Reviewer's report

Title: Syndromic surveillance for influenza. A comparison with notification data before and during a pandemic

Version: 1 Date: 3 March 2011

Reviewer: Antonio Valdivia

Reviewer's report:

Major compulsory revisions:
- It should be necessary to indicate why the correlations are calculated with Pearson's R instead of Sperarman's Rho. There could be some concerns about non-Gaussian distribution of the data, or non-linear relation between terms, that could affect the performance of Pearson's R. Pearson’s could be a valid test, but should be adequately justified.

- Minor essential revisions:
The number of each table does not match the reference number in the text. It seems that the number in the title of each table needs is equal to the reference number+5. The correct number is that indicated in the "Results" part of the text.

- Discretionary revisions:
The dataset could provide a richer information with a multivariate analysis. I think it should be interesting a regression analysis of the time series of the weekly registers, possibly with a Poisson's or binomial negative regression. This could be useful to calculate a better estimate of the adjusted correlation for each time lag, and to provide an estimate of the effects of the pandemic on the codification habits of the ED physicians.

The objectives are clearly defined, and according to a descriptive design. The discussion is adequately supported by the data, and addresses the most relevant limitations of the study and this surveillance method. The results provide an answer for the most descriptive objectives, but the conclusions seem to be too centered on the influence of what ED staff believes to be occurring in the community. This could be an opportunity to outline the effects of the pandemic on the coding habits of the ED staff.

The pandemic and the media coverage about it has changed the worldwide coding habits during 2009. In Spain, I have noted an increase in the minimum hospital dataset of ICD-9 codes for influenza, and in the ICD-10 codes for overall (community and hospital) mortality data, and I think that the main reason was (as the authors indicated for Australia) what the physicians believed to be occurring in the community.

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