Reviewer's report

Title: The relation between smokeless tobacco and cancer in Northern Europe and North America. A commentary on differences between the conclusions reached by two recent reviews.

Version: 2 Date: 11 March 2009

Reviewer: Brad Rodu

Reviewer's report:

This manuscript is a valuable contribution to the scientific literature regarding tobacco harm reduction. The authors conducted a systematic comparison of two recent meta-analyses relating to smokeless tobacco use and cancer. In a professional and straightforward manner, the paper provides a clear understanding of how two considerably different methodologies affected the results and conclusions of the reviews. This work will have substantial impact on the field of tobacco harm reduction, but in a broader context it is a case study of both the potential and the limitations of meta-analyses.

Discretionary Revisions that I ask the authors to consider:

Page ii, Abstract: “An alternative…” This is awkward. Consider rephrasing as “Smokeless tobacco is an alternative…”

Page ii, first paragraph, last sentence. Suggested rephrasing: We found no association with stomach, bladder and ALL CANCERS COMBINED, based on data as extensive as THAT for oesophageal, pancreatic and lung cancer.

Page 4, Paragraph 1. “…and show a statistically significant increase of 60-80% for ever smokeless tobacco use for oral, oesophageal and pancreatic cancer, but a non-significant 20% increase for lung cancer.” It seems like “and” would be a better fit than “but” in this sentence.

Page 13, Paragraph 1. “We believe that our review offer a more robust meta-analysis…” The verb should be “offers”

Page 13, Paragraph 1. “The differences in procedures had most effect…” Awkward. “…had the largest effect…”

Page 14, First Full Paragraph. “…and in our review we estimate that attributable deaths from smoking-related cancers would be almost 100 times lower, if one assumes that all the smokers had risk equivalent to that of ST users.” This sentence is convoluted and hard to understand. It might be a little clearer if it was revised to “…would be almost 100 times lower if smokers instead had the risk of ST users.”

Page 14, Paragraph 2. “This is important given that some public health advocates see a potential role for ST in tobacco harm reduction..” I think the
language in this passage is far too conservative, specifically the word “advocates,” which suggests that this is just an idea or a cause. I ask the authors to consider replacing “advocates” with “authorities” and adding two or three of the following references:


**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

My research is supported by unrestricted grants from smokeless tobacco manufacturers to the University of Louisville (US Smokeless Tobacco Company and Swedish Match AB). The terms of the grants assure that the sponsors are unaware of my work, and thus have no scientific input or other influence with respect to its design, analysis, interpretation or publication. I do not have any financial or other personal relationship with regard to the sponsors.