Objective: The objective of this proposed investigation is to gain an understanding of the impact of social, economic, gender, ethnic and demographical disparities on hypertension, diabetes, hyperglycemia, dyslipidemia and obesity, the major risk factors of metabolic syndrome and chronic kidney disease (CKD) in the Taiwanese population using evidence-based method.

Methods: A series of studies will be conducted, using evidence-based method, to delineate the risk factors of chronic metabolic diseases, especially metabolic syndrome and CKD. The study will involve extensive review of literature and statistical analysis of available data sets of large scale national studies such as the Elderly Nutritional and Health Survey in Taiwan and the National Health Interview Survey (NHIS), two government sponsored national representative studies in Taiwan. Evidence-based principles and methods will be applied. The study will analyze the impact of social, economical and ethnic disparities in the prevalence of metabolic syndrome in elderly Taiwanese in year one. The impact of socioeconomic, lifestyle, gender and ethnicity on hypertension, diabetes, dyslipidemia, central obesity and hyperuricemia will be analyzed. The study will analyze the impact of social, economical and ethnic disparities on chronic kidney disease in elderly Taiwanese in year two. The study will analyze the impact of the lifestyle-related metabolic diseases (mainly metabolic syndrome and chronic kidney diseases) on the quality of life of the elderly Taiwanese. Regression analysis will be the major analytic statistics to be applied. Results will be published in reputed academic journals.

Expected outcome: Results will help us understand the impact of disparities on the major risk factors of metabolic syndrome and chronic kidney disease and therefore enable us to delay the onset of metabolic syndrome or chronic kidney disease.

Significance: The prevalence rates of metabolic syndrome and chronic kidney disease are extremely high in Taiwanese population, and are likely to go even higher as people become more sedentary and less physically active. Delineating the impacting factors is an essential step toward taking corrective actions toward promoting health of our citizens. Results of this exhaustive study will enable us to have a clear understanding of the impacting factors. The information gained will be valuable for planning health promoting strategies and eventually help to curtail healthcare cost.

Key words: Diet, Lifestyle, Metabolic syndrome, Chronic kidney disease