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Journal Name:	International Journal of TROPICAL DISEASE & Health
Manuscript Number:	2015_IJTDH_17926
Title of the Manuscript:	A Cross-Sectional Study on the Influence of Altitude and Urbanisation on Co-Infection of Malaria and Soil-Transmitted Helminths in Fako Division, South West Cameroon
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



SDI Review Form 1.6

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	This MS provides useful information for SW Cameroon regarding malaria, anaemia and STH in school age children. Before accepting for publication, some important points have to be clarified or improved. Kindly consider the comments below. Revise keywords; line 30: severe consequences of STH are other than "stomach ache, stomach upset", please improve (blood loss due to hkw, intestinal sub occlusion or obstruction due to <i>Ascaris</i>, <i>Trichuris</i> dysentery syndrome as examples); is there no schist some infections in this area of Cameroon? Line 52: how about assessment of impregnated bed net distribution also? Line 88: 1138 students included; however, 1800 randomly selected – 662 dropped - any comments on why? Exclusion? Refusal? Consent? Exclusion criteria? Line 100: written consent? Oral consent? I am not clear whether presence of fever was a sign for exclusion. Line 111: what kind of clinical assessment? Symptoms? Line 129: same haemoglobin level for children of different ages? Line 136: formula to calculate malaria parasite density? Line 149: how was the eggs per gram calculated? Line 150: all STH infections were treated; no mention of	Line 30: Symptoms of STHs has been improved on, Schistosomiasis has not been recorded in this study area. The snail intermediate host is absent in this area. Line 52: This study does not assess the distribution of impregnated bed nets because an earlier study by Kimbi et al., 2013 elaborates on the distribution and usage of bed nets in the study area (Kimbi, HK, Nkesa, SB, Ndamukong-Nyanga JL, Atashili, J, Sumbele, IUN and Atanga, M.B.S. (2014). Socio-demographic factors influencing the ownership and utilization of insecticide-treated bed nets among malaria vulnerable groups in the Buea Health District, Cameroon. <i>BMC Research Notes</i> 2014, 7:624). Line 88: 1800 forms were distributed, only 1150 signed consent forms were returned and 1138 succumbed to the blood collection procedure. The 662 pupils did not return signed consent forms indicating that their parents did not want them to participate in the study or did not succumb to the blood collection procedure. They were therefore excluded. Line 100: Written consent forms was given at least a week before the date set for data collection. The parents were to study the forms at home, read, ask questions through the head teacher and then sign if they wanted their children to participate in the study. The consent form explained the aims/objectives of the research, the procedure for data



SDI Review Form 1.6

	malaria treatment for the 433 malaria positive subjects?? Line 170: mean temperature? Line 179: what species of malaria parasites? Were fever and anaemia higher or lower in children with malaria parasites? any asymptomatic children with malaria parasites in smear? Do Figures add any new information than that stated in the Tables? Tables need to be put in the journal format, removing unnecessary lines. Also, Table titles could be improved, i.e.: Table 1. Baseline characteristics of the study population, Fako Division, South West Cameroon, 2014. Lines 333-340: not investigated; necessary comment? Is bed net distribution and use better accepted in rural areas? Could it be a factor rather than animal presence?. Line 345: <i>Anopheles</i> does not favour stagnant water for breeding. Was the presence of symptomatic children in school considered high or unexpected? Is malaria well tolerated in this student age group with mild symptoms? Line 365: improved hygienic conditions or the preventive chemotherapy program each 3-6 months? Any monitoring or evaluation in place? Maybe education or increase awareness? How does anaemia, malaria and STH infection compare among different altitudes? Different economic status? Was anaemia more prevalent in malaria – STH infection – low altitude populations? What is the role of malaria on anaemia in this region?	collection and the benefits of the study. Line 111: Clinical assessment had to do with the measurement of axillary body temperature (presence or absence of fever), and a history of fever in the preceeding two days to assess the clinical status of the child and not for exclusion purposes. Line 129: Cheesbrough (2010) classifies anaemia as follows; Newborn infants 140 g/l (14.0 g/dl) Child 6 months–4 years 110 g/l (11.0 g/dl) Child 5–11 years 115 g/l (11.5 g/dl) Child 12–14 years 120 g/l (12.0 g/dl) Non-pregnant women 120 g/l (12.0 g/dl) Pregnant women 110 g/l (11.0 g/dl) Men and adolescent boys 130 g/l (13.0 g/dl). The age groups in this study are highlighted in red and the classification was done following these values. The correction has been effected in manuscript. Line 136: This formular is explained in lines 134 to 137. After writing out how the calculation is done, putting the formular again is a repetition Line 149: For calculating the number of eggs per gram of faeces, the hole of the plastic template was designed to contain 41.7mg of formed faeces according to manufacturers instruction. The number of eggs in the 41.7g of faeces were counted and multiplied by the factor of 24 to give the number of eggs per gram (g) of faeces (Kato-Kartz, 1972). The correction has been effected in manuscript. Line 150: All positive malaria patients were treated using Artesunate/amodiaquin combined therapy in association with Vitamin B-complex. The correction has been effected in manuscript. Line 170: mean temperature?
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SDI Review Form 1.6

	What are the limitations in this study? Review reference citation to be according to journal specifications, use of capital letters, book citations.	ANS: The axillary temperature of each child was recorded before blood collection. Fever was defined as a temperature $\geq 37.5^{\circ}\text{C}$ (line 122). Summarising data into means and standard deviations does not affect the temperature. Line 179: 99% of malaria cases were caused by <i>P. falciparum</i> and the other species of <i>Plasmodium</i> constituted only about 1%. Pupils with fever, had a significantly higher ($\chi^2 = 3.02$, $P = 0.048$) prevalence of malaria parasites (42.2%) when compared with those without fever (36.6 %) as shown in Table 2. See lines 192 - 193 Statistically, there was no difference in malaria prevalence between those who anaemic and those who were non-anaemic. The information in figures is different from that in the tables. Tables have been redrawn to reduce irregularities and given even spacing. Table titles have been modified. Line 333-344, 345: Localities found at a high altitude in this study hardly had stagnant water around homes due to swift run-offs after rainfall. Also there are no streams or rivers in this high altitude areas, mosquito breeding grounds are reduced. The response for line 52 addresses the issue of bed nets. The prevalence of malaria in this study was 38.0%, a value lower than that reported by other researchers in previous years in Fako Division [13, 23, 24], However, this prevalence is higher than expected considering the control measures that have been put in place by MINSANTE Cameroon which include free malaria screening and treatment among the 0 - 5 years age group available in public and privately owned hospitals, clinics and health centres, the subsidization of the prices of anti-malarial drugs for other age groups as found in the pro-pharmacies in Cameroon, the free distribution of insecticide-treated bed nets (ITNs) as well as LLINs for households and massive sensitization on radio and television (31, 32). See lines 295-301. Statistically, there was no difference in malaria prevalence between those who were anaemic and those who were non-anaemic with respect to altitude and socio economic status
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SDI Review Form 1.6

		hence the authors did not want to cloud the significant findings.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments	Paper should be revised prior to be accepted.	