Philippine Food Composition Tables (PhilFCT®) Online Database: Data Updates and Features Enhancement

Kristine B. Nacionales, Regina G. Rodriguez, Ma. Ariza C. Baylosis, Aries G. Lundag
Food Quality and Safety Section-Food Research and Development Group

INTRODUCTION

The Philippine Food Composition Tables (PhilFCT®) Online Database is the country’s web-based nutrition tool containing nutrient data, descriptors, and photos of over 1,500 commonly consumed food items in the Philippines. It is one of the projects under the FNRI’s harmonized ICT program which aims to better serve the needs of food and nutrition community, academe and industry. The PhilFCT® can be used in areas of nutrition and public health surveys, nutrition education, dietetics and clinical practice, food product development, agricultural research, food regulation and consumer action program. Given this wide variety of areas, users’ demand on local food data continually increased thus the project aimed to update and enhance PhilFCT® with additional food data, photo documents and user-friendly features.

MATERIALS AND METHODS

Food samples were collected in Metro Manila markets and nearby provinces. Samples were prepared, photo documented and uploaded in the database. Additional nutrient data – Cholesterol, Monounsaturated Fatty Acid (MUFA), Polyunsaturated Fatty Acid (PUFA), Saturated Fatty Acid (SFA), Retinol, Beta-carotene and Retinol Activity Equivalent (RAE) – were obtained from the generated and compiled food composition data by the Food Quality Unit. Generated nutrient data were then encoded and uploaded in the database Updating of features and monitoring the database management system was done by the developer to provide a user-friendly interface and prevent possible bugs and errors. Refer to Figure 1 for sample photos of activities and methodologies conducted.

Figure 1. PhilFCT Activities and Methodologies (Sample Collection; Photo Documentation; Photo Editing; Programming and Debugging; Data Encoding and Checking)
The PhilFCT® enhancement project collected and prepared additional 251 photo documents including twelve photos of fishes from Bureau of Fisheries and Aquatic Resources IV-A. Refer to Figure 2 for sample photo documents collected, edited and uploaded. A total of 1201, 1178, 1178, 238, 263 and 1456 data on cholesterol, MUFA, PUFA, SFA, retinol, beta-carotene and RAE were checked and encoded respectively (see Figure 3).
The updated PhilFCT® addressed one of the challenges in food and nutrition research by providing quality and accessible local food and nutrient database. Continuous enhancement, maintenance and strengthening security controls of the online database are necessary in order to provide quality service to the users locally and internationally.