Health Examination Surveys Conducted among Japanese Americans Living in Seattle and Japanese Living in Japan: Results of Study to answer the question “Are Japanese in Japan healthier than Japanese Americans in Seattle?”

The people of Japan are often considered to be a healthier population than are Americans. Japanese women on average live to 87 and Japanese men to 80, as compared to 81 years for American women and 76 for American men (OECD data). However, a comparison of cause-specific death rates indicates that the relative health status of the two populations is a more complicated matter. Mortality of coronary heart disease (CHD) in the US is two times higher than in Japan, while mortality of stroke in Japan is two times higher than in the US. Another extreme example is that mortality of stomach cancer in Japan is 11 times among men and 8 times among women higher than in the US. Why do such differences in mortality of these diseases exist between the two nations? Are the differences due to race (genetics) or due to the environment?

A strategic method for researching these intriguing questions suggested itself with the accessibility of Japanese Americans in the Seattle area as research subjects. This population is considered genetically very similar to the people of Japan, but as being substantially American in their nutritional and lifestyle background. Therefore, in 1989 we initiated the Seattle Nikkei Health Study to examine the health status of Japanese Americans in comparison to Japanese living in Japan (called native Japanese). First, we focused on cardiovascular disease and its risk factors, since CHD and stroke have been major contributors to mortality both in the U.S. and in Japan. We compared atherosclerotic indices and risk factors between Japanese Americans and native Japanese to detect effects due to the environment (changes in lifestyle and diet) and ultimately utilize our study outcomes for future prevention. Please see our research papers 1–4.

Then, we examined major risk factors of stomach cancer, *helicobacter pylori* infection and chronic atrophic gastritis, among Asian immigrants from Japan, China, South Korea, The Philippines and Vietnam. Please see our research papers 9 and 10 listed.

In our project, we used the measurement device of aortic pulse wave velocity (PWV) to estimate stiffness of aortic artery reflecting the extent of
arteriosclerosis or atherosclerosis (see No. 3 on the list). Recently, with cooperation with Dr. Kohji Shirai at Toho University, Fukuda Denshi Company improved the original PWV measurement device and created a new device, VaSera VS-1000, to measure cardio-ankle vascular index (CAVI) expressing a stiffness and arteriosclerosis indicator of thorax, abdomen, common iliac, femoral and tibial arteries. We made some research contributions to strengthening the justification for the use of CAVI in cardiovascular disease screening (see 5–8 on the list).

As a basic data-gathering mechanism, we adopted the cardiovascular screening program developed by the Epidemiological Arteriosclerosis Research Institute (EARI) in Japan Health Promotion Foundation which has been conducting cardiovascular disease prevention screening for company employees and their families throughout Japan. By doing so, EARI became a partner in our research providing us with data of native Japanese which we used in direct comparisons against our Seattle data. We began screening Japanese Americans in the Seattle Metropolitan Area in the fall of 1989 and continued to the fall of 1994. About 1,500 adults completed screening tests and questionnaires. The generational composition of our sample showed the following distribution: 12.3% Issei (first generation), 49.4% Nisei (second generation), 37.0% Sansei (third generation), and 1.3% Yonsei (fourth generation). This distribution is significant for our study, for 88% of the subjects were American-born persons who are quite Americanized in their habits, and therefore are largely Americans in their nurturance.

The study subjects in Japan consisted of 4,134 native Japanese males and females randomly selected from 31,068 people who underwent the disease prevention screening at the EARI. They were from prefectures of Tokyo, Kanagawa, Saitama, Chiba, Gunma, Ibaraki and Tochigi. More male workers underwent the screening than female workers, reflecting the current labor situation in which male workers greatly outnumber female workers in Japan.

Overall scope of our studies is presented in PowerPoint format in No. 11 on the list.

Lastly, I would like to express my sincere appreciation to Mr. Kenji Suzuki as a research partner for providing many suggestions and resources to conduct cardiovascular disease prevention screening in Seattle and for sharing the
screening data from Japan Health Promotion Foundation enabling us to conduct comparative analyses between Seattle and Japan. Also, I thank many colleagues, Nikkei community and other Asian organizations, and many Japanese Americans for their wonderful support and collaboration. With much appreciation, I acknowledged the permissions to copy our research papers which were given by Journal of Atherosclerosis and Thrombosis, International Journal of Epidemiology, and Japanese Journal of Public Health (including permission of translation).

Tsukasa Namekata, Ph.D., Dr.H.Sc., F.A.C.E.
Project Director