

## 【S2-1】

### Symposium II: Utility of Dietary Patterns in Assessing Chronic Disease Risks

Chair: Dr. Wonok Song-Park

Michigan State Univ & Ewha Woman's University

---

#### INTRODUCTION

Wonok Song-Park, Professor of Human Nutrition, Michigan State University

**Introduction.** Non-communicable chronic illnesses such as cardiovascular diseases, obesity, diabetes and cancer explain about 60% of all deaths and close to 50% of all morbidity in the world. Major risk factors of these chronic illnesses are modifiable and lifestyle-related variables such as dietary behaviors, inactivity, smoking and alcohol consumption. These risk factors are directly associated with intermediary and biological risk indices such as high blood cholesterol, hypertension and overweight. As the global community has become smaller at an unprecedented rate, the distribution and prevalence of chronic illnesses among different countries have also become similar. Subsequently dietary intake and behaviors, important foci of lifestyle-related risk factors of these chronic illnesses, call for new ways to characterize and describe them.

**Background.** In the past dietary intake and behaviors have been assessed by many different means. Commonly dietary assessment and planning for individuals and groups of people have been done by daily **nutrient intakes** which were estimated from food intake data and compared with the Dietary Reference Intakes (DRIs) or similar standards and references; servings of **food group intake** compared with the Food Guide Pyramid or similar recommendations; proportion of population who follow the **general dietary and health guidelines** such as Dietary Guidelines for Americans that were developed for specific nations or groups of people; **meal patterns** including meal skipping and snacking patterns; and **dietary patterns** defined by various ways in the process of developing new methodology. None of these approaches are currently robust enough to address the division of food, food groups, food components vs. nutrients; or meals vs. snacks. These challenges to nutrition researchers today have partly resulted from the plethora of fortified and enriched foods, processed foods, combination dishes, and use of functional foods and beverages that contain nutritive and non-nutritive components that may play antagonistic and synergistic effects. The

concept of food intake through meals, snacks, beverages, functional foods and beverages have also become blurrier than ever, and is expected to accelerate the confusions.

The currently used **means** to obtain the information on dietary behaviors, i.e., 24-h recall, dietary records, food frequency and diet history have also contributed to our challenges in estimating “usual” dietary intake. Developing and expanding methodology to establish valid and reliable methods to describe the “usual” intake of Koreans are urgent to advance our research in human nutrition and nutritional epidemiology. Ultimately, linking measurable dietary behaviors to chronic diseases, in addition to other lifestyle variables and genetic information has led us to look into alternative approaches to assess dietary behaviors of population as well as individual. One of those approaches that have emerged recently is dietary pattern.

**Objectives.** The purposes of this symposium are to learn directly from the researchers about their studies published in the scientific literature in past recent years; to understand and critically discuss why and how these were conducted; to discuss the strengths and weakness of the dietary pattern as a research method to measure dietary behaviors; and to brainstorm ways to resolve critical assumptions and limitations inherent with the new research method. This symposium is consisted of several distinctive studies in terms of study subjects, sources and means of collecting dietary behaviors, and statistical methods and interpretations used. For the maximal learning experience of the participants in this symposium, each speaker will expand a specific aspect of one’s presentation: research methods and methodology by **Dr. Joung**; findings and interpretations by **Dr. Oh**; assumptions and limitations by **Dr. Yang**; and overall goals and needs, and future directions/recommendations by **Dr. Song-Park**. The ultimate goal of the symposium is to discuss nutrition research methodology that is scientifically sound from statistical, theoretical and nutritional perspectives to quantify usual dietary behaviors of Koreans.