H-F. LAI, U. CHAO. ***A food intake monitoring system to provide nutritional management for elderly people.*** *Gerontechnology 2014; 13(2):227;* doi:10.4017/gt.2014.13.02.338.00 **Purpose** The elderly make up the greatest proportion of people in Taiwan[1]. The health of elderly people not only affects the elderly but also has significant impacts on health care and other support systems. Past research that examines the relationship between adequate nutrition and health find that diet is an important factor[2]. Adequate nutrition can decrease the severity of disease, and extend the duration of independence for elderly people[3]. Moreover, adequate nutrition also effects the quality of life for elderly people[4]. This paper will propose a system that employs cell phones designed to help elderly people improve variety in their diet and to promote improved nutritional intake. **Method** The proposed system was developed using a prototyping paradigm. The user requirements, interface and function were analysed based on input from elderly people. In this study, we establish user and food recipe databases that are designed to improve health management. The flow of information can be expressed as follows. First, the user registers an account and chooses from a list of predefined recipes. This information will then be used in a cell phone application to help users decide what to buy or eat. The user can apply the cell phone scanner app to input the barcode of a food item; the app then embeds the item in an XML query and sends it to the web server. The web server contains a list of barcodes and nutritional information[5]. After scanning the barcode, the user will choose whether select either 'buying mode', 'cooking mode', or 'managing mode'. In 'buying mode', the users can see detailed nutritional information related to that single food item and can discover how that item would affect their overall daily diet. In 'cooking mode', the users can search for a suitable recipe based on certain food items. 'managing mode' is used to keep track of a user's caloric and nutritional intake throughout the day. **Results & Discussion** In order to help elderly people improve their nutrition knowledge and health, low-cost suggestions and measuring tools are needed, such as are available on our proposed system. We propose a system that employs cell phones and provides the following functions: (i) A recipe suggestion system that help the users to improve the variety in their diet; (ii) a convenient method to enter the name of food item; (iii) a method to track and record the user's nutritional consumption and trends; (iv) a system that can be integrated with their personal health care management system.

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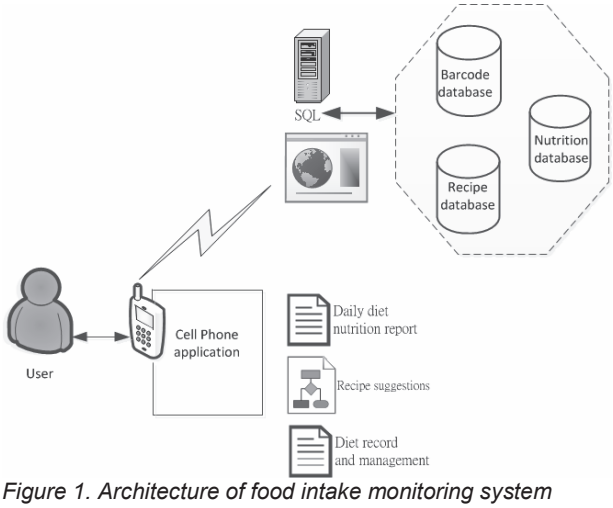

Figure 1. Architecture of food intake monitoring system