

***Design and Development of Recommendation for Daily Menu Complimentary
Foods Information System Based on Optimal Protein Needs Using Fuzzy
Mamdani***

Aldo Daffa Daniswara
*Study Program Health Information Management
Health Programs*

ABSTRACT

Protein Energy Malnutrition (PEM) is a harmful condition for infants because it will affect their growth. Between the age of 6 to 24 months, infants can receive protein from breast milk and complementary foods. In East Java data show that only 74% from 77% standard. The goal of this research is to give the parents the right complementary food menu with optimum calories and protein for their children. This research and development type of research is creating a system with Fuzzy Mamdani logic as the fundamental concept to calculate how many optimum calories dan protein the infant needs from their gender, age, and weight. The system was tested by counting its cyclomatic complexity by white box testing with the result is between CC and independent path are matching. In addition, a system evaluation was also carried out for users and the results obtained by most users considered the system to be in accordance with their needs. The output of this research is a system that could give complimentary food recommendations with optimum calories and protein for the infant This system might be developed for future research by adding new entities to its database or giving it a tracking feature to track infant growth.

Keywords: *Fuzzy Mamdani, Complementary Foods, MEP, Whitebox*