Knowledge, Attitude and Practice of Antibiotics and their Determinants in Eritrea: Urban Population-based Survey

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Supplemental material

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Supplementary file 2: Brief description of the sampling technique and sample size, Eritrea, 2019

Sample size

Sample size was computed mainly for an estimation of proportion of safe practice taking 95% confidence level, 0.05 precision; using the formula [23]: $n \geq \frac{NV1.96^2}{V*1.96^2+(N-1)*0.05^2}$, where

$V = \frac{SD^2}{Pooled\ proportion^2} = 0.5$ and N=size of the target population. Upon consideration of the aforementioned parameters, the initial sample size was 1525. After an adjustment of non-response percent (10%) and design effect (deff=1.5), the final sample size was 2542 individuals.

Sampling Technique

Local data, conducted by Ateshim et al. 2019 [11] and other unpublished studies, implies that the awareness, knowledge, attitude, and practice towards antibiotics and ABR varies across the zones in Eritrea. Hence, it was presumed that the sample design that led to the selection of a legible person was a stratified three-stage cluster sample. During the first stage of the sampling, a total of 102 primary sampling units referred to as blocks (having households ranging from 200 to 1000) were selected from the 13 urban sites. During the second stage, 25 households were selected from each block taking into consideration the design effect, inter-cluster correlation, economic and administrative issues [24]. Finally, samples were selected from each household. To bring about reliable zonal and overall estimates, square root allocation of households was undertaken.