Reviewer's report

Title: Height, weight and BMI percentiles and nutritional indicators relative to the international growth references among Pakistani school-aged children

Version: 1 Date: 12 December 2011

Reviewer: anuradha khadilkar

Reviewer's report:

Major Compulsory Revisions:
This is a paper on growth percentiles of Pakistani children and comparison with CDC, WHO charts. There are several major concerns with this paper.

1. The main concern for this reviewer is what the aim of the paper is. If aim is to provide references, sample is not nationally representative. Further, the WHO advises that for construction of references, particularly the 3rd and 97th percentile, 200 children per age sex group is necessary, in most groups the numbers are smaller than this. Another concern is, as Pakistan is a developing country, references have to be constructed on an affluent population which has the best chances of nutrition and health care.

2. Why has the age group of 5-12 been selected? Authors need to justify this. Most boys would grow after this (pubertal growth spurt). In that case, why was the study not conducted till 18 years?

3. In the data collection section, details of height and weight scales are required. How many senior medical students performed measurements? Was the coefficient of variation, intra and inter observer variability assessed? Since the whole study is based on height and weight measurements, these data are vital.

4. Since authors have included children from various SES and from rural and urban setup’s, its vital to present data comparing these groups.

5. The IOTF ref 18 described by authors does not give cut-offs for thinness, how were these calculated?

Minor Essential Revisions
Abstract:
Gives several abbreviations without first giving their long forms

Background:
Aim of the study seems a little unclear. If it is to provide national references for Pakistani children, then, second para which suggests that authors are making comparisons of the WHO and CDC charts for use for Pakistani children needs to be modified. Or, is the aim making comparisons? This is a little unclear.

Methods:
PI define age group for primary school children
Authors have said on pg 5, 5th line from below: authors say, 'For each school, a list of all classes in the five grades (one to five) was obtained and one class in each grade was randomly selected'. However, the authors have more than 5 age groups.

Statistics:
Which program/ method was used for the LMS?

Discussion:
More comparisons should be presented with other Asian or available Pakistani data.

References:
Formatting needs to be checked.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests