A Longitudinal Study of Dietary Supplement Use in Community-living Middle Age and Elderly Japanese.

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INTRODUCTION: There are few studies about dietary supplement use in Japan. The purpose of this study is to clarify the dietary supplement use in the community-living Japanese population.

METHODS: Dietary supplements were grouped into 10 major categories. Some categories were further classified into sub-categories. To collect information on dietary supplement use in the previous year we conducted an original self-administered dietary supplement frequency questionnaire. The subjects were participated in the National Institute for Longevity Sciences Longitudinal Study of Aging (NILS-LSA) from baseline (2000–02; males; n = 1,152, females; n = 1,107) to seventh (2010–12; males; n = 1,178, females; n = 1,152). The prevalence of dietary supplement uses and trend of
them according to waves were examined by Cochran-Mantel-Haenszel test controlled by age.

RESULTS: At the baseline, 59% of males and 67% of females consumed any dietary supplements. Females were more likely to take them than males in all waves ($P < 0.01$). In major category, the prevalence of Vitamin intakes was 10% in males and 14% in females, liquid type dietary supplements (Drink type) was 23% in both sexes, and other type of supplement including efficient ingredients for health except nutrients (Others) was 9% in males and 14% in females at the baseline. The users of Drink type (both sexes, $P < 0.01$) and Vitamin (females, $P = 0.02$) tended to decrease with wave. In Vitamin sub-categories, Vitamin E and C users in females decreased with wave ($P < 0.01$). However, Others tended to increase with wave in both sexes ($P < 0.01$), especially, anthocyanin, green leaves juice and dietary supplements for joints such as chitosan and chondroitin-sulfate and supplements for beauty such as CoQ10 and collagen increased with wave in both sexes ($P < 0.01$).

CONCLUSIONS: More than a half of the community-living population used dietary supplements in Japan. The purpose of dietary supplement intakes shifted from compensating for lack of nutrients to taking efficient ingredients for health.