Dear editor

We wish to express our gratitude to Shahid et al for sending a letter in response to the article, “Demographic, Sociocultural, and Behavioral Predictors of Modern Contraceptive Uptake Among Couples in Northern Ghana”. It is with gratitude that we respond to the letter. However, we the authors do not agree with some of the issues raised.

Firstly, we indicated that we purposively chose the Northern Region with a 17% modern contraceptive prevalence rate (mCPR), which was the lowest in Ghana. We also stated that in the region, we purposively selected Tolon and Kumbungu because they were among the districts with the lowest uptake. However, the sub-districts (both urban and rural) and the communities were randomly selected. What we did not include in the publication was that in the communities, we identified the centres of the communities and spun a pen on the ground. We then recruited couples in the direction the pen pointed till we reached the edge of the community. At the edge of the community, if the number of couples was not up to the required number, the pen was re-spun and recruitment continued in the selected direction. This continued until the requisite number of couples of 12 or 13 couples was completed in a community. Therefore, we humbly refute the statement that bias was introduced into recruiting study participants.

Secondly, we respond to the statement that we should have included pregnant women. In the paper, we stated that we needed women who were “currently using modern contraception”. The intent of that question was that participants were using modern contraception to prevent pregnancy. Therefore, we could not have included pregnant women as participants.

Thirdly, while we agree with Shahid et al’s assertion that men over 59 years were also fertile, we made reference to aligning with the age limit of Ghana’s Demographic and Health survey age limit.

Shahid et al also suggest removing sexually inactive individuals. We also agree with Shahid et al that we did not explicitly ask participants whether they were sexually active. However, we need to re-iterate that the study used in-union couples; mostly husband and wife as the sampling unit and the assumption was that they were sexually active. Additionally, it was necessary to take cognisance of the prevailing cultural environment, and therefore, some questions could not be asked. Albeit, in the larger study, it was found that a marked percentage of the couples used abstinence to prevent pregnancy.

Shahid et al mention that we did not ask the women whether they were going through menopause. The Demographic and Health Surveys and the Ghana Health Service recognise that women in fertility age (WIFA) are found between 15 and 49 years. We therefore assumed that the women had not reached menopause. Hence, we complied with the WIFA and also complied with Ghana’s law that women are allowed to be sexually active from 16 years. We agree that we did not ask whether the female participants had “gynaecological conditions such as polycystic ovarian syndrome”.

We want to thank Shahid et al for the recommendation that the suggestions of the study should have been implemented. Nevertheless, as Shahid et al rightly stated that this study was a baseline of a larger study. The recommendations of this study
were therefore implemented in the larger study. We also concur with the authors of the letter that the current mediums of health education should have been collected. This recommendation was implemented but is out of the scope of this article.

We also take note Shahid et al’s suggestion that we should implement quality improvement. However, we are not sure what the authors are referring to as quality improvement. Are the authors referring to services rendered by health service providers or we should have put quality improvement measures in the larger study?

We finally end by expressing our appreciation to the authors of the letter, Shahid et al. We hope we have adequately addressed the concerns raised.

**Disclosure**
The authors report no conflicts of interest in this communication.

**References**
2. GSS, GHS, ICF. Ghana Maternal Health Survey 2017: Key Findings. Rockville, Maryland, USA; 2018.