Reviewer's report

Title: Awareness of vaccination status and its predictors among working people in Switzerland

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Reviewer: PA Bovier

Level of interest: A paper of limited interest

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

a) Discretionary revisions

This is an interesting paper on awareness of vaccination status and its predictors among active adults in an industrial country. The lack of appropriate vaccination coverage in adults is a real problem in developed countries, and Switzerland is no exception. However, I am not convinced by the arguments in the introduction that the lack of awareness of the vaccination status alone is as important as stated by the authors, with respect to other problems such as limited perception by health care providers and the general public that adult vaccine-preventable diseases are important health problems, doubts in the doctors and patients minds about the efficacy and safety of vaccines used for adults, larger size of some adult target population, lack of statutory requirement for adults immunization, etc.

The authors also argue that the lack of awareness may be a problem for the health care providers, because when no medical records or vaccination cards are available, they must rely on individual recall, and therefore it is important to know if they can trust the patients. In my personal experience, this problem is really important for children that have a complex vaccination schedule; while for adults this can be dealt with without too many difficulties in most cases. The main problem is to get the patient to seek the advice of health professional regarding their vaccination status, and to increase their awareness that vaccinations are important, regardless of their vaccination status.

Regarding this research paper, what would have been interesting in this population was to study to what extent the lack of awareness would have impaired the work of health professionals, and resulted in unnecessary doses of vaccines, sides-effects, and costs (false positive or excess vaccination) or additional cases of vaccine-preventable disease (false negative or lack of immunisation).

b) Compulsory revisions

If the authors choose to follow the same track, I would strongly suggest some change in the way they
should present their results and conduct their analyses.

1. Some details are needed regarding the selection of people included in the survey. The total number seems to represent only 41% of all employees; this difference should be explained and the risk of selection bias discussed.

2. A table with the respondents' characteristics and awareness of vaccination status across respondents characteristics would be helpful and help to understand the type of associations (e.g. crude OR, linear trend) between awareness of vaccination status and scales (e.g. well-being, stress, etc*). For these aspects, the current Tables 2 and 3 are totally useless and not informative.

3. Regarding the logistic regression analyses, there are several points that need to be improved:
   a) For continuous predictors, such as age, defining groups is preferable, and make the interpretation of the OR easier than when age is used a continuous predictor
   b) The reference group can be identified as an OR of 1.0, and preferably the reference group is chosen in order to describe risk factors for higher awareness.
   c) The reference group should represent a large group, at least 10% of the sample; otherwise the power to detect significant difference relative to this group decreases. Regarding the marital status, the reference group represents only a hundred people.
   d) When continuous scale (e.g. well-being) are used, it may be more appropriate to use each level of response as a category, rather than use the scale as a continuous predictor, unless you have demonstrated that the relationship between the risk factor and the outcome is linear. In many cases, it is not the case (U shape, up and down, etc*)

4. I would change Table 1 into Figure 1 and refers to all the Tables in the results section and not in the discussion only.

**Competing interests:**

None declared.