

I have been working on the development of dietary survey methods in collaboration with the Department of Public Health, Graduate School of Medicine, Osaka City University (Osaka Metropolitan University). I introduced the concept of recipe-based database to the conventional material-based database, and within this, I established a method for developing a general food frequency questionnaire (FFQ)<sup>\*1,\*2</sup>. As a result, I was also involved in the development of a semi-quantitative food frequency questionnaire kit called "Jissun-boshi" that uses a real-size photo book. This method is being applied to the development of FFQ for children.

Since 2001, I have participated as an advisor in the working group of the diagnostic evaluation criteria committee of The Japanese Society for Spine Surgery and Related Research, and participated in the development of "the Japanese Orthopaedic Association Back Pain Evaluation Questionnaire (JOABPEQ)" and "the Japanese Orthopaedic Association Cervical Myelopathy Evaluation Questionnaire (JOACMEQ)"<sup>\*3</sup>. Here, I applied multivariate analysis methods such as factor analysis and discriminant analysis.

Since the establishment of the Drug and Food Efficacy Evaluation Center in 2005, I have served as a biostatistician in the role of statistical analysis manager and allocation manager in independent clinical research, including food efficacy evaluation studies and large-scale multi-center studies. We also worked to improve the data management system, developing a PC-based case allocation system and a web-based case allocation system, and constructing an automated data cleaning system.

\*1: C.Date, M.Fukui et al., Aiming to establish a new food frequency survey method - Examination of reproducibility and validity -, (1995) Journal of health and welfare statistics Vol. 42 p22-29

\*2: C.Date, M.Fukui et al., Development of food frequency questionnaire, (1998) the Japanese journal of nutrition and dietetics Vol. 56 p313-325

\*3: M.Fukui, K.Chiba et al. JOA Back Pain Evaluation Questionnaire (JOABPEQ)/JOA Cervical Myelopathy Evaluation Questionnaire (JOACMEQ) The report on the development of revised versions April 16, 2007.(2009) J Orthop Sci, 14, p348-365