

## Review Article

# Nutrition policy in South Korea

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Since 1970s, the economic and social development in South Korea, as well as dietary pattern, has undergone various changes. Concerns for the decreased nutrition quality and physical activities among Koreans, especially young population, call for a need of a holistic approach in national food and nutrition policy. The National Health Promotion Act of 1995 included national interventions and programs to deal with nutrition-related chronic diseases and obesity prevention. A nation-wide monitoring system, which includes nutrition and health examination survey, is being built and run by the Ministry of Health and Welfare and its affiliated organizations every three years. The Korea Food and Drug Administration (KFDA) is another key agency undertaking national food and nutrition policies. The KFDA recently promulgated the national strategic plans for improving food safety and nutrition, focusing on children. Nutrition labelling policy for processed food is managed by KFDA and various education programs are developed and disseminated to enhance the awareness of nutrition labelling. The agency also makes standards and regulates foods for special dietary uses and health functional food. The Rural Development Administration (RDA) is responsible for maintaining the food composition database. Finally, the National School Lunch Program is mainly governed by the Ministry of Education and Human Resources Development. The above central government agencies along with regional health centers are making efforts to promote the healthy eating habits in addition to constructing healthy environment by making laws and programs and by research and social marketing.

**Key Words:** nutrition, government intervention, nutrition policy, South Korea

## INTRODUCTION

Since 1970s, the economic and social aspects in South Korea have undergone various changes. There was a shift in the size and type of the economy, from agriculture to industry and service areas, and the national GDP (Gross Domestic Products) has increased. These social and economic changes concur with the changes in population's food intake patterns. As GDP increases, the total caloric intake and the consumption of animal food products increases. Recently, the 2005 National Health and Nutrition Survey revealed that the proportion of animal product consumption among the population was the highest ever since 1969, when the National Nutrition Survey was first embarked.<sup>1</sup> Moreover, the level of physical activity decreased due to the urbanization and the advancement in transportation system.

Lee and other researchers argued in their paper that the nutrition transition in South Korea has the unique aspect: "the retention of healthful elements in the traditional diet".<sup>2</sup> The study pointed out that South Koreans still eat plenty of vegetables, fruits and staples. Koreans' diet is healthier than western diet; however, it is alarming that the overweight rate is increasing rapidly throughout all age group and the more people are suffering from noncommunicable diseases such as cancer and cardiovascular diseases.<sup>1,3</sup>

The prevalence of obesity (Body Mass Index  $\geq$  25) among adults older than 20 was 26.3% in 1998 and it has increased to 31.7% in 2005. This is mainly due to the skyrocketing increase in men from 25.0% to 35.1% during the same period, whereas women's obesity rate remains constant. Between 1998 and 2005, the prevalence of overweight

among children and adolescents has increased by 1.5 times.<sup>1</sup> The obesity experts are concerned that the increasing pace is faster than that of other western countries, which calls the government's great attention on childhood obesity.

Most of the current nutrition problems in South Korea are caused by overnutrition; however, the other side of society still suffers from undernutrition. A number of reports have revealed that dietary inadequacy among the lower socio-economic groups and vulnerable classes still persists.<sup>4,5,6</sup>

Concerns on decreased nutrition quality and related health problems call for a need of a holistic approach in national food and nutrition policy. In this paper, various attempts made by the South Korean government agencies in the nutrition policy area will be discussed.

## MINISTRY OF HEALTH AND WELFARE

The National Health Promotion Act of 1995 included national interventions and programs to deal with nutrition-related chronic diseases and obesity prevention. A nation-wide monitoring system, which includes nutrition and health examination survey, has been built and run by the Ministry of Health and Welfare and its affiliated

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organizations.

The National Health and Nutrition Survey (NHNS) was conducted for the first time in 1998 and replaced the National Nutrition Survey, which had been conducted every year from 1969 to 1995. Health Interview Survey and Nutrition Survey were combined into NHNS to examine the relationship between health and nutritional status. Based on the National Health Promotion Act, the National Health and Nutrition Survey had been conducted every 3 years till 2005 since 1998. The survey is a nationally representative and comprehensive one, including health interview, health behavior questionnaire, health examination, and nutrition survey. As for a nutrition survey, data are collected on dietary intake for one day using 24 hour recall method, dietary habit by questionnaire, intake frequency of major food components for prior one year and feeding practice during infancy of children younger than 4 years.

The government expect to use this nation-wide survey result in monitoring the health and nutritional status of the population and further in planning adequate policies to enhance public health and well being. There have been 3 NHNSs ever and the results already have served as the key data in evaluating government health and nutrition programs.

The NHNS in 2005 was conducted by 3 organizations, the Korea Center for Disease Control and Prevention (KCDC), the Korea Institute for Health and Social Affairs (KIHASA) and the Korea Health Industry Development Institute (KHIDI). The Ministry of Health and Welfare (MOHW) oversees the survey.

In April 2002, the MOHW made effective the Comprehensive Health Promotion Policy, with health goals including improvement of the nutritional status of South Koreans. This policy is based on the Health Plan 2010. The plan includes various important programs and interventions for nutrition, such as the revision and dissemination of dietary guidelines, the enforcement of mandatory nutrition labelling on processed and packaged foods, the provision of nutrition services to groups at risk, and nutrition information to the public. To make these programs and interventions work, the MOHW cooperates with other government agencies such as Korea Food and Drug Administration and its affiliated research institutes.

In addition, the MOHW takes responsibility for the breast feeding promotion. It runs a National Breast-feeding Committee and has launched the Baby-friendly Hospital Initiative. To make this breast-feeding promotion more effective, the Food Sanitation Act regulates infant formula advertisements.

To ensure the adequate nutritional status among vulnerable groups, the pilot study for the special supplemental nutrition program for women, infants, and children was initiated in 2005 and it is expected to be expanded nation-wide by 2010. Nutrition education program along with other health promotion programs toward the public are implemented by the regional health centers and the MOHW plays the central part in supporting resources.

#### **KOREA FOOD AND DRUG ADMINISTRATION**

The Korea Food and Drug Administration (KFDA) is another key agency undertaking national food and nutri-

tion policies in South Korea. The major responsibility of the agency lies on the insurance of food safety, however, nutrition related issues and policies are also very important portion of its tasks.

Nutrition labelling policy for processed foods is managed by KFDA and various education programs are developed and disseminated to enhance the awareness and use of nutrition labeling. As of July, 2007, most of the processed foods such as beverages/drinks, snacks, noodles, ready-to-eat meals, and infant formula have nutrition labels under the Food Labeling Standard. The main nutrients on the labels are as follows: calories, carbohydrates, sugar, protein, total fats, saturated fat, trans fat, cholesterol and sodium. Other micronutrients can be labeled as well if the manufacturers want. KFDA tries to update the rules with regard to nutrition labelling so that the consumer can make a full use of labelling information and the labelling policy can contribute to the public health enhancement.

In addition to the establishment of standard of nutrition labelling, the agency also works for establishing nutrient analysis methods and reference values of nutrients intake for the Korean population. Based on those scientific supports, the agency updates standards for the labelling periodically.

Up to date, nutrition fortification standards have not been set up in Korea. To be able to assess the possible risks of the excessive intake of micro nutrient and its alike compounds among Koreans, the agency has been analysing food intake survey data with other research institutes and is about to announce the general guidelines for nutrition fortification. The KFDA also does the ground research for developing the guidelines, for example the establishment of the upper levels of vitamins and minerals added in health functional foods, and the monitoring of the current market.

To make these nutrition policies more effective, the KFDA does its best to disseminate the accurate nutrition information to the public. On 2004, the Nutritional Evaluation Team launched its nutrition information website which contains information on nutrition labelling and various educational messages and tools for the public. In 2006, the KFDA also started the national survey, which is planned to continue on annual basis, to examine the nutrition labelling awareness and public opinions on the national nutrition policies. This national survey data will serve as key background information when it comes to the planning of the future national nutrition policy.

In addition to the nutrition labelling, the KFDA regulate foods for special dietary uses, such as infant formula, medical food, and health functional food. Based on the reference values for nutrients intake which are set up for Koreans, the agency establishes and periodically amends the standards and the specific requirements for the foods for special dietary uses.

As the main responsibility of the KFDA is food safety regulation, there has been high demand of food intake data of Koreans in the purpose of fast and accurate risk assessment. Hence, the Nutrition Evaluation Team started the research on building up the Korean Dietary Modelling System, aiming at accurate and real time risk assessment by 2010. The team designed a national food intake survey

focusing on infants, children and adolescents in 2006 and a pilot study is planned for 2007 and 2008.

To be able to get this Dietary Modelling System working, the complete database on contaminants and nutrients which has possible toxicity at certain level needs to be obtained along with the intake data. The Nutrition Evaluation Team tries to set up the food composition database by standardizing the analysis methodologies from the certified national labs. The agency will invest more resources into the research on micro-nutrient analysis and other database components for Dietary Modelling System such as nutrient retention factors and standardized recipe database. Food intake survey along with rich nutrient and contaminants database will enable facilitating not only the risk assessment but also the nutrition assessment.

The KFDA recently promulgated the national strategic plans for improving food safety and nutrition, focusing on children. This is the first national attempt of its kind, in which nation-wide nutrition issues are mainly dealt with. Five years of action plans (2006-2010) for improving children's well-being cover a variety of policies and programs: development of easy-to-read nutrition labelling format, fast food advertising regulation on television and nutrition labelling on foods served at restaurants.

The plan consists of two parts: food safety and better nutrition for infants, children and adolescents. For convenience, the policy report calls those age groups (from 0 to 19 years old) children. The prevailing public concerns over serial food-borne illness outbreaks in school lunch program on top of the epidemic obesity problem initiated this national approach in 2006. This approach shifts the national policy's paradigm from food safety *per se* to the overall management of dietary environment, where the nutrition takes the crucial part.

By 2010, the agency will work on 5 main areas to make children healthier: food industry market, food processing procedure, school lunch program, public education, and government system dealing with food and nutrition. Within those 5 areas, the government set 10 action plans: 1) designating Green Food Zone around schools where junk food may not be sold, 2) regulating junk food advertisement, 3) lowering the level of sugars, sodium, and trans fatty acids in children's favourite foods, 4) strengthening the regulation on food additive usage in children's favourite foods, 5) establishing standards for nutrition fortification and infant formula, 6) organizing the supporting centers for School Lunch Program, 7) increasing public education opportunity on food safety and nutrition, 8) promoting healthy food manufacturing, 9) making the law governing food safety and nutrition for children, 10) standardizing the system for evaluating food safety level and nutritional status.

There are other government agencies which work on nutrition. For ensuring the quality of food and nutrition in School Lunch Program, the KFDA collaborates with the Ministry of Education and Human Resources Development and the MOHW. For the food composition database development and maintenance, the Rural Resources Development Institute under the Ministry of Agriculture and Forestry is the main institute to work with.

The above central government agencies along with regional governments and local governments along with

public health centers are making efforts to promote healthy eating habits in addition to constructing a healthy environment by making laws and programs and by conducting research and social marketing.

#### AUTHOR DISCLOSURES

Hye-Kyung Park, no conflicts of interest.

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