Reviewer's report

**Title:** Monitoring Entry into Care of Newly Diagnosed HIV-Infected Persons: San Francisco 2006-2007

**Version:** 1  **Date:** 5 June 2008

**Reviewer:** Tim Hallett

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This paper is concerned with the importance of early entry to care for HIV-infected patients, for individual and public health benefits. The authors present the result of a year-long observational study, in which the timing of entry to care for newly diagnosed patients is associated with their characteristics, in particular where they were diagnosed and whether they were contacted by public health workers afterwards. I feel that this topic is important and the findings would be of interest to many readers. However, my understanding and appreciation of the work was unfortunately limited by somewhat inadequate descriptions of the context, study design and analysis method.

To those working in the San Francisco Public Health Department, the set-up will be very familiar, but to those in other settings, further explanations may be required. A diagram showing the flow of patients from diagnosis, to ‘case contact’, to presentation at a clinic, with CD4 testing etc would be useful. This would enable the authors to clearly illustrate what they are most concerned with (i.e. not timing from infection to diagnosis, or continued follow-up after initial appointment) and where unfamiliar things (case contact, various sorts of information on timing of visits) fit in. Throughout the manuscript, there was a tendency to use ‘jargon’ type words without explanation that added to this difficulty in reading this manuscript (especially Introduction and Methods). For instance – what is the ‘HIV/AIDS surveillance registry’, what does ‘legal’ mean in this context, write ‘CD4 cell count and viral load DATA’.

I also felt there was a tension in the manuscript between interpreting these results to assess what kind of things promote individuals connecting to care sooner rather than later and issues about surveillance. The former is an important public health question, which the authors can address: e.g. people tested at particular facilities and with contact to health workers come sooner. That should be mentioned prominently in the ‘conclusions’ section, and more of the discussion devoted to outlining possible reasons for those relationships. But, at the same time, the authors make another point about CD4 data at first entry to care as being used in surveillance. I don’t really understand why monitoring the distribution of CD4 count at the stage is useful since it’s confounded by the timing of HIV diagnosis as well as the general physiology which varies between population sub-groups, and is anyway a very noisy signal at the best of times.

The assumption regarding all patients that are diagnosed and enter care in the
The Introduction was overly brief, and didn’t, in my opinion, fully explore the benefits of linking diagnosis to care. First, the prevention of infection is important and several modelling studies have indicated that (e.g. Blower et al, Nature, 1990s, Baggaley et al, Emerging Themes in Epidemiology, 2006). Then, the clinical benefits of early entry to care have received close attention from a benefit and cost-benefit perspective (e.g. Badri et al, PLoS Med & Lancet, 2006; Hallett et al, PLoS Med 2008). Timing in entry to care in the Netherlands has recently been analysed (Smit et al, PLoS One, 2008), showing that ‘too late’ diagnosis is the limiting factor for clinical outcomes there. The epidemic in MSM in San Francisco have been studied in many articles, in particular the resurgence in the HAART era (e.g. Truong, STI, 2006)… and in London (Stolte, AIDSA 2003/4).

The choice of the z and t-test requires some justification, since a non-parametric or survival-based approach would seem a more natural choice.

“Linkage to care” should be replaced with “Linkage to care after diagnosis” throughout the manuscript for clarity.

First sentence of the introduction after first comma does not make sense. Break into two sentences and quantify how MANY years after infection you mean.

Second paragraph of introduction does not flow naturally from first paragraph. Consider re-orderings or adding a linking sentence?

Results: It’s no surprise that ‘sex’ was not statistically significant with only 9 women. This should be stated – or alternatively, the analysis restricted to men only. For the ‘not significant at p>0.05 level’, I presume you did some form of backward model selection on Wald tests / Likelihood ratio tests? This should be stated explicitly.

Table 1: It might be clearer if you arrange that the quoted percentages refer to the rows (i.e. comparison of confirmed/not). The column-wise distribution is of less interest and is already listed in the text. Also options for some factors are not shown: what was the sexual orientation(s) of the 26% of the sample that were not MSM? And what was the distribution of timing to entry to care, if not within 3mo (even though shown in Figure)?

All numbers should be written in numerals, not words. Currently, this is inconsistent throughout the manuscript.

In the discussion, you state that patients from the hospital were more likely to access care than those seen at the STD clinics, DESPITE having lower CD4 cell counts. That seems expected, since patients with clinic symptoms are more likely
to recognise the urgency of seeking care.

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests.