Reviewer's report

Title: Prevalence, distribution and social determinants of tobacco use in 29 Sub-Saharan African Countries

Version: 1 Date: 22 August 2014

Reviewer: Gary A Giovino

Reviewer's report:

The authors use data from 2006-2013 Demographic Health Surveys to estimate the prevalence of smoking and smokeless tobacco use in 29 Sub-Saharan African countries. There are many errors that need correcting.

Minor Essential Revisions:

1. The report misrepresents the Global Adult Tobacco Survey. It suggests, for example, in a statement in the second paragraph on page 3, that GATS does not adequately report SLT use, supporting that statement with reference 19. Reference 19 combines smoking and smokeless into a measure of tobacco use. A paper in Lancet by Giovino and colleagues provides estimates on SLT use, as do other GATS papers and GATS country reports (on a CDC website). Also, the paper implies that GATS does not report data on countries in sub-Sahara Africa. This is true only for published papers. Data for Nigeria and Uganda are available on-line and representative surveys are being conducted in many SSA countries using GATS questions. While this level of detail does not need to be added, the implication that GATS does not report on smokeless tobacco and that GATS is not active in SSA needs correcting.

2. Page 3, para 1: it's "Framework Convention on Tobacco Control," not "Framework Control for Tobacco Control"

3. The text and tables often refer to the 40-49 year old age group as >= 40 years. This is potentially misleading and should be changed to always read 40-49 years old.

4. The categorization of religion is incorrect in spots. For example, Anglican is a Protestant religion and Animism is not Christian. Also, the Results section does not discuss the findings on religion.

5. Regarding Figures 1 and 2, the Figure titles should indicate that these are among people who use tobacco products. There is a problem because there is no indication that anyone uses more than one tobacco product, which many undoubtedly do. Thus, the figures likely misrepresent reality.

6. In Table 4, there is no indication of what variables were statistically controlled for.

7. Page 7, second sentence: The phrase "age was associated with age" doesn't
make sense.

7. Page 7, para 1: The results section discusses adjusted odds ratios as if they were relative risks (e.g., in terms of "times higher"). This may be acceptable for women, because the prevalence estimates are low. But it is not statistically accurate for men, because the prevalence estimates are higher. I am referring to the concept that odds ratios approximate the relative risk when prevalence is low.

Discretionary revisions:

8. Methods section of Abstract: It is not clear why there is "(64)" after "15-49" in line 2.

9. Results section of the Abstract: in discussing adjusted odds ratios for education and wealth, indicate the direction of the relationships.

10. Results section: I suggest that one decimal point is sufficient in reporting prevalence estimates in the text and tables.

11. Page 5, 3rd paragraph, first third sentence: I suggest inserting "most" so it reads, "In most East African countries, ".

12. Page 6, first two complete sentences: indicate that these data are shown in Figure 1 and also that the estimates are among people who used tobacco.

13. Page 6, para 2: In Gabon women also mainly smoked cigarettes.

14. Page 6, para 2, define "high" (i.e., provide the percentage cut-point used) for chewing tobacco and for snuff.

15. Table 3: I suggest an "Overall" line of data.

16. Page 6, third paragraph: Indicate in the first sentence that the data are from Table 3.

17. Pages 7 - 9: I think the Discussion section provides too much repetition of results and not enough interpretation.

18. Page 7, paragraph 2: the survey did not assess use of manufactured cigarettes - only cigarettes. I suggest dropping the word "manufactured"

19. Page 8, paragraph 1: GATS provides estimates for Nigeria and Uganda, on the website.

20. Page 8, para 3: It is not clear to this reviewer why the age differences observed would indicate a cohort effect.

21. Page 8, para 3, last sentence: perhaps the suppression of hunger is another reason why poor people use tobacco.

22. Page 9, top paragraph: while the religions mentioned do not promote tobacco use, I believe that Islam proscribes against use more strongly than the other
religions.

23. Page 9, para 3, last sentence: the FCTC is in force in Zimbabwe

24. Page 10, last sentence: add mention of promoting cessation.

25. General comment: the paper needs a copy edit.

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I do some work for GATS, but I don't see this as a conflict. I welcome data from other surveys, as I value comparing the results of differing methodologies.