Key Message 15

Educate Children on the Use of Nutrition Information on Food Labels

1.0 TERMINOLOGY

Food label

A food label includes any tag, brand, mark, pictorial or other descriptive matter, written, printed, stencilled, marked, painted, embossed or impressed on or attached to or included in, belonging to or accompanying any food (MOH, 1983).

Nutrition claims

Nutrition claim is any claim made on a label of a food product pertaining to its nutritional quality (FSQD, 2010).

Nutrition information

Nutrition information on food labels is often taken to include two types of information, namely nutrition label and nutrition claims.

Nutrition label

Nutrition label is a listing of the level of nutrient(s) as displayed on the food label. It is meant to provide factual information about the nutritional content of the product (FSQD, 2010). It is also known as a nutrition information panel (NIP).

Nutrition information panel (NIP)

The nutrition information panel (NIP) or a nutrition label is a table found in one section of a food label declaring the amount of energy, carbohydrate, protein and fat, as well as vitamins and minerals contained in the food (FSQD, 2010).

Pre-packaged food

Pre-packaged food is food packaged or made up in advance in a container, ready for offer to the consumer, or for catering purposes. A package includes anything in which or any means by which food is wholly or partly cased, covered, enclosed, contained, placed or otherwise packed in any way whatsoever and includes any basket, pail, tray or receptacle of any kind whether opened or closed (MOH, 1983).

2.0 INTRODUCTION

The National Plan of Action for Nutrition of Malaysia (NPANM) (2006-2015) (NCCFN, 2006) has identified several targets aimed at reducing the prevalence of nutrition disorders among children, including protein-energy malnutrition, micronutrient deficiencies and overweight and obesity. Several strategies and intervention programmes have been identified in NPANM, including those to promote healthy eating and active living among children. Educating children

to make appropriate food choices have been recognised as an effective long term strategy towards promoting healthier food consumption pattern. One of the ways of doing this would be to encourage children to make use of the nutrition information on food labels to make appropriate choices when selecting pre-packaged foods.

The habit of reading food labels, including the nutrition information on such labels, should be inculcated from childhood. Young children can be guided into understanding the information, while older children can read the information themselves. Such habits will be able to in identifying the nutrients contained in a package of food and guide them in making better food choices. For example, children can learn not to choose pre-packaged foods high in fat, sugar, salt while preferring to make more frequent choices of foods high in vitamins, minerals and fibre. The best place to learn about nutrition information on food labels would be in grocery stores, minimarkets and supermarkets. Parents can bring their children along when they go shopping and have them try some of the simple exercises at the stores. For example, when shopping for breakfast cereals, let the children first choose a product that they like, then the parents can explain and teach them to select breakfast cereals based on the nutrition information on the labels.

Nutrition labels and nutrition claims are available on pre-packaged foods regulated by the Ministry of Health Malaysia. All those involved in providing nutrition education to children should include such information as one of the ways of improving eating habits. It is vital that such basic tools of food choices be taught to children at a young age. Make use of the recommendations and notes in these guidelines on how to educate children on the use of such information.

3.0 SCIENTIFIC BASIS

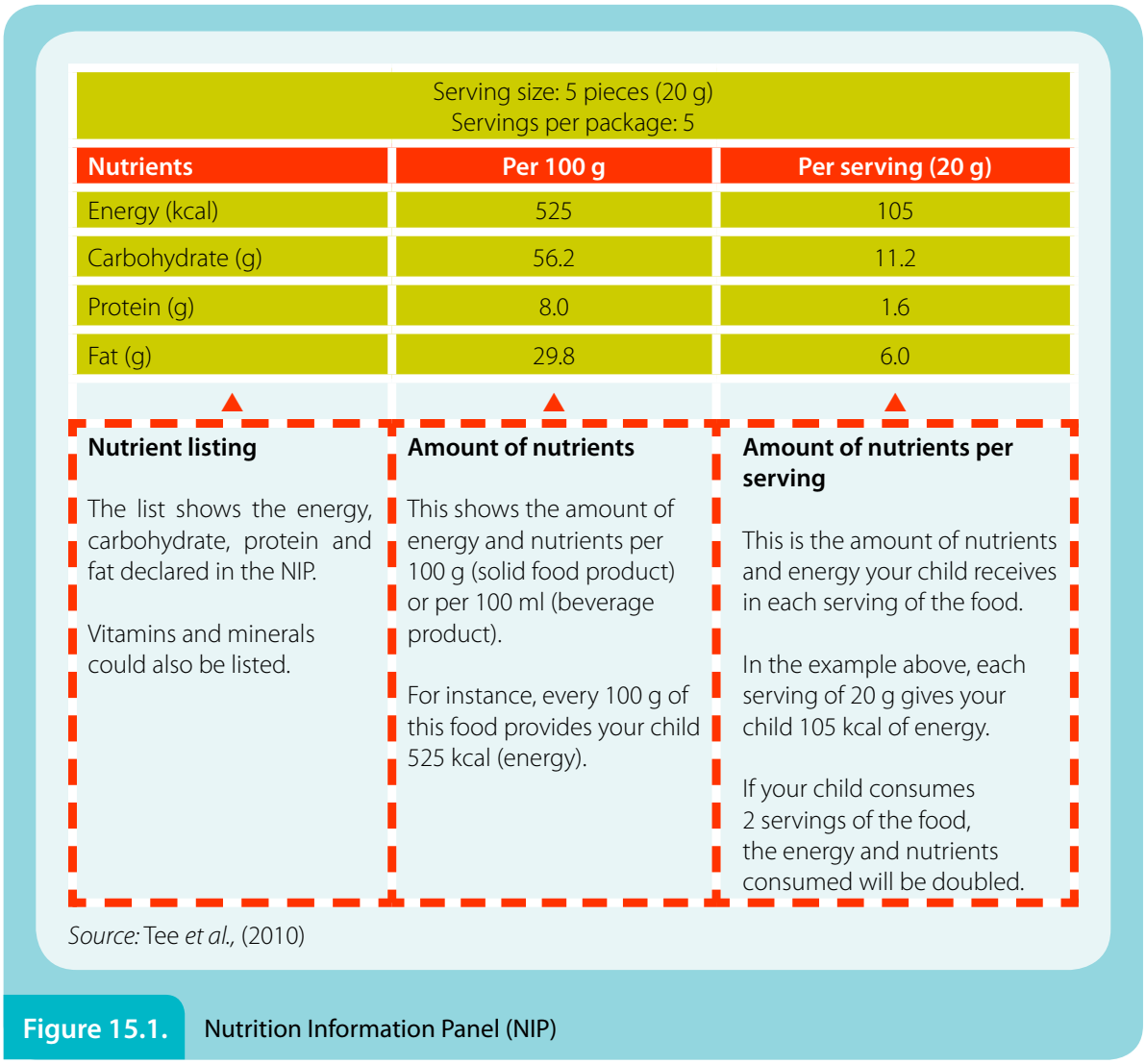
3.1 The importance of nutrition information on food labels

Nutrition labels or NIP is a table found on the label of a pre-packaged food, showing the amount of energy, carbohydrates, protein and fats, as well vitamins and minerals contained in the products. Reading the nutrition label on food packaging enable us to know how much nutrients is consumed in the pre-packaged food. Such information also enables us to compare the nutritional content among different brands and find out which ones are higher or lower in certain nutrients.

NIP consists of three main parts (Figure 15.1). In the first part of nutrient listing, it shows the energy, carbohydrate, protein and fat declared in the NIP. Vitamins

and minerals may also be listed in the NIP. In the second part, the amounts of energy and other nutrients are listed per 100 g (for solid foods) or per 100 ml (for beverages). For instance, every 100 g of food in this example (Figure 15.1) provides your child with 525 kcal (energy). The third part of the NIP presents the amounts of nutrients per serving, that is the amounts of nutrients and energy your child receives in each serving of the food (Tee *et al.,* 2010).

A child's body has multiple needs and requires a host of nutrients and their diet should comprise adequate balanced mix of cereals and products, vitamins-rich fruits and vegetables, milk and milk products, meat, fish and eggs, as well as protein and dietary fibre-rich legumes. Reading nutrition labels can help children to compare foods and find the foods that have the nutritional value according to their needs. Nutrition labels can help them to limit the amount of fat, sugar, sodium and cholesterol in their diet by making it easy for them to compare one food item with another and choose the one with lower amounts of these nutrients. Conversely, they can use food labels to find food items higher in minerals, vitamins, fibre and protein (Whitney & Rolfes, 2002).



Source: Tee *et al.,* (2010)

Figure 15.1. Nutrition Information Panel (NIP)

In a study of 301 African-American adolescents (aged 10 to 19 years old) in the United States of America, Huang *et al*., (2004) observed that almost 80% of subjects reported sometimes or always reading nutrition labels, a proportion similar to that reported for adults. It was also found that more females than males read nutrition labels, as observed in other studies. The investigators felt that there could be a lack of understanding of label information or inability of the adolescents to translate the information into practical use. It was felt that despite being increasingly read, the rate of comprehension and accurate use of nutrition labels remain low even in adults. Therefore, though nutrition labelling may potentially yield significant benefits, early education that takes into account gender specific issues is clearly needed to help the public better understand and use nutrition labels.

There are no local studies that investigate various aspects of the understanding and use of nutrition labels among Malaysian children. There is therefore a lack of information on how children in the country perceive such nutrition information, their understanding as well as potential use.

3.2 Nutrition labelling and food purchasing

Nutritional labelling has emerged as an important aspect of consumers' decision of purchasing pre-packaged foods. If trustworthy nutritional labels are available, nutritional labels could assist the consumer in making better choices during food purchases. The regulatory environment in some countries has long recognised the potential of standardised on-pack nutrition information and has mandated the presence of nutritional labels on all processed food products. In many countries, nutrition labelling is voluntary on almost all pre-packaged foods. In Malaysia, for example, it has become compulsory since 2003 to state the content of energy, protein, carbohydrate and fat for most pre-packaged foods (MOH, 1985). Nutritional content in food products is considered to be a credence attribute.

Drichoutis, Lazaridis & Nayga, (2006) synthesised the findings of nutritional labels into studies that spanned almost two decades. Various aspects were studied, including the determinants of label use, the debate on mandatory labelling, the label formats preferred by consumers and the effect of nutrition label use on the purchase and dietary behaviour. These reviewers found that in general, nutritional label use affects purchasing behaviour mainly because it influences valuations and perceptions of the product and consumers want to avoid the negative nutrients in food products. In addition, health claims have been found to create favourable judgements about a product. For example, when a product features a health or nutrient content claim, consumers tend to view the product as healthier and are more likely to purchase it.

The review also showed that most empirical research suggests that provision and use of information can significantly change dietary patterns (Drichoutis, Lazaridis & Nayga, 2006). Several studies have found that nutritional label use contributes to a better dietary intake or to reduced consumption of 'unhealthy' foods. Nutritional label used is also associated with diets high in vitamin C, low in cholesterol and lower percentage of calories from fat. Other studies have found nutritional label use to increase dietary quality of consumers, with higher improvements detected when health claim information was used.

In a study in Denmark, Norgaard & Brunso (2009) found that when children are taken shopping

for food, parents discuss evaluation and choice of food with their children and children help to choose food products. Children might influence their family's purchase of food and if they are taught to use nutritional information and become more involved in health, they might supply their parents with ideas for healthier food (Norgaard & Brunso, 2009). The type of foods that parents choose to purchase and feed their children can have influence on children's body weight. The study also showed that families do not plan their food shopping before going to the shops. Many decisions are made at the shelves and parents as well as the children use information on food labels to make food choices (Norgaard & Brunso, 2009).

The habit of reading these nutrition labels should be taught since childhood. This can be achieved by reading the nutrition labels and paying attention to what is contained in the packaging and emphasizing that one of the ways to prevent degenerative diseases is to limit the intake of fat, sugar, sodium and cholesterol and increase fibre (Drichoutis, Lazaridis & Nayga, 2006).

3.3 Teaching NIP to children and adolescents

Childhood is a period of continuous education about healthy eating including good nutrition. Appropriate use of food is important in establishing lifetime nutrition practices (NHMRC, 2003). Nutrition information on food labels has been recognised as one of the strategies adopted to assist consumers in adopting healthy dietary practices (WHO, 2004). NIPs can provide children a general idea about the types of nutrients, serving size and calories in a single serving of food. Older children and teenagers can also use NIPs to compare the nutrient content between different foods, thus helping them to choose of healthier versions of foods.

The impact of nutrition information on food choices is important in considering how young adolescents develop personal eating behaviours. Study by Hawthorne *et al*., (2006) in Houston, USA demonstrated that after a teaching session, NIP label can be an effective educational tool to increase nutrition knowledge in young adolescents. This study showed that young adolescents successfully learned how to read and understand NIP labels through educational sessions. The investigators felt that such an educational program could readily be implemented in a variety of settings, including schools and community educational settings. This type of educational programme can be a part of larger programmes designed to decrease the incidence of overeating high-calorie foods and development of obesity.

4.0 CURRENT STATUS

Nutritional label use has been found to influence food purchases, nutrient intake and dietary quality among adults in other countries (Kim, Nayga & Capps, 2000; Kim, Nayga & Capps, 2001; Teisl & Levy, 1997). However, since the gazettement of nutrition labels and claims regulation in 2003 in Malaysia, there has been no national survey on the use of NIP among children and adolescents.

Nutrition education is incorporated into the primary and secondary school curriculum in various subjects, including Physical and Health Education, Malay and English language as well as Science subjects. Besides that, there are currently a few nutrition education programmes carried out by various institutions and organisations which undertake to teach young children good eating habits and healthy food choices such as 'Healthy Schools Programme' and 'Healthy Lifestyle in Children' (Poh, 2005; Ruzita, Wan Azdie & Ismail, 2007).

There is, however, no information on nutrition labelling and claims in most of these educational materials for children. Recognising the importance of imparting such nutrition information on food labels to children, Nutrition Month Malaysia has included such information, especially understanding nutrition information panels in several of its various publications targeted at children. These include 'Raising Healthy Eaters' (Tee *et al*., 2009a), 'Easy Nutrition Planner' (Tee *et al*., 2009b) and 'Smart Nutrition' (Tee *et al*., 2010). There has to be greater efforts in educating children on the use of such information, to establish a good foundation in understanding food choices.

Nutrition information on food labels has been included in the curriculum of secondary schools. Greater efforts should be made to teach such information in interesting and practical ways, e.g. through Health and Physical Education session. Experiences in other countries have shown that it is important to impact such information to children at a young age.

5.0 KEY RECOMMENDATIONS

Key recommendation 1

Educate children on the nutrition information found on food labels.

How to achieve

1. Inculcate the habit of reading all nutrition information to make healthier choices from young.
2. Encourage awareness among friends and family and share label reading tips for healthier choices.
3. Find opportunities to read together nutrition information on food labels.
4. Explain how to look out for healthier options of food products to the children.
5. Encourage children and adolescents to read the nutrition information by themselves.

Key recommendation 2

Create various opportunities to educate children about the nutrition information on food labels.

How to achieve

1. Talk about nutrition and food choices during daily activities, for example during meal times at home, at the restaurants or shopping at the supermarket.
2. Prepare shopping lists and include healthier food items.
3. Parents should take time to read food labels during grocery shopping with their children.
4. Use the nutrition information in the menu when available to select foods with lower calories, fat, sugar and sodium.

Key recommendation 3

Explain the components in the Nutrition Information Panel (NIP) for older children.

How to achieve

1. Show ways to read the NIP as follows:
    i. Determine the serving size (in g or ml as stated on the packet).
    ii. Find out the number of servings in the packet.
    iii. Show the child the three main columns of the NIP:
        a) the nutrient listing;
        b) nutrients per 100 g/ 100 ml and
        c) nutrients per serving.

2. Teach how to calculate the nutrients consumed when taking more than 1 serving.
3. Explain the basic functions of energy and the key nutrients such as carbohydrate, protein and fat.
4. For certain components which are not commonly found on NIP such as sugar, check the ingredient listing to determine the presence of these components.

Key recommendation 4

Explain the meaning of 'Nutrient Content Claim' and 'Nutrient Comparative Claim'.

How to achieve

1. Familiarise the children with the example of nutrient content claim such as 'low-sugar', 'low sodium' or 'high in calcium' and nutrient comparative claim such as 'reduced fat', 'less sodium' or 'more vitamin C'.
2. Encourage the children to pick up foods which carry words 'source of', 'high in', 'more', 'extra' or 'increased' nutrients such as vitamins, minerals or dietary fibre.
3. Encourage the children to pick up foods which carry words such as 'low in', 'free of', 'reduced', 'less', 'fewer' or 'light' sugar, fat, cholesterol or sodium (salt).

Key recommendation 5

Make nutrition labeling education as part of school activities.

How to achieve

1. Strengthen the nutrition labelling component in the school curriculum.
2. Show the children the basics of the nutrition information panel and explain how a healthy diet is made up of different kinds of foods and nutrients.
3. Explain that food ingredients on the label are listed in descending order of weight.
4. Use interactive games and resources to reinforce basic nutrition concepts.
5. Be positive. Make it fun, rather than a source of arguments over choosing the products.

6.0 ROLE OF PARENTS, CAREGIVERS AND TEACHERS

It is important for parents to start teaching how to read food labels in children since childhood. Teaching nutrition information to children at a young age encourages healthy habits in the future. Many opportunities can be created for such teaching sessions and they do not have to be formal in nature. Parents can be a role model for their children in choosing a healthy food (USFDA, 2007a). Parent can teach their children comparing products using quantity per serving and quantity per 100 g, explain to their children on the NIP while do shopping and going through each part of the nutrition label with examples of healthy and unhealthy contents.

Moulding and changing children's behaviour takes effort, but the reward of a healthy, energetic child make all the work worth the battle. Consistent encouragement and patience will ultimately steer their palettes on the path to a healthier and brighter future. Family, school and community-wide efforts are needed to promote healthful eating patterns and food choices among adolescents (Roxanne, 2011).

The aim of reading food labels as well as understanding the food pyramid should be strengthening as part of the said curriculum or be integrated in the campaign carried out in schools. Early childhood educators have the opportunity to improve children's food choices because they interact with children daily. Interactive lesson plans should be used to attract the children's attention (Birch & Fisher, 1998).

Family members and teachers can influence the food preferences of young children by providing healthy food choices, offering multiple opportunities to prepare and eat new foods and serving positive role models through their own food choices. As influential role models for their children, parents are in a key position to reinforce and urge their kids to look for, read and think about the NIP on food packaging and use mealtime and grocery shopping as a means to teach kids to read labels together and discuss healthy eating habits (USFDA, 2007b). As a parent, understanding what all that information means will help you make healthier food choices for your child. In turn, it helps to meet his nutritional needs, while limiting the amount of unnecessary fat and sugar in his diet (Zaitun & Mahenderan, 2011).

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APPENDICES

Appendix 1. Tips on using the Nutrition Information Panel (NIP)

Tips on using the NIP:

(a) Consider all components in making food choices

i. Look at the amount of energy and other nutrients in the food. Consider how these nutrients contribute to the total daily intake and the nutritional needs of your growing child.
ii. Make food choices based on the overall nutrient content of a food, not merely on one or two nutrients.

(b) Compare nutritional value of different brands of similar foods

i. The NIPs of different brands of a similar food can be used to determine which ones are higher or lower in certain nutrients.
ii. Always compare based on 100 g or 100 ml of the products. Serving sizes may not suitable as they may differ between brands.
iii. Compare the content of all the nutrients on the labels of the different brands available for the same food item, not just the level of one nutrient.

Source: Tee et al., (2010)

Appendix 2. Example of some instructions/ activities that can be used to educate children in reading the Nutrition Information Panel by parents, caregivers or teachers

1. Look at the serving size on the box of food (e.g. cereals).
2. Give your child a measuring cup to measure out a serving size of the cereal. This will familiarise your child with what a serving size looks like.
3. Discuss with the child the difference between calories and fats. Examples of things you can tell the child are that you need calories and fats to survive and they can be very positive when eaten correctly. They give the body energy and endurance, along with carbohydrates. When a food has more calories, carbohydrates and fat than a body burn can within a day they can cause weight gain.

4. Ask the child to locate calories and fat on the nutrition label.
5. Tell you child what saturated fats, *trans* fat, cholesterol and sugar are, such as these items are bullies to the body because they take away nutritional value and cause weight gain and they should be eaten in small amounts or avoided possible.
6. Ask your child to locate saturated fats, *trans* fat, cholesterol and sugar on the nutrition label and to read out the percentages of each to determine if the amount included in the cereal is small or large.
7. Discuss with your child vitamins, fibre and minerals. These items are heroes to the body, giving the child strength as well as helping the body to function properly.
8. Ask the child to locate the amount of vitamins, fibre and minerals within 1 serving. The daily values section of the food label can give you a good idea of how much of the daily vitamins and minerals the child is getting with this serving size.
9. Read the list of ingredients of the cereal together, saying out loud whether each item is health or not. For items you don't know, look them up to educate yourself and your child about them and find out the effects these items can have on the body.

Source: USFDA (2007a)


Nutrition Facts
About 38
Calories from Fat 15
% Daily Value
Total Fat 17g
26%
Saturated Fat 2.5g
13%
Trans Fat 0g
Cholesterol 0mg
Sodium 120mg
Total Carbohydrate
Dietary Fiber
Sugars