

Review of: "Tobacco Smoking-Attributable Mortality in Kenya: 2012 –2021"

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Potential competing interests: No potential competing interests to declare.

This study aimed to assess the mortality attributed to tobacco smoking in Kenya from 2012 to 2021, recognizing its significant contribution to non-communicable disease mortality. Using a prevalence-based analysis model, the study estimated age-specific smoke attributable mortality rates for individuals aged 35 years and older, analyzing causes of death associated with tobacco use, including cancers, cardiovascular diseases, respiratory diseases, tuberculosis, and diabetes. Over the study period, 60,228 deaths were attributed to tobacco-related diseases, with respiratory diseases, diabetes mellitus, malignant cancers, tuberculosis, and cardiovascular diseases collectively accounting for 16.5% of deaths among individuals aged 35 and older. Smoking prevalence in Kenya was 17.4% among men and 0.9% among women, with significant mortality attributed to smoking, particularly in respiratory diseases, malignant cancers, and tuberculosis. The study underscores the urgent need for tobacco control measures and targeted interventions to mitigate the substantial impact of smoking on public health in Kenya.

The study is well designed and conducted and conveys important public health messages. However, some points might be beneficial to be considered to make the material more robust and clarify some vague aspects of the study. Please find my comments and queries below.

1. Abstract: The format of this section is somehow strange. All of the results could be merged into one section, and the main results on PAFs and attributable mortality to smoking could be more highlighted rather than the prevalence of smoking.
2. Methods: Authors may explain why their model only incorporates individuals aged 35 or older for analysis.
3. Methods: Authors need to clearly provide the list of causes of diseases they assumed to be connected to smoking, associated with relevant references, and also alongside the ICD-10 codes of the conditions.
4. Methods: Regarding the formula for PAF calculation, please precisely define the source of prevalence values used in the formula.
5. Methods: Please add a section on statistical analysis and mention the software used for analysis in this study and related issues. Also, adding the 95% confidence intervals to the point estimations provided in this study is highly suggested. The method used to provide the CI should also be added to this part of the statistical analysis in methods.
6. Discussion: This section needs major revisions. The findings should be extensively discussed and compared to similar literature. Also, the public implications of the findings need to be added to this section.

