Author's response to reviews

Title: Cost and efficiency of public sector sexually transmitted infection clinics in Andhra Pradesh, India

Authors:

Lalit Dandona (dandona@asci.org.in)
Pratap Sisodia (pratapsisodia@asci.org.in)
T.l.n. Prasad (drellen2002@yahoo.com)
Elliot Marseille (emarseille@comcast.net)
M. Chalapathi Rao (mcrao@asci.org.in)
A. Anod Kumar (anod@asci.org.in)
S.G. Prem Kumar (prem@asci.org.in)
Y.k. Ramesh (ramesh@asci.org.in)
Mead Over (meadover@worldbank.org)
M. Someshwar (somesh@asci.org.in)
James G. Kahn (jgkahn@itsa.ucsf.edu)

Version: 2 Date: 29 August 2005

Author's response to reviews: see over
29 August 2005

Editors
BMC Health Services Research

MS 4276605196681967 revision

Dear Editors,

Thank you for inviting us to revise our manuscript. We appreciate the helpful comments by the reviewers, and have addressed them as follows in the revised manuscript:

Comments by Søren Holm

1. Approval by Ethics Committees is now mentioned on page 4 (first para). Informed consent is mentioned on page 5 (second para, third sentence).

2. The possible total increase in STIs detected from 18807 to 25916 is based on optimal numbers only for all clinics (Table 5). This calculation already assumes a lower optimal number for the clinics that are detecting more than the optimal number of STIs (Table 5). Reference to quality issues in clinics detecting more than the optimal number of STIs is emphasised in the discussion on page 15 (first para, last line).

3. We agree that the map should not be included to ensure anonymity of the clinics, and have done so in the revision.

Comment by MJ Postma

We agree that the basis for the regression model, and the expected high R-square value for this model, should be introduced in the methods section to justify the use of this model. We have done so in the revision on page 9 (first para).

Comments by Reijo Sund

1. We now offer a clearer explanation for the regression model in the methods section on page 9 (first para). As explained, the objective of our regression model is limited to estimate the incremental costs for initial and follow-up visits, for which we believe the model is appropriate. In econometric analysis, the total cost function is estimated first, from which the average cost function can be estimated later if needed (Klein, 1977; Baumol & Blinder, 1994; Samuelson & Nordhaus, 2003). We have estimated the total cost function, which suffices for the objective of our regression model to estimate incremental costs for initial and follow-up visits. We do not see any advantage of adding the average cost function, as suggested by the reviewer. We have used the fixed costs (relatively fixed and not absolutely fixed) as a variable in the right side of the equation as the constant alone may not estimate
the entire fixed costs (Klein, 1977). Therefore, it is not necessary to fix the fixed cost variable to one in this total cost function regression model.


2. We believe that one year is too short a period to assess the changes in demand or supply of services in this clinic. Therefore, we prefer not to introduce these issues for the single fiscal year data that we have presented in this paper.

3. Monthly summary data were obtained rather than client-level data from each medical record. To clarify this we have introduced the phrase “monthly summary” in the Output data section (page 8): “Detailed data were obtained from the written monthly summary records of the STI clinics regarding the services provided every month”, followed by description of the data collected. The exclusion justification for one clinic seems to us to be better suited at the end of the methods section, just before the results section.

4. The second para of methods section (page 4) mentions the evolution of the STI clinics: first established at tertiary hospitals of medical colleges in the state capital and the district headquarters, followed by district headquarter hospitals and area hospitals at relatively smaller locations. However, to make clear the reason for the trends in number of STI cases in the three categories of clinics in the first para of the results (now page 11), a sentence has been added: “This trend was largely due to the differences in the relative sizes of the catchment populations for these three categories.”

5. The term “non-linear” is now added both in the abstract and results section (page 12, third para) for the relation between STIs treated per doctor FTE and the cost-efficiency of each STI treated. However, we prefer that the word “direct” also be retained to distinguish that this is not an inverse relation. The power function for this relation is shown as it gave the best fit for the data (better than exponential or other functions) – now mentioned on page 12 (third para). We have checked the power function shown in the Figure (now Figure 1) and find it to be correct (excel sheet showing the values and graph attached). As suggested by the reviewer, we now also present the best fit graph after excluding the outlier (Figure 2).

6. It is clearly mentioned in the footnotes for Tables 3 & 5 that “STI clinics arranged within each hospital type category in decreasing order of cost-efficiency, i.e. increasing order of cost per STI treated.” This we believe enables easier
understanding of the efficiency. Table 1 shows the clinics in the order in which the data were collected. It should not make any difference if the orders in Tables 3 & 5 are different from that in Table 1 as long as each clinic is identified with a unique identifying code (which is already done).

7. We feel that showing mean and median number is a standard method and that it is useful in this case to present overall mean and median values. The distribution of STIs detected for the three categories of catchment populations (medical colleges, district headquarters hospitals, area hospitals) are already shown in Table 1.

8. We reassessed the use of the term “inadequate demand” and felt that it best conveyed the intended message. We use the same “inadequate” term for supplies and staff later in this para (now page 13, third para), and think that it should be retained for the sake of consistency.

We look forward to a rapid editorial decision on our manuscript.

Kind regards,
Lalit Dandona

Lalit Dandona, MD, MPH
Professor
Chairperson, Health Studies Area
Director, Centre for Human Development
Administrative Staff College of India
Raj Bhavan Road, Hyderabad - 500 082, India
Email: dandona@asci.org.in, lalit.dandona@rediffmail.com
Tel: (+91 40) 2337 6958, 2331 0952
Fax: (+91 40) 2331 2954