【W3-1】

Public Health Nutrition Policies

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Introduction

It is a great honor and absolute pleasure for me to present to you here at the Annual Conference of the Korean Nutrition Society.

I would like to start my presentation with a quote from Park Seung Ham, who was Korea's Vice Minister of Health and Social Affairs, in 1979: "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." These were his welcoming comments at the "National Nutrition Policy Symposium", held in Korea in 1979 under the auspices of the United States Agency for International Development, US AID Mission to Korea.[1] Now, *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.

In the first of four parts of my presentation, I will reiterate definitions and goals of public health nutrition (PHN) policies. In the second part I will state the rationale for countries to adopt a PHN policy, followed by an overview of related action in Europe. The concluding part raises the issue of PHN action specific to Korea and suggests steps needed to formulate PHN policies.

Definitions and Goals of PHN policies

Public health is defined as the collective action taken by society to protect and promote the health of entire populations. Public health nutrition focuses on the promotion of good health through nutrition and the primary prevention of diet related illnesses in the population.[2] (This is just one of many definitions, which have been suggested for PHN.[3] A policy is a plan of action adopted and pursued by a government.[4] Thus, PHN policies are *governments' plans of action that focus on the promotion of good health through nutrition and the primary prevention of diet related illnesses in the population.* The main goal of PHN policies should obviously be to promote health. Furthermore, PHN policies should ensure food security and accessibility, food safety, cultural acceptability, affordability, environmental sustainability and transparency, they should build on evidence and be inter sectoral.

Rationale for countries to adopt a PHN policy

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.[5] It must be noted that relatively few risk factors, including high cholesterol, hypertension, obesity, smoking and alcohol, cause the majority of the NCD burden.[6] 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." Recent data from the European Union show that 130 million disability adjusted life years (DALY[i]) are lost annually to a wide range of diseases, and that nutritional factors have an important role to play in about 55 million of these diseases, and have a strong modulating function in an additional 50 million.[7,8] Considering the influence our daily nutrition behavior has on our health and that the evidence for PHN policies is strong, the time to take action is pertinent. Not to act would be *irresponsible.*

Why is the burden of nutrition-related diseases increasing?

Numerous publications describe the factors associated with the epidemiological transition, characterized by changing disease patterns, including an increase in (nutrition related) NCD.[9,10] These factors include economic development, technological development, social and cultural development, expansions of the "food industry" and the resulting globalization of food. All these developments have lead to the creation of obesogenic environments, i.e. environments that promote obesity.[11] These developments have contributed to the changing disease patterns by influencing our *food choices* and *consumption patterns*. Therefore, *our* behavior has changed. In order to reduce the lifestyle related risk factors, which cause the majority of the global NCD burden, we have to have a profound understanding of elements influencing our behavior at the various levels of society. This is where the story becomes complex and where an inter sectoral approach must be applied in which professionals from different sectors work together to be successful.

The social ecological model[12,13] presented here (slide), illustrates intrapersonal, social environmental, physical environmental, cultural, and societal, political and structural influences on (nutrition) behavior. These elements could form part of a comprehensive

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i DALY adds together: a) the years of life lost, through all deaths in 2000 (in this example), and b). the years of healthy life lost through living with disease, impairment and disability for all cases beginning in 2000

PHN policy. Examples of specific elements in each 'sphere' are as follows:

- Intrapersonal: individual hierarchy of needs, beliefs, values, self efficacy, knowledge, genetics, age, gender, etc.
- Social environmental: family, peers, partnerships, colleagues, support systems
- Physical environmental: schools, meal service, vending machines, work sites, convenience stores, etc.
- Cultural influence: traditions, norms
- Societal, political, structural: local, state and national policies, regulations, laws.

It is important to note that in the social ecological model the individual interacts with each levels, and that the levels also interact with each other.

It becomes clear that an 'effective' PHN policy requires more than a simple "consumer nutrition education component"[14]. More important are the health promoting decisions by policy makers, farming organizations, food corporations, food retailers, advertisers, educators and - of course - ourselves. However, considering the incongruent priorities of some of these groups, it is often difficult to come to a consensus. *For example*: Agricultural policies (in the European Union) support the production and promotion of dairy fats, they subsidize butter distribution, and support butter and oil advertising. In contrast to this, the dietary guidelines recommend that we reduce our intake of dairy fats.[8]

Government's role

I would like to illustrate the government's role in PHN, i.e. in "promoting good health through nutrition and the primary prevention of diet related illnesses in the population", by showing the food supply chain[15], which is the core of a food and nutrition system, and linking its subsystems to possible government action in PHN (slide). The food supply chain starts off with the producer subsystem (agricultural inputs and production, processing, distribution, food retailing and catering), then passes to the consumer subsystem (acquisition, preparation, consumption) and ends with the nutrition subsystem (digestion, transport of nutrients and subsequent health outcomes). Within the 'producer subsystem' PHN policies could include, for example:

- Fiscal food policies[16]: price policy instruments, such as subsidies and taxes, which can influence food buying patterns. (Currently fiscal food policies are mainly driven by agricultural, economic and political agendas - therefore, "health" needs to become a stronger driving force).
- Food additives and fortification policies
- Food labeling and health claims policies
- Food advertisement policies
- Ensuring that the quality of the foods distributed through catering services and/ or

served in settings (schools, day care centers, worksites, community centers) meat the nationally recommended daily allowance
- Mandatory, continuing education and training of meal service and/or catering service staff

Within the consumer subsystem, nutrition education - a very complex matter, which entails many possibilities - must be included into nutrition policies. Nutrition education efforts could include point of purchase education in stores, mass media campaigns (to influence the norms within societies), nutrition education within settings (schools, worksites, etc.), and nutrition counseling as an important method for primary, secondary and tertiary prevention of nutrition related diseases. Within the nutrition subsystem, which includes 'health outcomes', policies related mainly to secondary and tertiary prevention and to health care come into play.

These are just a few examples of a number of PHN actions that can be pursued by governments.

What is being done in Europe?

The foundation for public health action in the European Union (EU) is laid down in two Treaties. With the adoption of the Mastricht Treaty in 1993, the Community acquired a mandate to develop a coherent public health strategy. Article 129 of the Treaty states that "Health protection requirements shall form a constituent part of the Community's other policies". The Amsterdam Treaty (1998) widened and confirmed the public health mandate of the Community. This Treaty mentions the need for activities on nutrition and obesity and stresses that actions under the new public health strategy must be properly linked with health related initiatives in other policy areas. A key document related to food and nutrition, is the Commission's White Paper on Food Safety [COM(1999)719 Final]. White Papers, which have been favorably received by the European Council, are 'action programs' for the EU in the area concerned. Thus, the White Paper on Food Safety, is the 'action paper' related to food and nutrition. The paper makes the proposals that will "*transform EU food policy into a proactive, dynamic, coherent and comprehensive instrument to ensure a high level of human health and consumer protection.*" It is very comprehensive and contains 84 suggested actions in 19 main areas (e.g. priority measures (I) [e.g. establishing the European Food Safety Authority), Feedingstuffs (II), Animal Health (III), BSE (VI), Novel Foods/Genetically modified organisms (XI), Irradiation of Foods (XII) and Labeling of Foods(XIV)]. Concrete examples of actions include, for example a proposal for a "General Food Law Directive[ii], Action N° 3", a "communication on an action plan on nutrition policy, Action N° 18", or a proposal for "amending Directive

ii Directive bind the member states of the European Union as to the results to be achieved The Directives have to be transposed into the national legal framework and thus leave a margin for manoeuvre as to the form and means of implementation

79/12/EEC on the labeling, presentation and advertisement of foodstuffs, Action N° 65".

Another fundamental document, which should be mentioned is the Council Resolution on Health and Nutrition (2001/C20/01). Council resolutions represent the consensus of all member states. With this resolution, the Council of the European Union, presents its consensus in strengthening nutrition related issues. The Council, for example, "*emphasizes* that poor nutrition leads to higher social and health costs for Member States" and "*notes* that action to improve the availability of and access to healthy food as well information about healthy diet are important components of nutrition policy."

Considering the scope of this presentation, it is not possible to expand on all of the action areas related to PHN in Europe. I have chosen three areas, which I would like to explain in more detail.

1). Labeling: the objective of the Directive on "Labeling, presentation and advertisement of foodstuffs" (N° 2000/13/EC, amended by Directives: N° 2001/101/EC and N° 2003/89/EC) is to inform and protect consumers and prevent different national legislations impeding the free movement of foodstuffs. It aims to provide consumers, especially those suffering from food allergies and intolerances, with fuller information on the composition of products through more exhaustive labeling. Furthermore, the aim is to ensure that the consumer gets all the essential information as regards to the composition of the product, the manufacturer, methods of storage and preparation, etc. All ingredients in foodstuff have to be included on the label. Producers and manufacturers are free to provide whatever additional information they wish, provided that it is accurate and does not mislead the consumer.

2). Nutrition Labeling: the objective of the Directive on Nutrition Labeling (N° 90/496/EEC, as amended by Directive: N° 2003/102/EC), is to ensure free movement of foodstuffs throughout the Community while guaranteeing consumer protection. It aims to ensure that the information provided on the labeling of foodstuffs is correct and does not mislead or confuse the consumer. Nutrition labeling is not compulsory unless a nutrition claim (e.g. high in Vitamin C, low in fat) is made on the label or in advertising material. In this case, the label must include information, e.g. on the amount of protein, carbohydrate, sugar, fat, saturated fatty acids, dietary fiber and sodium. The declared energy value and amount of nutrients must be given in figures using specific units of measurement (e.g. 100 g or 100ml). Information on vitamins and minerals must be expressed as a percentage of the recommended daily allowance (RDA).

3). Nutrition and Health Claims. There is still a lot of discussion regarding "Nutrition and Health Claims" in the European Union. Currently the European

Commission has issued a proposal for a "Regulation on nutrition and health claims made on foods" (No COM/2003/0424). The objectives of this regulation include (for example): to harmonize the different national laws relating to nutrition and health claims, to guarantee a high level of consumer health protection by providing voluntary information in addition to the mandatory information provided for in EU legislation and to facilitate the free movement of goods within the internal market. Examples of permitted and prohibited health claims are provided in the table below.

☑ Permitted Health Claims	☒ Prohibited Health Claims
Calcium is an essential nutrient for the development of health teeth and bones	Helps your body to resist stress
Fiber helps intestinal function Whole grain may keep your heart healthy	Health claims on alcoholic beverages above 1.2%
High consumption of fruit and vegetables may help reduce the risk of stomach cancer	Boosts your immune system
	Improves your memory
	Preserves youth
	Reduces your calories intake

The role of WHO/EURO related to PHN policies

The role of the Regional Office for Europe of the World Health Organization (WHO/EURO) in the area of public health nutrition is of great importance for European countries. WHO/EURO launched the 1st Food and Nutrition Action Plan (2002-2005) for the European Region in September 2000. WHO/EURO assists member states in developing, implementing and evaluating national food and nutrition action plans. The framework consists of three interrelated strategies:

1. A food safety strategy, highlighting the need to prevent contamination, both chemical and biological, at all stages of the food chain ("farm to fork")
2. A nutrition strategy to ensure optimal health, especially in low-income groups and during critical periods throughout life
3. A sustainable food supply (food security) strategy to ensure enough food of good quality

It is of course very important that WHO/EURO and the European Union cooperate to support each others PHN action. The following gives an example of *how* these two entities support each other. After the WHO/EURO Regional Committee issued a resolution on the implementation of the 1st Food and Nutrition Action Plan in September 2000, the Council of Ministers of the European Union issued the resolution on Health

and Nutrition in December 2000, as quoted above.

At this point it should be mentioned that Korea signed the World Declaration on Nutrition (1992). Therefore, it has committed itself to develop and implement a national food and nutrition action plan. Work on a Korean Food and Nutrition Action Plan has been initiated[17], but not followed up on.

Public Health Nutrition Action in Korea and opinions of Korean Experts

In Korea, comparable to other countries around the globe, the prevalence of overweight and obesity, and of chronic (nutrition-related) diseases is increasing. Furthermore, a 'wellness' and 'health' trend has hit Korea. This greatly increases the concerns related to nutrition misinformation. The time is pressing to initiate strong public health nutrition action to fight the increasing prevalence of adverse conditions associated with nutrition, and to provide high quality nutrition information to all citizens.

In order to receive a better overview of the current situation regarding public health nutrition policies in Korea, I have sent a questionnaire to experts in the field of public health and nutrition in Korea. The "Public Health Nutrition Questionnaire[iii]" was sent directly by email to 25 Public Health and/or Nutrition related Korean Professionals and was also disseminated through the list serve of the Korean Nutrition Society (*Thank you for this!*). A total of 22 questionnaires were returned, and the results of 4 of the 8 questions are summarized below.

One question asked how the respondents perceived the extent of primary prevention efforts supported by the national level 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).

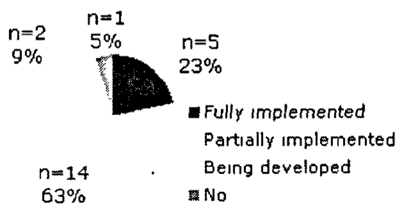
Another question elicited the perceived obstacles for developing and implementing a national PHN policy for Korea. Interestingly, the 'strong' food industry or the possible conflict between agricultural policies and nutrition policies were not seen as a major obstacle. However, the lack of a sense of priority among politicians regarding 1) the importance of nutrition and 2) the importance of chronic, non-communicable diseases, were considered a major obstacle, by 54% and 64% of the respondents, respectively. The results clearly emphasize the importance of creating a stronger awareness among

iii To obtain a copy of the Public Health Nutrition Questionnaire, don't hesitate to email me. kreiselk@web.de

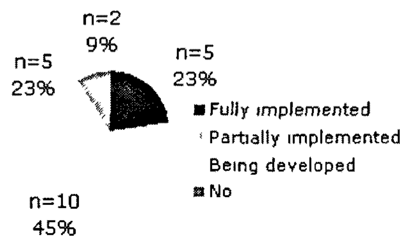
decision-makers about the public health importance of nutrition and its association with non-communicable diseases.

One question asked about the existence of national regulations, legislations, codes or policies related to food and nutrition issues. This question turned out to be quite difficult to answer, which became clear after speaking with some of the respondents. 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 laws, policies or regulations 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 laws, policies or regulations. 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. The pie charts below provide examples of the lack of consensus regarding the existence of national regulations, legislations, codes or policies.

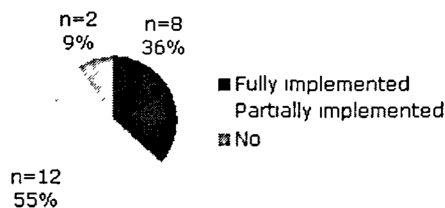
Regulations regarding Labeling
Nutrition labels on food products)



Health Claims, i.e. a statement that associates a food or a substance in a food with a disease or health-related conditions



Food advertisements



Regarding food advertisements, the Food Sanitation Law bans misleading and incorrect ads. At this point, I would like to give three examples, which highlight the need to strengthen the control regarding the implementation of this law. 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 found in the advertisements of three kinds of baby foods." Kim KN (2003). Health and Nutrition Messages in the Baby Food Advertisements of Women's Magazines. Journal of Community Nutrition. 5(3):178-185. 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 caught my eye: "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. (Korean nutritionist can surely not sit back and watch McDonalds disseminate the information that Hamburgers are not more fattening than Korean foods!)

The last two questions of the Public Health Nutrition Questionnaire, which I sent to professionals asked about the perceived importance of PHN for Korea and how important it would be to strengthen the PHN workforce. 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, as they are professionals in the areas of public health and/or nutrition. Never the less, the respondents rated the importance of public health nutrition for Korea as being very high. Now it is important that their voice and the voice of everyone else believing in public health nutrition grow louder, to enable the development and implementation of effective public health nutrition policies in Korea.

Outlook steps needed to formulate a public health nutrition policy

In the following part, I would like to provide suggestions for the future, realizing that some of them may have already been taken up by Korean nutrition researchers.

1. Continue to increase awareness about the importance of a nutrition policy among policy-makers and all key players that should be involved using existing evidence.
2. Conduct an in depth, systematic situation analysis using qualitative and quantitative methods to be able to build on the valuable past, current and planned efforts
a. Identify nutrition-related projects, programs and activities and mobilize the professionals working on them
b. Identify nutrition-related cross-cutting issues inexisting policies and examine whether current policies are being implemented
3. Strengthen the coordination of current efforts after the in depth situation analysis and increase transparency of what is being done
4. Increase the voice of public health nutritionists and those working in the area of nutrition and strengthen the public health nutrition workforce (a lot of qualified people are needed to effectively implement a new policy)
5. Strengthen efforts in nutritional epidemiology, especially research with cohort studies, which are needed to strengthen the evidence for the association between diet and disease
6. Benefit from the "current momentum"
a. Increase the focus of nutrition in the "chronic disease management law"
b. Increase the focus of nutrition in the "lifetimehealth maintenance system"
c. Increase awareness of nutrition-related projects, e.g. "Nutrition Monitoring/ Surveillance System KHIDI. Principal Investigator: Dr Cho-Il KIM.", "Nutrition Management of the Elderly SNU Department of Food and Nutrition. Principal Investigator: Dr Haymie CHOI."

Final statement

I began today's presentation with a quote from former Vice-Minister Park Seung-Ham, and would like to end this presentation with a quote from him, as well. When reading this quote, please keep in mind that he made this statement 25 years ago: "...our national diet has undergone a great transformation due to rapid social changes. (...) Increased national income [resulted in] excessive nutritious intake by certain social classes; [there is a] growing general tendency to consume processed and luxury food items. (...) Diseases resulting from an imbalanced food diet, e.g. high blood pressure, excessive weight gain are problems we must challenge. We must identify, prevent and solve those problems before it is too late."

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