



KIDS* IN THE US HAS AT LEAST 1 INDICATOR FOR UNDERNUTRITION¹

Overall summary

A recent definition for undernutrition was utilized to categorize US children via anthropometrics. The prevalence of mild, moderate, and severe undernutrition was consistent across age, gender, race, and income categories.

Utilization of current diagnostic indicators to characterize pediatric malnutrition among US children

Williams JA, et al. Poster presented at: 5th International Conference on Nutrition & Growth; March 1-3, 2018; Paris, France.

Historically, extreme cases of suboptimal growth have been used to guide the initiation of interventions for malnutrition (undernutrition); however, recent consensus statements on pediatric malnutrition (undernutrition) offer additional strata of anthropometrics that may help delineate pediatric outcomes.

To address the paucity of data for the extent and characteristics of pediatric undernutrition, we analyzed data for 13,950 children, 1-13 years of age, from the 2005-2014 National Health and Nutrition Examination Survey to assess the prevalence of undernutrition and differences in growth measures.

Z-scores for weight-for-height, BMI-for-age, height-for-age, and mid-upper-arm circumference were generated from the 2000 CDC growth charts. Children were stratified into classifications of no indicators, mild, or moderate/severe undernutrition utilizing z-score characteristics outlined in the ASPEN/AND Pediatric Malnutrition Consensus Statement.^{2,3}

Differences in z-scores across growth chart metrics were compared across undernutrition categories.

The prevalence of mild and moderate/severe undernutrition was 16.4% and 2.4% of the sample, respectively.

Children from households below 100% of the federal poverty rate had the greatest rates of moderate/severe undernutrition (3.1%), while mild undernutrition was highest (18.8%) in those at 185-300% of the poverty rate. Z-scores differed significantly across all levels of undernutrition for all growth chart metrics, showing poorer mean growth metrics in those with undernutrition.

Pediatric undernutrition is a prevalent condition that transcends the prior focus on <5th percentile of growth curves and impacts children from a variety of backgrounds. Efforts to enhance screening are needed and early intervention to ameliorate the ramifications of undernutrition are critical to promote optimal growth and development.

UNDERNUTRITION IMPACTS KIDS ACROSS DEMOGRAPHIC FACTORS

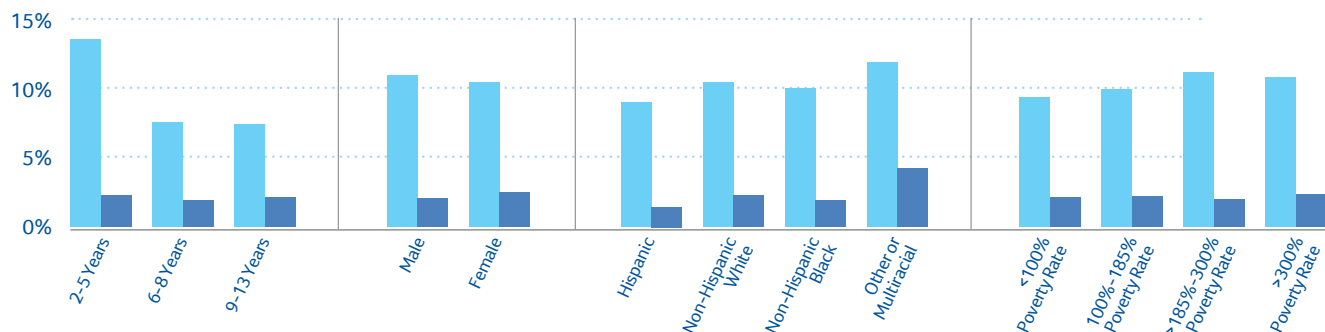


Figure 1: Rates of Pediatric Malnutrition (Undernutrition) by Age Group, Gender, Race, and Income Category
Graph summary details modified from original poster.

■ MILD UNDERNUTRITION ■ MODERATE/SEVERE UNDERNUTRITION

* Kids defined as those aged 1 to 13 years.

References: 1. Williams JA, et al. Utilization of current diagnostic indicators to characterize pediatric malnutrition among US children. Poster presented at: 5th International Conference on Nutrition & Growth; March 1-3, 2018; Paris, France. 2. Mehta NM, et al. *JPENJ Parenter Enteral Nutr.* 2013;37(4):460-481. 3. Becker P, et al. *Nutr Clin Pract.* 2015;30(1):147-161.