

The examination of dietary survey methods used in the Nagasaki Prefecture health and nutrition survey

Abstract

We conducted a Brief-type Self-administered Diet History Questionnaire (BDHQ) survey in conjunction with the use of the food-weighing method involving participants of the 2016 Nagasaki Prefecture health and nutrition survey (prefectural survey), in order to compare the obtained data and examine the questionnaire's usefulness. As the results of a comparison of the two dietary surveys, the difference in the mean values of energy intake was -1.2 to +2.9%, showing the validity of the data. With regard to the level of nutrient intake, the validity was also confirmed, as the difference in values of energy-producing nutrients was less than $\pm 10\%$ for most items. On the other hand, the validity of the data for vitamins was not confirmed, as the difference was more than $\pm 10\%$ for many items. This variation may be caused by the difference in the time of measurement between the food-weighing method (1 day) and BDHQ (1 month).

The results of this study showed that the implementation of the BDHQ during the prefectural survey is effective in reducing the burden on investigators, and may contribute to understanding the regular nutritional intake of people in the Prefecture and improving their health awareness through feedback of the questionnaire results. However, its introduction to the prefectural survey should be carefully considered, keeping in mind the low validity of the data for some nutrients, such as vitamins, as well as cost issues and characteristics of the questionnaire.