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Prevalence of Malnutrition and Associated Factors among Young Children in the Eastern
Region of the Republic of Cameroon

（カメルーン東部州に居住する年少の子どもの栄養不良と関連要因）

Malnutrition continues to contribute to a high under five mortality rate. The present study was conducted to clarify the prevalence of child malnutrition and the association with time of starting complementary foods in aged 0–5 years children in the Eastern Region of the Republic of Cameroon. Starting complementary foods at appropriate time does not require a cost to implement, unlike improving the quantity and quality of food in developing countries. Therefore, feasibility and sustainability can be expected.

Mothers (N = 212) were interviewed using a structured questionnaire. Height (H), length (L), and weight (W) measurements of the child were determined along with Z-scores (Z) of WHO child growth standards 2006. The prevalence of stunting ($H/LAZ < -2$ standard deviations [SD]), underweight ($WAZ < -2SD$), wasting ($WH/LZ < -2SD$), MUACAZ-score $< -2SD$ and HCAZ-score $< -2SD$ were 45.8%, 30.2%, 11.3%, 17.5% and 6.1%, respectively.

Next, the correlation of the H/LAZ, WAZ, WH/LZ, MUACAZ and HCAZ values and the child's age, sex, time of starting complementary foods (divided into four categories [1])

starting from before 4 months old, 2) from 5–7 months old, 3) after 8 months old, and 4) those who did not start] and two categories [1) starting from before 4 months or after 8 months of life and 2) starting from 5–7 months old]), were analyzed using Student's t-test and Analysis of Variance. The analysis was performed for groups from 0-5, 0-2, and 2-5 years of age. Next, Multiple regression analysis was performed using the values of all indicators as the dependent variable and the time of starting complementary foods, child's age, and sex as independent variables. Even taking into consideration biological sex and age, there was a significant association in the effects of time of starting complementary foods on the H/LAZ, WAZ, WH/LZ and HCAZ values. Next, another multiple regression analysis was performed using the values of all indicators as the dependent variable and the ethnic group, mother's educational level, occupation of husband and residence as independent variables in children aged 2–5 years. Even after considering sociodemographic variables, there was a significant association between the time of starting complementary foods and WAZ, WHZ, MUACAZ and HCAZ value.

This study considered the association between children's nutritional status and the time of starting complementary foods and found that 1) about half of the children in the studied area exhibited stunting, which indicates chronic malnutrition, and approximately 30% of children were underweight; and 2) starting complementary foods at an appropriate time has a positive effect on nutritional status from 2 years of age. These findings suggest that promotional activities concerning the time of starting complementary foods are necessary.