

TITLE: COMPARISON OF PREVALENCE OF NUTRITION-RELATED RISK USING ADDITIONAL EVALUATION TECHNIQUES AND ALTERNATE INDICATORS

AUTHOR(s): C. Fields-Gardner, M.S., R.D., S.M. Ward, M.A., J. Thoya. TCE Consulting Group, Cary, IL; World Initiative for Soy in Human Health (WISHH), St. Louis, MO; Catholic Relief Services, Nairobi, Kenya.

LEARNING OUTCOME: To understand the potential benefit in using alternative evaluation and additional measures to determine prevalence of nutritional risk in populations.

TEXT: Nutritional risk prevalence is reported using standard indicators of Z values ≤ -2.0 for children and body mass index (BMI) for adults. This project compared prevalence of nutritional risk in a population enrolled in a nutrition study in the Nyanza Province of Kenya by standard indicators to alternative evaluation and additional nutritional risk indicators, such as percentiles for height and weight and hand grip evaluation. Alternative evaluation used the -1.5 Z score level for standard measures and mutually exclusive categories outline in a Composite Index of Anthropometric Failure (CIAF). Measures were taken on 191 adults, 178 children ≤ 5 years old, and 260 children between 5-18 years old. Standard risk factors showed that 5/63 adults (8%) had a BMI ≤ 18.5 and that for children: 107 (24%) were stunted, 60 (14%) were underweight for age, and 8 (2%) were wasted. Using $<10^{\text{th}}$ percentile as a marker with children under five showed 35% stunted, 31% underweight, and 20% wasted. CIAF categories of undernutrition for children under five increased prevalence to 38%. Using the standard categories at a -1.5 Z level (approximately equivalent to $<10^{\text{th}}$ percentile) suggested a 34% stunting, 29% underweight, and 5% wasting. CIAF at a level of -1.5 Z score increased the prevalence to 40%. Hand-grip measured in participants over five years old suggested that 31% and 38% showed risk by left and right hand grips respectively. Additional measures and alternative evaluation of measures may provide more accurate prevalence rates of nutritional risk and assist in determining appropriate interventions.

FUNDING DISCLOSURE: This work was funded by the World Initiative for Soy in Human Health (WISHH), St. Louis, MO