5. Nationally, as many as 4.8 percent, 18.3 percent and 26.5 percent of the population consume sugar, sodium, and fat above the message of Minister of Health Regulation Number 30 Year 2013.
6. Energy and protein adequacy in pregnant women requires attention, especially in rural areas. Pregnant women with very low levels of energy adequacy (<70% AKE) in rural areas is 52.9%, while in urban areas is 51.5%. Only 14.0 percent of pregnant women with energy adequacy levels ≥100 percent AKE, both in urban and rural areas. Pregnant women with very low levels of protein adequacy (<80% AKP) is 55,7 percent in rural areas and 49,6 percent in urban areas.
7. The contribution of fat to total energy intake is 27.4 percent, slightly above the figure recommended by the Balanced Nutrition Guidelines.

All SKMI results can be used as inputs for health evaluation and planning, especially in the field of nutrition at the central and regional levels.

Recommendations

1. Considering that local staple food sources (tubers) are less consumed by the population compared to imported staple foods (flour and its processed products) and the high number of people who are unable to meet energy requirements, it is necessary to develop aimed at diversifying staple foods based on locally available options.
2. As the current contribution of protein from marine products remains small compared to its potential, policies should be implemented to increase the use of marine products as a source of animal protein for the population
3. Considering that consumption of vegetables and fruit is still low, it is necessary to develop policies to increase consumption of vegetables and fruit through education and by making them more available at affordable prices.
4. Considering the increasing consumption of packaged drinks by children, both powdered and liquid, policy development to protect children from excessive consumption of packaged drinks is necessary.
5. Considering that some people consume sugar, salt and oil/fat above the requirements stated in the Minister of Health Regulation Number 30 Year 2013, it is necessary to increase public understanding about the risks of excess sugar, salt, and oil/fat consumption through education or campaigns.
6. Considering that many teenagers are reported to experience a lack of energy and protein intake, it is necessary to increase teenagers' nutritional knowledge through school health efforts (UKS).
7. Considering that many pregnant women experience energy and protein deficiencies, it is necessary to formulate policies to prevent LBW babies and stunting by providing additional foods to pregnant women that focuses not only on micronutrient needs but also includes macronutrient needs.
8. Considering the high proportion of young population ranging from toddlers to teenagers with low energy adequacy levels (%AKE) and protein adequacy levels (%AKP), the government needs to increase food and nutrition security programs.
9. Considering that nearly 20 percent of toddlers have an energy adequacy level of more than the AKG (>130% AKE), the government must provide education on excess energy intake to prevent obesity, which is a risk factor for non-communicable diseases (NCDs).
10. Further analysis is required to examine specific concerns for children under five years old regarding exclusive breastfeeding, MPASI, and the types of complementary feeding for infants aged 6-11 months and 12-23 months.