

**COEXISTENCE OF ANEMIA AND  
COEXISTENCE OF MALNUTRITION IN BOTH  
MOTHER AND UNDER FIVE CHILDREN IN  
MYANMAR**

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## ABSTRACT

Malnutrition is deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. Anemia refers to a condition in which the number of red blood cells and consequently their oxygen carrying capacity is insufficient to meet the body's physiological needs. Anemia and nutritional status of women and children are inter-related because they shared the same household, environment and eating pattern. A secondary data analysis using Myanmar Demographic and Health Survey (MDHS) 2015-2016 was done to assess the coexistence of anemia and coexistence of malnutrition in both mother and under five children in Myanmar. A total of 3,019 pairs of women and children for coexistence of anemia and 3,710 pairs for coexistence of malnutrition were included in this study. One in three pairs of women and children were found anemic and less than one per ten pairs were found malnourished in the respective population. Multivariate logistic regression model showed that the odds of getting anemia in both mother and child was 2.3 times (95%CI:1.7,3.2) higher among children of 0-11 months old group and 1.9 times (95%CI:1.5,2.4) higher in 12-23 months old group compared to 24-59 months old group. The odds of being anemia was 1.25 times (95%CI:1.00,1.57) higher in households with 5-6 family members than those with <5 members and 1.32 times (95%CI:1.05,1.66) higher in households with >6 family members than those with <5 members. Residents who lived in Sagaing region had 3.2 times (95%CI:2.0,5.1) odds of getting anemia than those lived in Kachin state. Households with poor socio-economic condition had 1.5 times (95%CI:1.2,1.9) odds of getting anemia compared to households with high socio-economic condition. Households with average socio-economic condition had 1.4 times (95%CI:1.0,1.9) odds of being anemic than those with high socio-economic condition. The odds of getting malnutrition in both mother and child in which children age 12-23 months was 2.2 times (95%CI:1.3,4.0) higher and those with children age 24-59 months was 2.2 times (95% CI:1.4,3.8) higher than those with children age 0-11 months. Participants in which children with average birth size had 2.1 times (95%CI:1.3,3.2) higher odds and those with children with below average birth size had 4.1 times (95%CI:2.5,6.6) higher odds of getting malnutrition

than those with above average size at birth. Among women with single child, the odds of coexistence of malnutrition in both women and children was 2.32 times (95%CI: 1.2,4.7) higher compared to women who had birth interval <24 months between two consecutive births. And, within pairs of participants where women who had birth interval  $\geq 24$  months had 2.6 times (95%CI:1.3,5.0) odds of getting malnutrition than those who had <24 months birth interval. Coexistence of anemia and coexistence of malnutrition in both mother and under 5 children becomes major public health challenges in Myanmar. Prevalence of coexistence of anemia was 5 times higher than prevalence of coexistence of malnutrition. Based on the findings of the current study, anemia and nutrition program in the community should be strengthened to fill the period gap between EPI program and before school going age. Further researches should be conducted using mixed method approach to explore the determinants of coexistence of anemia and that of malnutrition.