

Supplementary table 1: Assessment tools used for the quality appraisal of the included studies, based on STROBE checklist.

Sample size	Sampling methodology (Representativeness)	Responses rate	Outcome measure	Statistical analysis	Confounding	Study limitations	Ethical considerations
[1 point] Study reported sample size calculation	[1 point] Random selection from representative list of the target population	[1 point] High response rate (> 70%)	[1 point] Valid acceptable definition of malnutrition (stunting, wasting, underweight) based on either WHO growth standards or NCHS* and objectively measured	[1 point] Statistical techniques and reasons for choosing techniques are fully explained.	[1 point] Well adjusted (Individual, household and community level factors). Adjusted and unadjusted Odd ratio (OR) or Relative ratio (RR), confidence interval and <i>p</i> -values were well presented	[1 point] Stated study limitations	1 [point] Studies with ethical consideration
[0 point] No sample size calculation	[0 point] Non- random selection but from sampling frame that represent the community	[0 point] Moderate/Low response rate (<70%)	[0 point] No valid definition of malnutrition	[0 point] Statistical techniques are not explained.	[0 point] Minimal adjusted for some or none of the confounders.	[0 point] No stated study limitations	[0 point] Studies with no ethical consideration

*NCHS = National centre for health statistics