Author’s response to reviews


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Dr. Alessandro Marcon
Editor, BMC Pulmonary Medicine
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Dear Dr. Marcon,


Thank you for considering our manuscript for publication in the BMC Pulmonary Medicine journal. We extend our gratitude to the reviewers for their detailed and thoughtful second round of comments to improve the manuscript.
Please find below our responses to each of the second round follow-up comments.

Kind Regards,

Tafadzwa Madanhire

Editor’s comments

1) Reference to Quanjer et al. is repeated (n. 8 and n. 32). Please amend and renumber references accordingly.

We thank the editor for the comment and we have revised the reference list accordingly.

2) In the abstract you refer to “British 1990 SRE” but in the manuscript you cite “Polgar et al. 1971” (different year). Also, in the abstract you use both “British 1990” and “Polgar” labels for the same SREs. Please use a uniform labelling here and throughout the manuscript.

We thank the editor for the comment and we have indicated in the abstract that the British 1990 reference equations were used to generate anthropometry reference equations and not spirometric reference equations (SRE).

Anthropometry z-scores were generated using the British (1990) reference equations which adjust for age and sex. P2: L12-13

Comparisons between the African-American GLI2012 SRE and Polgar equations (currently adopted in Zimbabwe) on the percent-predicted derived values were also performed. P2: L16-17

Furthermore, in the abstract, we have used the terms “British 1990” and Polgar SRE in reference to anthropometry z-scores (P2: L12-13) and SRE comparison to the African-American GLI2012 (P2: L16, P3: L3) respectively.

We have also cited reference 33 to the British 1990 anthropometry reference equations. P10: L11


3) Please remove from the “Statistical analysis” repeated parts. Any concept should be explained just once. “Were computed using GLI2012 SRE using height, age, sex….” … “which provide an age, height, sex and ethnic-specific …”…. “taking subject age- and heoght-related variability into account” … These are confusing repetitions of the same concept. Also, in each of these sentences you list a different set of “adjustment” variables, which is not appropriate.

We thank the editor for the comment and we have corrected to read:

The z-score and LLN values were calculated using the available Microsoft-Excel Macro calculators, which provide an age, height, sex and ethnic-specific value.32 The GLI2012 z-score is an unbiased estimate showing the positioning of an observed spirometry value in the distribution of the GLI2012 SRE. P7: L19-22
4) Once again: all supplementary tables and figures must be either cited in the manuscript or deleted from the supplement. Tables 2S3, 3S3, 2S4, 1S4, 1S6 are not cited in the manuscript. Double check every single supplementary Table and Figure in your revised manuscript. We have removed the tables and figures (supplementary material) which were aimed at supporting the main tables without being cited in the manuscript. Supplementary 3, 4 and 6

5) Please double check all material in “Supplementary file 3”: some analyses do not seem statistically sound. School Income Level is a three-category variable but only 1 coefficient is reported. What is the difference between data reported in Table 1S3 and Table 3S3? Why ANOVA (Table S23) and linear regression: do you need both analyses to support your statements? (probably not since you forgot to cite these Tables). Table 1S3 does not report measurement units, nor the content of the table is explained (regression coefficients with p?). Also, in the manuscript text, what do you mean with “the linear associations ….. were not uniform”? (page 10) And it is ont true that all beta coefficients are between -0.2 and +0.2

We thank the editor for the comment and we have removed the ANOVA table to remain with linear regression analysis with School Income Level (three-category variable) in supplementary file 3.

We have also revised the statement indicated by the editor and it now reads:

The linear associations between spirometry variables, anthropometric indices and school income as indicated by β coefficients from linear regression were within ±0.5 (Table 1S3, Supplementary File 3).

P10: L13-15)