

COMPARISON OF WEIGHT-FOR-HEIGHT AND BMI-FOR-AGE FOR ESTIMATING OVERNUTRITION BURDEN IN UNDER-FIVE POPULATIONS WITH HIGH STUNTING PREVALENCE

AIM: To compare weight-for-height and BMI-for-age definitions for quantifying overnutrition burden.

POPULATIONS

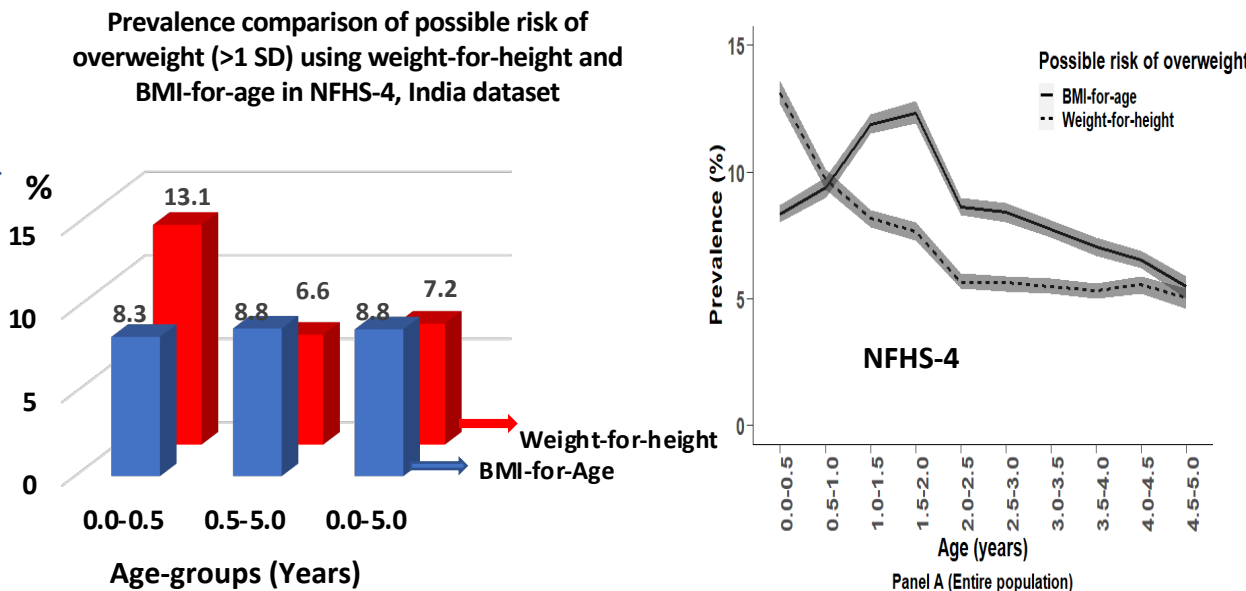
Theoretical consequences of ignoring age were evaluated. Prevalence of overnutrition was then compared in simulated (stunted, intermediate, & tall) and real-life datasets.

STATISTICAL ANALYSIS

Over-nutrition prevalence estimates were compared between : two metrics for both the sexes from 0-60 months in synthetic datasets (short, intermediate & tall populations) and three real-life datasets from India (Meerut study, NFHS-4 & CNNS).

RESULTS

Weight-for-height cut-offs were lower than BMI-for-age till 7-8 months, after which the cut-offs flipped.



CONCLUSION: In under-five children, over-nutrition is under-estimated with weight-for-height in comparison to BMI-for-age in populations with high prevalence of stunting. The relative invariance, with age and height, of BMI-for-age, favors its use.

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