Reviewer's report

**Title:** Impact of a long-term tobacco-free policy at a comprehensive cancer center: a series of cross-sectional surveys

**Version:** 2  **Date:** 22 September 2014

**Reviewer:** Ana Navas-Acien

**Reviewer's report:**

This is an interesting study evaluating changes in smoking prevalence and tobacco-related behaviors and attitudes in the context of a long-term hospital-based tobacco control interventions and to smoking legislations, one banning smoking in public places and the second banning smoking in all public places including hospitality venues and outdoor spaces in hospitals.

The main comments and suggestions are included below:

1. A table showing participants characteristics (age, sex, job status, and other relevant information) by survey year is needed to compare the changes over time. They are mentioned in the text but I think it would be better to have a table.

2. It is unclear why the distribution of type of job status changed over time since the survey was conducted as a representative sample of the hospital employees in each year. Was there a major change in the organization and type of workers in the hospital?

3. Something that requires a little bit more thought is the high prevalence of “never smokers” in the 2012 survey. The prevalence of never smokers changed from 41.6% to 49.7%. In a stable population, the expectation is that the smoke-free legislation would decrease current smoking prevalence by increasing former smoking prevalence. Do you have any possible explanation for those changes? Could it be related to the change in the population distribution (see comment above)? To changes in the questionnaire? Something interesting is that the percentage of smokers <10 cig/day is actually a bit lower than before, this would suggest that the light smokers have quit and heavier smokers are the ones who remained, except that the prevalence of former smoking has decreased instead of increased. Could it be that light smokers are interpreting the questions differently now and are classifying themselves as never smokers?

4. It is unclear if the survey of all oncology workers was done in the context of the main employee survey or through a specific survey. Are those workers included in the main survey? How many are they in each year?

5. The lack of impact in smoking prevalence among the group <35 years is a concern and should be highlighted in the discussion together with some potential strategies that could be used.
6. Page 8, paragraph 2: sentence “with adjusted PRs of 0.20 (95%CI: 0.05-0.87) and 0.78 (95%CI: 0.42-1.46), respectively (Table 1).” should indicate “… and 0.78 (95%CI: 0.42-1.46), respectively, compared to baseline.

7. When mentioning the outdoor spaces that are covered by the 2nd law it is unclear if it refers to all public places or only hospitals.

8. The decrease in the perception of tobacco smoking as a health concern over time is actually a concern. One would have expected that hospitality workers are now more informed and aware about the risks. It seems that some additional interventions are needed to increase concern regarding smoking and secondhand smoke exposure. Are there surveys of general populations in Spain to compare to? Is it similar? Better, worse?

9. In the discussion, minimize the repletion of the results that are already in the tables and text.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare i have no competing interests