

Nutrition Policies in the Republic of Korea : Expert Opinions and Recommendations

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ABSTRACT

Considering the increasing global burden of disease attributable to nutrition, the demand for national nutrition policies is growing stronger and stronger. The Republic of Korea is beginning to respond to this growing demand and there have been numerous recent achievements in the area of nutrition. The purpose of this paper is two fold. In the first part of the paper, an overview is provided about existing nutrition action in Korea. In the second part, information is elicited from Korean experts in the field of public health and nutrition. A structured questionnaire was sent directly to renowned Korean experts and was disseminated through the list serve of the Korean Nutrition Society. It asked about existing nutrition related policies, obstacles to nutrition policies in Korea, which professions are 'responsible' for the prevention of nutrition-related diseases and for example about existing nutrition programs within settings. Twenty-two questionnaires were returned. Based on the results, the following actions were considered crucial to develop and implement a nutrition policy in Korea: having a clear advocacy strategy for nutrition to raise awareness about the importance of nutrition, increase transparency of nutrition-related action and make the information easily accessible for all stakeholders, ensure the enforcement of regulations regarding misleading and incorrect food advertisements, strengthening the (public health) nutrition workforce, strengthen the settings-based approach and build and maintain partnerships, and last not least: educate and empower the citizens and ensure that healthy choices are 'easy choices'! Acknowledging the past and ongoing efforts in Korea, it is pivotal that the nutrition workforce grows stronger and the voice of nutritionists even louder, in order to promote and ensure the health and quality of life of the country's citizens. (*J Community Nutrition* 7(4) : 175~183, 2005)

KEY WORDS : nutrition policy · expert opinion · Korea.

Introduction

Nutrition policy is by no means a term new to Korea. Already in 1979 a Nutrition Policy Symposium was held in Korea, under the auspices of the United States Agency for International Development, US AID Mission to Korea. At the "National Nutrition Policy Symposium", the then Vice-Minister of Health and Social Affairs, Park Seung-Ham, said the following : "Needless to say, nutrition is the most important prerequisite to the maintenance of our health(···).

We are apt to neglect the importance of clean air in our daily lives, we(also) tend to slight the value and quality of our diets." (National Nutrition Policy Symposium 1979).

Now, more than 25 years later, the importance of nutrition in our daily lives and the fact that our food choices affect our health remains-and has become even more-undisputable.

1. Public health relevance of nutrition-related non-communicable diseases

Many of the non-communicable diseases(NCD) now the major cause of death and disability worldwide, can be linked to what we eat. Non communicable conditions, including cardio-vascular disease, diabetes, obesity, cancer and respiratory diseases now account for 59% of the 56.5 million global deaths annually, and for 45.9% of the global burden of disease(WHO 2003). It must be noted that relatively few risk factors, including high cholesterol, hypertension, obesity

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smoking and alcohol, cause the majority of the NCD burden. All of these risk factors belong to the top ten risks to human health (WHO 2002). Considering that these risk factors are lifestyle related they are, to a large extent, preventable.

As stated in the Fact Sheets of the Global Strategy on Diet, Physical Activity and Health, “up to 80% of cases of coronary heart disease, 90% of type 2 diabetes and one third of cancers can be avoided by changing to a healthier diet, increasing physical activity and stopping smoking.” (WHO 2002 ; Waxman 2004).

The public health importance of under-nutrition must not be neglected, especially considering that under-nutrition remains a problem in Korea. Examples of health impeding consequences related to under-nutrition include developmental delay in children and low-birth weight or pre-term delivery.

Considering the influence our daily nutrition behavior has on our health and that the evidence for nutrition policies is strong, the time to take action is pertinent. Not to act would be ‘irresponsible’ and the government plays a key role in taking action (Engelhardt 2005).

2. Public health nutrition action in Korea

In recent years there have been numerous achievements in Korea in the area of nutrition. The fact that Korea signed the World Declaration on Nutrition in 1992 can be seen as a milestone in national public health nutrition action. Furthermore, the Korean Government endorsed the Codex Alimentarius, as well as WHO’s Global Strategy on Diet, Physical Activity and Health. The National Health Objectives 2010, the National Health Promotion Plan, as well as the ‘lifetime health maintenance system’, a comprehensive health promotion program with a three tier preventive system, which was initiated by the Ministry of Health and Welfare, include nutrition components and indicate positive nutrition-related policy directions.

A milestone, regarding structural improvements, includes the establishment of the Korean Food and Drug Administration, KFDA. In 1996, the Korean Food and Drug Safety Headquarters were set up in addition to six regional offices and 2 years later the Headquarters received the status of an administration, which marked the beginning of the KFDA. The KFDA has the primary responsibility to develop and implemented food and agriculture related acts and regulations. These include, for example the Food Sanitation Act,

Korean Food Code, Korean Food Additive Code, Labeling Standards for Livestock Products, Sustainable Agriculture Promotion Act, Agricultural Products Quality Control Act, Guidelines for Safety Assessment of Food and Food Additives developed through recombinant DNA techniques, or the Guidelines for Labeling Standards for Processed Food Products containing GM ingredients (Chung SA 2002).

Other regulations and acts which have nutrition components, even though they are quite small, include the Regional Public Health Act, Public Health Control Act and the Oral Health Act. The Health Promotion Act of 1995, provides a special example. This Act sets the stage for strengthening public health nutrition in Korea. Article 15 of this Act focuses on : ‘nutrition improvement’ and pronounces that the state and local governments shall survey the nutritional status of citizens, develop a plan for citizens’ nutrition improvement and provide guidance about nutrition. Furthermore, state and local governments shall perform : nutrition education, conduct research regarding nutrition improvement and implement other projects to improve the nutrition situation (MOHW 1995). The Korean Health Promotion Fund, the legal basis of which is the Health Promotion Act, provides valuable contributions to the area of nutrition by funding, for example research on improvements of the national nutrition survey, research related to the development of nutrient databases and to developments of a national healthy eating index by age groups. Furthermore, funds are allocated to the national nutrition improvement project, including nutrition interventions in local public health centers, or in child care centers and public awareness campaigns to promote the nations nutrition status. More information about nutrition-related projects funded by the Korean Health Promotion Fund can be obtained from their website, where complete project proposals can be accessed in Korean (<http://hppac.kihasa.re.kr>, accessed October 2004).

Of great importance is the very regular Nutrition Survey, which has been conducted annually since 1969. Results of this survey provide the foundation for targeted nutrition-related programs. In 1998 the Nutrition Survey was combined with the National Health Survey- a step that was taken under the Health Promotion Act- and is now conducted every three years, spearheaded by the Nutrition Team of the Korean Health Industry Development Institute, KHIDI.

The Korean Recommended Dietary Allowances, (first developed in 1962 and since then continuously revised)

(KNS 2000), and current efforts to establish Korean Dietary Reference Intakes (DRI) are valuable achievements. The National Dietary Guidelines are also of tremendous value, as they lead the development of sound nutrition education messages for the Korean population (KHIDI 2003). In the context of "nutrition education messages", the Korean Health Promotion Development Center (<http://healthguide.kihasa.re.kr>, accessed October 2004) should be mentioned as an important contributor to the development of nutrition education materials. Further actions include the regular nutrition services offered in public health centers (Kye SH 2000 ; Moon HK 1996). A substantial amount of research has also been done that provides valuable contributions to the developments of new policies and to the review of old PHN policies. To name just a few, there is the 'Nutrition Monitoring and Surveillance System' project (NMSS 2004), the 'Nutrition Management of the Elderly' project (NMPARD 2004), the "Health and Nutrition Management in Child Care Centers" project (Kim HR et al. 2003), and the "Study of efficient delivery of health-center based nutrition services through linkages with social welfare centers" (Kim HR 2001). A major step forward regarding the development of a national nutrition policy, which can also be considered the first major advocacy activity, includes two presentations held by members of the Nutrition Policy Working Group organized by the Korean Nutrition Society to the National Assembly. The purpose of the first presentation was to provide the rationale for a nutrition policy and to explain the current nutrition situation in Korea. The purpose of the second presentation was to give suggestions for the way forward.

When reviewing the nutrition policies and related action that has taken place in Korea, it seems as if a lot is being done. But how transparent are these developments, who is (or should be) responsible for developing nutrition policies and implementing nutrition programs, and is enough being done? These questions introduce the second purpose of the paper, namely to find answers to some of these open questions, by asking the "experts".

Subjects and Methods

In order to elicit what Korean nutrition and public health experts think about current nutrition policies and related action, a questionnaire was specifically developed for the purpose of this research (The questionnaire can be obtained

from the corresponding author.). The questionnaire was sent directly by email to 28 public health and/or nutrition related Korean professionals and was also disseminated through the list serve of the Korean Nutrition Society. The nutrition experts were identified by word of mouth and through recommendations of renowned nutrition researchers in Korea. The experts were asked to reply either via email or via fax, to keep the process as convenient as possible.

The Public Health Nutrition Questionnaire included eight questions. The first question was related to food and nutrition regulations, legislations, codes or policies in Korea. Experts were asked about the existence of specific nutrition-related regulations, for examples regarding "food advertisements", "food labeling", "employment of dietitians in public health centers" or regarding "food safety measures". Answer categories included: "Yes, and they are being implemented", "Yes, but they are only being partially implemented", "No, but they are currently being develop", "No", "I don't know". There was also the option to check the answer: "It's difficult to say" and to provide a comment.

The second question was about possible "obstacles" to nutrition policies. Four statements were given and the experts were asked to indicate whether they considered this statement to be a "major obstacle", a "minor obstacle" or "not an obstacle".

The third question asked the experts to rate how much effort the national government is currently putting into the primary prevention of adverse conditions related to specific areas, e.g. tobacco, alcohol, mental health, violence, traffic accidents or nutrition. The rating was on a scale from one to ten. One meaning that "not very much is being done" and 10 meaning that "very much is being done".

In the fourth question, experts were asked to rate the importance of certain professions in the primary prevention of nutrition-related diseases such as diabetes, obesity, hypertension, etc. Example professions included medical doctors, nurses, dietitians or teachers.

Question five was an open-ended question and asked respondents to list any current nutrition projects or programs, which they were aware of, including projects in public health centers, other community centers, in schools or worksites.

The sixth question asked experts to indicate to what extent nutrition-related health promotion programs were being implemented in specific settings. Answers were given on a scale from one to ten, one meaning "not at all" and ten meaning

“to a great extent”.

Question seven asked how important the expert perceived “public health nutrition” to be for Korea and question eight asked how important it was to develop the profession “public health nutrition” in Korea. Answer options ranged from one (“not very important”) to ten (“very important”).

Results and Discussion

A total of 22 questionnaires were returned, 16 by email and six by fax. From the 28 questionnaires that were sent directly to renowned nutrition expert's a total of sixteen were returned. Six replies were received through the list-serve of the Korean Nutrition Society. Respondents' affiliations included for example : Korean Food and Drug Administration, the former National Institute of Health (now, Korean Center for Disease Control and Prevention), Korean Health Industry Development Institute, Korean Institute for Health and Social Affairs, Inje University, Dankook University, Ansan University, Kyungnam University, Seoul National University, Yonsei University, Ewha Woman's University or Donguk University.

The first question asked about the existence of national regulations, legislations, codes or policies related to food and nutrition issues (only the term “nutrition policy” is used hereafter). After personal discussions with some of the respondents, it turned out that this question was somewhat difficult to answer. However, considering that the questionnaires were sent out to public health and/or nutrition professionals,

the purpose of this question was to elicit whether there is a consensus about existing nutrition-related policies among these professionals. The results of this question show that, in general, there is a lack of consensus, and thus a lack of transparency regarding nutrition-related policies. This underlines the need to conduct additional and more in depth research related to existing nutrition-related laws, policies or regulations and to improve the dissemination of such information. Furthermore, this result calls for more transparency of nutrition related policies, and nutrition related action, to all stakeholders (Table 1).

For example eight respondents mentioned that a regulation for food advertisements exist and that they are being fully implemented and twelve mentioned that they are being partially implemented. Actually, the regulation regarding food advertisements is laid down in the Food Sanitation Law and bans misleading and incorrect ads. The following three examples highlight that it is not sufficient to have a law, but that its implementation must be enforced. On March 16, 2004, KBS reported that celebrities who have lost weight appear in advertisements for diet products, in a very misleading manner. The Korea Food and Drug Administration (KFDA) disclosed a firm that sold about 800 million won worth of its diet products by broadcasting false ads on home shopping channels, as was also mentioned in the KBS report. A study which was conducted on health and nutrition messages in baby food advertisements of women's magazines revealed that “messages violating regulations (e.g. exaggerated or inaccurate or non-scientific messages) were frequently

Table 1. Expert opinion about the existence of specific nutrition-related regulations, laws, codes or policies (Question 1)

Answer possibilities →	Yes, fully implemented	Yes, partially implemented	No, but being developed	No	I don't know
Are there any national regulations, legislations, codes or policies for, ...					
1) Food advertisements	8	12	2	0	0
2) Food labeling	5	14	2	1	0
3) Health claims	5	10	5	2	0
4) Regarding food safety	10	11	1	0	0
5) Nutritional value of meals served in schools	6	5	2	5	4
6) Nutritional value of meals served in hospitals	2	7	7	5	1
7) Nutritional value of meals served in workplace cafeterias	2	5	1	12	2
8) Employment of dietitians (or other professions trained in the area of nutrition) in public health centers	2	14	1	4	1
9) Employment of dietitians (or other professions trained in the area of nutrition) in educational settings (e.g. schools or universities)	9	9	2	1	1
10) Employment of dietitians (or other professions trained in the area of nutrition) in workplace cafeterias	5	14	1	1	1

found in the advertisements of three kinds of baby foods.” (Kim KN 2003). Another example, which emphasizes the need for tighter supervision of food advertisements and nutrition information, appeared in the JoongAng Daily newspaper (April 13, 2004). The title of the article was catchy : “McDonald’s beefs up marketing campaign”. This article mentioned that

McDonalds announced that their hamburgers contain similar caloric levels to popular Korean dishes, in an attempt to counter the conceptions that burgers are more fattening than Korean foods. Tighter regulations are clearly needed to protect citizens from such misleading advertisements, and more social marketing campaigns should be put in place to educate, empower and enable citizens to make informed healthy choices.

The second question elicited the perceived obstacles for developing and implementing a national nutrition policy for Korea (Fig. 1). Another question elicited the perceived obstacles for developing and implementing a national nutrition policy for Korea. Interestingly, the ‘strong food industry’ or the ‘possible conflict between agricultural policies and nutrition policies’ were not seen as major obstacles. Whereas these issues are, for example, concerns in Europe (Kjaernes U 2003 ; Lobstein T 2002 ; WHO 1998). Among Korean professionals, lack of a sense of priority among politicians regarding 1) the importance of nutrition and 2) the importance of chronic, non-communicable diseases, were perceived to be major obstacles, by 54% and 64% of the respondents, respectively. Other obstacles that were mentioned included : lack of a national management structure, complexity of the needed management system for nutrition policies, poor management skills of dietitians and other nutrition specialists, knowledge of policy makers, financial barriers regarding customs and trade, the importance of nutrition is not recognized (this point would go into the category : “nutrition not seen as a risk factor”).

The results clearly emphasize the importance of creating a stronger awareness among policy and decision-makers about the public health importance of nutrition and its association with non-communicable diseases and to develop a strong advocacy strategy for public health nutrition.

One question asked how the respondents perceived the extent of primary prevention efforts supported by the national level (= central government) related to selected public health relevant topics. The respondents were asked to rate the extent

of primary prevention efforts on a 10 point likert scale (1 = not very much is being done by the government, to 10 = very much is being done by the government). The results clearly identified a priority area, namely: tobacco (mean rating : 8.1). This was followed by perceived prevention efforts related to traffic accidents (5.9). The respondents perceived that the government provided the least primary prevention efforts for the topics : nutrition (3.6) and mental health (3.3). Thus despite the ongoing national efforts regarding nutrition policies, the perception of Korean experts is that the central government does not provide sufficient support for primary prevention efforts related to nutrition. Nutrition does not yet seem to be a priority on the political agenda (Fig. 2).

The fourth question asked the participants to judge the importance of specific professions in the primary prevention of nutrition-related diseases (such as obesity, diabetes, hypertension, cardiovascular disease, etc.). On a scale from one (“not important at all”) to ten (“very important”), the highest mean score went to medical doctors working in Public Health Centers (9.14), followed by Dietitians working in Public Health Centers. The following two most important professions in the primary prevention of nutrition-related diseases were both medical doctors. MDs in private practice received a mean score of 8.59 and MDs in hospitals received a mean score of 8.50. The fifth most important profession was considered to be dietitians in hospitals (8.19) followed by kindergarten teachers (7.76).

These results suggest the need to strengthen the impact teachers have on the primary prevention of nutrition-related diseases. The primary role of doctors is to diagnose and cure diseases. They could provide nutrition information once a nutrition-related disease or a risk thereof has been identified,

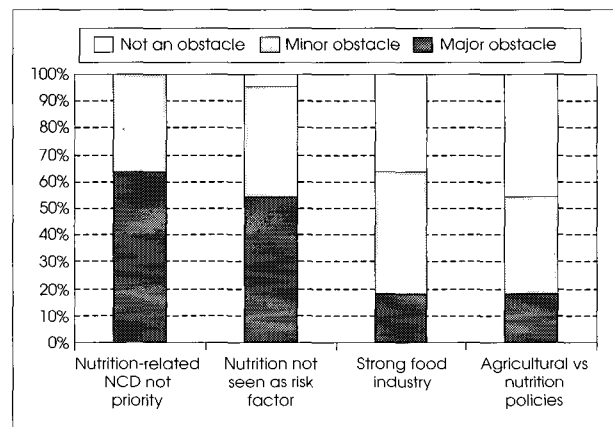


Fig. 1. Obstacles for implementing nutrition policies (Question 2).

but they surely should not play the “most important role” in the primary prevention of nutrition-related diseases.

Question six asked the respondents to indicate the extent to which nutrition-related projects are being implemented in a specific settings. Responses were made on a 10 point likert scale, one meaning that the settings are “not at all” implementing nutrition-related projects and ten meaning that nutrition projects are being implemented to a “great extent”. As shown in Fig. 3, respondents indicated that most nutrition-related projects are being implemented in public health centers, followed by sports facilities and elementary schools.

In general the result is not very positive, as only the public health centers received a score barely over five. According to the respondents nutrition projects are not being implemented to a great extent in other settings. Interestingly, in settings where food is consumed and purchased (e.g. restaurants or supermarkets) the extent of nutrition projects is almost absent.

The last two questions of the Public Health Nutrition Questionnaire which I sent to professionals asked about the perceived importance of public health nutrition for Korea and how important it would be to strengthen the public health

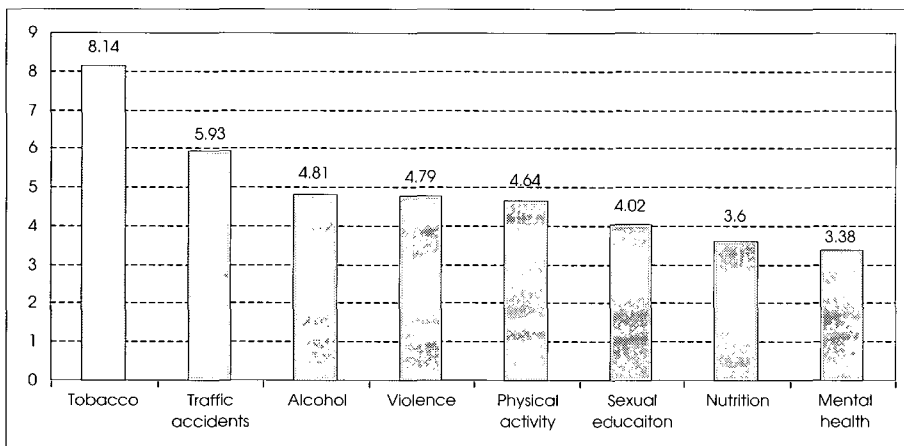


Fig. 2. Primary prevention efforts by the national government (10 = very much is being done/1 = not much is being done) (Question 3).

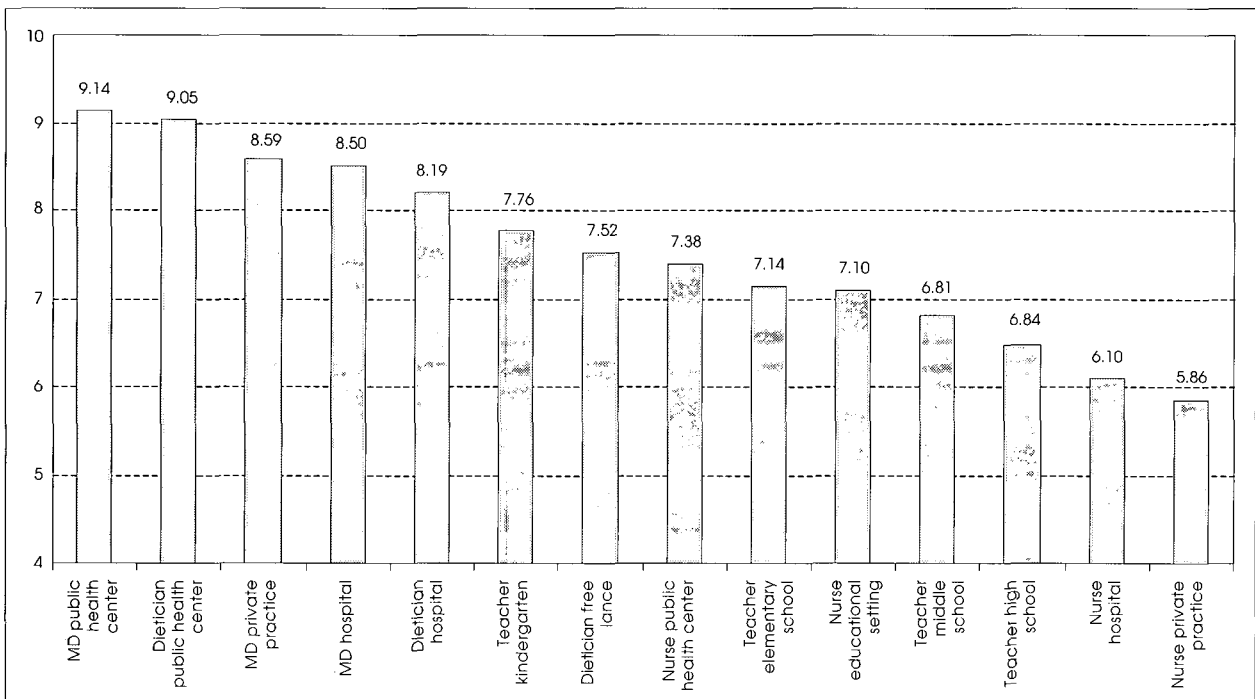


Fig. 3. The importance of professions in the primary prevention of nutrition-related diseases (1 = not important at all/10 = very important) (Question 4).

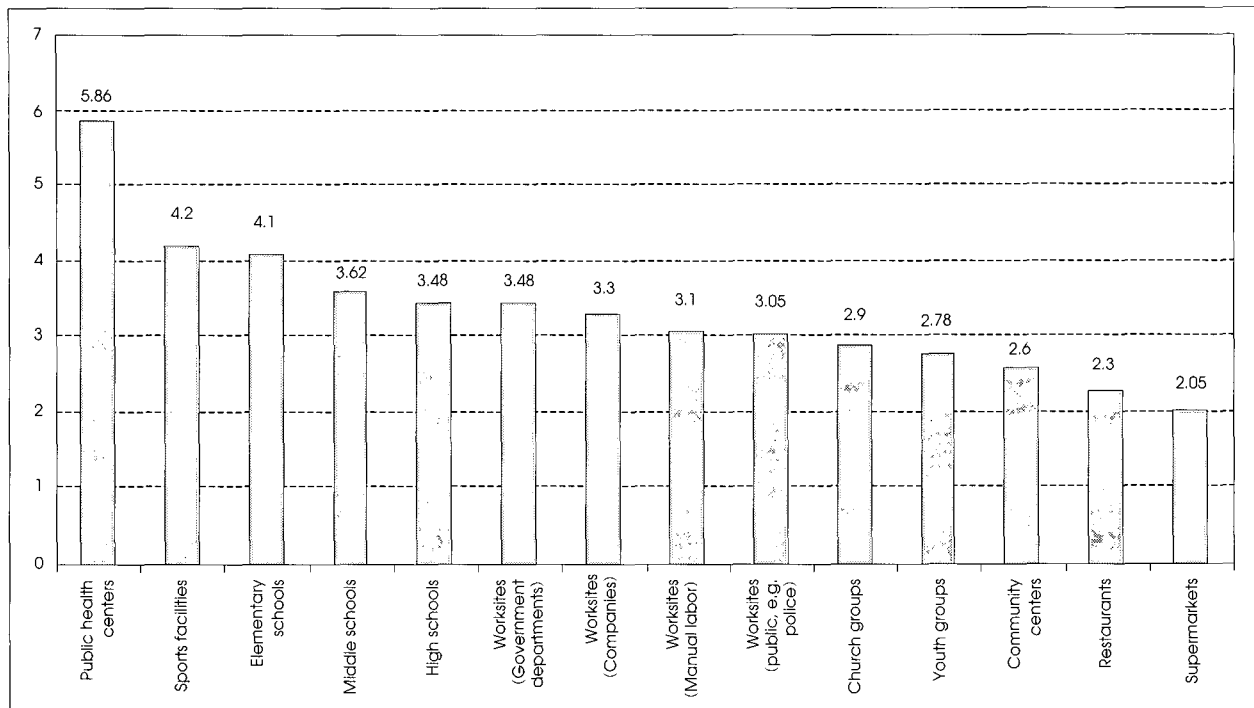


Fig. 4. Settings in which nutrition-related projects are being implemented (1 = not at all/10 = to a great extent) (Question 6).

nutrition workforce. Public health nutrition was defined as follows prior to the question: "the art and science of promoting population health status via sustainable improvements in the food and nutrition system. Based upon public health principles, it is a set of comprehensive and collaborative activities, ecological in perspective and inter-sectoral in scope, including environmental, educational, economic, technical and legislative measures." (Hughes R 2003). The mean ratings (on a 10 point likert scale: 1 = not very important to 10 = very important) were about 9.5 for both questions. Of course, the respondents of this question might be biased, since they are professionals in the areas of public health and/or nutrition. Nevertheless, the respondents rated the importance of public health nutrition for Korea as being very high (Fig. 4). Now it is important that their voices and the voices of everyone else believing in public health nutrition grow louder to enable the development and implementation of effective public health nutrition policies in Korea.

General comments about the questionnaire and limitations

The results of the questionnaire must be interpreted in view of some limitations. Firstly the sample size was very small considering the limited resources available for this project. However, it must be emphasized that the question-

naire was sent out to experts who have a good knowledge of the field of study, and expert opinions are valuable sources of knowledge. Another limitation is that the questionnaire was sent out in English, which may have caused some difficulties. Also this may explain the low response after disseminating the questionnaire through the list serve of the Korean Nutrition Society. It is recommended to conduct a similar survey again with more participants and with a Korean questionnaire.

Recommendations and concluding remarks

The first part of this paper provided a brief overview of nutrition-related action in Korea. However, after a summary of the results of the expert survey, it becomes clear that much more is needed before nutrition receives adequate and appropriate attention in Korea.

The following recommendations are made based on the results of the survey.

Firstly, there seems to be a lack of transparency regarding existing nutrition-related national legislations, regulations and policies. This calls for the need to conduct an in depth, systematic situation analysis using qualitative and quantitative methods, and to properly communicate the results. Only if people know what is going on can they become part of

the process. It is important to win more advocates and the first step for this is to gain attention from as many potential advocates as possible. As always 'competition' should be healthy competition and help others progress rather than stall the progress.

Secondly, the results of the questionnaire indicate that the obstacles to a national nutrition policy seem to be that policy makers do not see nutrition-related chronic diseases as a priority nor do they see the importance of nutrition as a risk factor for disease. Furthermore, results showed that not enough is being done by the central government related to primary prevention of nutrition-related disease. It is crucial to raise the awareness about the importance of nutrition, and once again it must be emphasized that a clear and strong advocacy strategy is needed.

Thirdly, more efforts must be made in strengthening the public health nutrition workforce, considering that a lot of qualified people are needed to properly plan and effectively implement nutrition policies. Medical doctors should not be the 'most important people' in the primary prevention of nutrition-related diseases. As a starting point, the importance of hiring at least one nutritionist in the Ministry of Health and Welfare is undisputable. Furthermore, the public health nutrition workforce in local public health centers must be strengthened. In relation to strengthening the public health nutrition workforce, it should be noted that the field of health promotion in general is just emerging in Korea, requiring appropriate training for new and old health workers, as they did not have the chance to acquire the knowledge and skills needed to develop, implement or evaluate health promotion programs, irrespective of the health-topic. The necessary competencies of 'qualified' PHN workforce have recently been researched (Hughes R 2004). Competencies that PHN workforce should have include, for example, analytical competencies (nutrition monitoring, needs assessment), socio-cultural and political competencies (knowledge and understanding of the psychological, social and cultural factors which influence food and dietary choices), public health service competencies (intervention management : design, plan, implement, monitor, evaluate nutrition strategies and programs ; principles and practice of health education, health promotion theory, behavior change, etc.), communication, and management and leadership competencies. The National Health Promotion Act provides the legal basis for an accreditation system for 'health educators', to be implemented

by the year 2009. PHN professionals should start efforts to establish an accreditation system for public health nutritionists. Also, the capacity of 'non-medical' personnel, including especially teachers or certain employees within worksites, in order to enable the implementation of nutrition projects and the promotion of healthy nutrition in settings such as schools and worksites.

Fourthly, there is a strong need to strengthen the settings-based approach, and to increase the focus on improving the physical environments. The importance of nutrition education in schools, worksites, youth centers or restaurants, and not only in public health centers, should not be underestimated. In this respect, it is important to build on partnerships and to collaborate with other sectors, considering that the health sector alone cannot achieve a reduction of life-style and nutrition-related risk factors.

Fifthly, nutrition-related professionals must benefit from the current momentum. To name just one example, the focus of nutrition in the MOHW's three-tier preventive "lifetime health maintenance system" must be increased. It is well known that nutrition is a component of primary, secondary and tertiary prevention. In primary prevention, nutrition initiatives reduce the risk of developing nutrition-related diseases; in secondary prevention nutrition initiatives halt and/or reverse the progression of disease and in tertiary prevention nutrition initiatives are aimed at rehabilitation of diagnosed persons. Thus, nutrition must be considered a key element of the "lifetime health maintenance system".

Policy-makers have yet to realize the importance of nutrition and its effect on health. If nutrition as well as health are on the agenda of policy-makers, and if citizens are educated and empowered, then 'healthy choices' may become 'easy choices'.

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