Reviewer’s report

Title: Disease profiles of detainees in the Canton of Vaud in Switzerland: Gender and age differences in substance abuse, mental health and chronic health conditions

Version: 3
Date: 16 December 2014

Reviewer: Lamiece Hassan

Reviewer’s report:

The revised version of this paper is much improved. In particular the implications, and therefore the value of the paper, are much clearer. The authors have satisfied most of my initial queries and concerns. However, there are a few statistical issues that require attention before the paper is suitable for publication.

Minor Essential Revisions

1. It is usual, unless otherwise stated, for p values to be set at 0.05. However, in the following examples p values that exceed 0.05 are reported as statistically significant associations. If these are not typos and are non-significant, then they should be removed from the lists.

   - Older adults, paragraph 1: "Notably, compared to 26 prisoners under 50, older adults were significantly less likely to misuse ...pharmaceuticals (p=0.09)"

   - Older adults, paragraph 4: "The association between being an older adult and suffering from a health condition was statistically significant for ...digestive problems (p=0.06)"

2. Please also double check that the following ORs are statistically significant as the 95% values for the OR span 1 (this usually, though not always, indicates NS result):

   - (Chronic diseases related to origin in the study sample): "...those from the Middle East had a higher burden of ...but less frequently endocrine disorders (OR 0.41 95%CI 0.16-1.04)."

   - " Prisoners from Eastern Europe showed a higher prevalence of tuberculosis (OR 8.09 95%CI 0.98-66.34) than those from Western Europe."

Discretionary Revisions

The authors have helpfully added in counts to other areas of the results section, however they have not revised Table 2. Adding in counts (Ns) would enable readers to check percentage calculations or see if there are missing data. This may be an editorial decision, depending on the conventions of the journal.

Level of interest: An article whose findings are important to those with closely
related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests.