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**Community based interventions reduced the maternal anemia and hence reduced the low birth weight incidence****Muhammad Sarwat Mirza and Zulfiqar Ali Sario**  
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In Pakistan, 32% of all babies born have low birth weight which is a major contributor to new born and infant mortality and stunting of 44% of children <5 years of age. We conducted first prospective community-based study in Pakistan that has researched the effect of Multiple Micro-Nutrient (MMN) along with a set of composite community-based interventions on prevalence of anemia among pregnant women and incidence of low weight births in the remotest and highly food insecure regions. The hypothesis postulated that the proper counseling and guidance at community level about nutrition, dietary intake of proper local foods and micro-nutrient supplements (including the iron-folate) may improve the nutrition status of pregnant women and hemoglobin level through improved dietary practices and ensures the regular intake of micro-nutrients. All these impacts to improve in birth weight of the newborn child. Study participants were 1,204 pregnant women (600 in intervention and 604 in control group). The interventions were nutrition counseling, provision of multiple micro-nutrient and de-worming tablets, regular follow up, measurement of weight, hemoglobin in each trimester of each enrolled pregnant women. In the intervention group 69.1% women modified their diet. Significantly higher proportion of women increased the number of meals and content. 98.7% pregnant women reported regular intake of multiple micronutrient. The change in mean hemoglobin levels in the intervention area was 2 gm/dl, which is significantly higher. The low birth weight among the intervention group women was 3.8%, significantly lower than the national figure of 32%. Analysis showed that per unit (kilogram) increase in weight since the enrollment higher Hb in last trimester, a higher gain in Hemoglobin and BMI levels reduced the risk of low weight birth by 0.90 times. Our study successfully demonstrated that in rural remote areas where the food insecurity already prevailed, community-based provision and improving intake of multiple micro-nutrient to pregnant women, de-worming, dietary counseling, significantly reduced the prevalence of anemia and resultantly reduced the incidence of low birth weight.

**Biography**

Muhammad Sarwat Mirza has wide experience in the field of program/project designing and development, program management, monitoring, evaluation and research especially related to reproductive health, nutrition and family planning, working with Health and Nutrition Development Society for last 22 years. He has obtained his MBBS and Master's in Public Health and had served at Department of Pediatrics, The Aga Khan University Hospital, Pakistan. He had experience of developing behavior change communication material for promotion of breast feeding, dietary habits of pregnant and lactating women, nutrition for children and adolescents among the rural communities. Recently, he has concluded two operation research projects with multiple partners and donors on nutrition and reproductive health issues of pregnant women to improve the birth outcome and reduce the low birth weight incidence and rapid assessment of drought-stricken area in Pakistan. He has worked on several clinical research projects such as dietary management of diarrhea, control trial of local food, zinc supplementation in malnourished children. He is presently serving as Research Advisor for community health initiatives related to food, nutrition and research to Allama Iqbal Open University, Pakistan for post graduate medical students.

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