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Quality of Age Reporting from Tanzania 2012 Census Results: An Assessment Using Whipple's Index, Myer's Blended Index, and Age-Sex Accuracy Index

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Abstract : Background: Many socio-economic and demographic data are age-sex attributed. However, a variety of irregularities and misstatement are noted with respect to age-related data and less to sex data because of its biological differences between the genders. Noting the misstatement/misreporting of age data regardless of its significance importance in demographics and epidemiological studies, this study aims at assessing the quality of 2012 Tanzania Population and Housing Census Results. Methods: Data for the analysis are downloaded from Tanzania National Bureau of Statistics. Age heaping and digit preference were measured using summary indices viz., Whipple's index, Myers' blended index, and Age-Sex Accuracy index. Results: The recorded Whipple's index for both sexes was 154.43; male has the lowest index of about 152.65 while female has the highest index of about 156.07. For Myers' blended index, the preferences were at digits '0' and '5' while avoidance were at digits '1' and '3' for both sexes. Finally, Age-sex index stood at 59.8 where sex ratio score was 5.82 and age ratio scores were 20.89 and 21.4 for males and female respectively. Conclusion: The evaluation of the 2012 PHC data using the demographic techniques has qualified the data inaccurate as the results of systematic heaping and digit preferences/avoidances. Thus, innovative methods in data collection along with measuring and minimizing errors using statistical techniques should be used to ensure accuracy of age data.

Keywords : age heaping, digit preference/avoidance, summary indices, Whipple's index, Myer's index, age-sex accuracy index
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