Reviewer's report

Title: Automated, sustainable, broad-based, near real-time public health surveillance using presentations to hospital Emergency Departments in New South Wales, Australia

Version: 1 Date: 2 June 2005

Reviewer: Ross Lazarus

Reviewer's report:

General

This well written paper describes a pragmatic and cost-efficient approach to ED encounter based public health surveillance. The topic is of considerable interest to public health practitioners. The methods describe some interesting and novel modifications of existing ideas, and a relatively simple system to implement which may prove to be widely applicable, particularly since the authors provide plenty of detail and have made much of the analysis source code freely available.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

None identified

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

None identified

Discretionary Revisions (which the author can choose to ignore)

1. The paper appears to focus exclusively on temporal aggregation and the issue of spatial aggregation is not discussed. It is not clear whether each ED is regarded as a distinct geographic unit or whether all regions are amalgamated. In my experience, finer scale geographic localization is a practical challenge (eg does the post or zip code of residence serve as a reasonable proxy of the spatial component of the real event?) and may well be a very "noisy" covariate - however, it may be useful when there are relatively fine scale geographic events? Although this is probably another paper, the authors might point out that their system is purely temporal in contrast to some other more complex approaches.

2. Although already present in the MS, I wonder if the authors might want to give even more emphasis to the simplicity, low infrastructure and opportunity costs, and low impact of the system on data providers, since in my experience, these are not widely understood as issues in the design and implementation of large scale, sustainable surveillance systems.
What next?: Accept without revision

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests