

**SHORT COMMUNICATION****Fast-track writing of a scientific paper with 30 authors:
how to do it**S. Satyanarayana,¹ A. M. V. Kumar,¹ B. N. Sharath,² A. D. Harries^{3,4}<http://dx.doi.org/10.5588/pha.12.0084>

This paper describes the process of writing a scientific paper for a multi-centric study on 'screening tuberculosis patients for diabetes mellitus in India', with four facilitators and 25 class participants, who were all co-authors of the paper. By Day 3, a complete paper was sent to international authors for review and comment. Key factors in the success of this venture were: standardised facility-level data collection, a 'zero' draft prepared before the module, a first draft ready at the end of Day 1 and a plenary session on Day 2, with participants providing critical input for the second draft.

As the four facilitators of the course, we have just sent the second version of a paper on screening tuberculosis (TB) patients for diabetes mellitus (DM) in India to our international co-authors. We started this paper as a writing exercise with 25 local co-authors, and the process has taken 3 days. The paper is the culmination of 12 months of work involving: 1) a national stakeholders meeting in October 2011, whose aim was to agree on how to screen, monitor and record screening of TB patients for DM in routine health care services; 2) two training modules in December 2011 and January 2012, to develop monitoring tools and train implementers in their use; 3) screening activities from the first quarter of 2012 to 30 September 2012; and 4) a writing module in October 2012, the purpose of which was to collate and analyse data and write a paper for submission to a peer-reviewed journal.

Our philosophy was to be inclusive in authorship, and we invited everyone involved in the stakeholders' meeting, in the training modules, in implementing the project and in the writing module, to be co-authors of the paper. During the writing module, coordinated by the four facilitators, we had 25 participants who had all been involved from the start of the project. They all qualified as co-authors on the manuscript according to the International Committee of Medical Journal Editors (http://www.icmje.org/ethical_1author.html). So the question is: how did we get the paper written in 3 days? We describe the steps that enabled this to occur.

METHODS AND RESULTS***Use of standardised monitoring and reporting tools to ensure uniform data***

For the pilot project, the seven hospitals and eight TB units, covering over 60 peripheral health institutions,

had standardised tools for collecting and reporting on patient data (Tuberculosis-Diabetes Registers and quarterly cohort report forms). This enabled every site to collect the same quarterly data, and collation of data from all the facilities was therefore straightforward. Early on in the project, officers from the Revised National Tuberculosis Control Programme and the South-East Asia Office of the International Union Against Tuberculosis and Lung Disease supervised the facilities to correct any errors in data collection.

Participants at the writing module came with their patient data

All participants attended the writing module with their patient data, and thus any queries about data could be resolved in class.

Participants presented their data in Powerpoint format

On Day 1, from 9 am to 3 pm, all participants presented their collated data, the challenges they faced during implementation and potential solutions. Data were recorded by the facilitators and were used to write the paper.

Writing a zero draft for the paper

Before the module started, the four facilitators wrote a 'zero' draft of the paper. This consisted of a largely completed Introduction and Methods section (based on the protocol developed 12 months previously), a blank Results section and a brief Discussion covering some of the issues likely to arise. Pertinent references had already been downloaded and were added under References.

On Day 1, from 3 pm to 5 pm, an agreement was reached on which journal should be selected for submission and on how the tables should be prepared and formatted. Facilitators ensured that data from each site for the three quarters and the whole period of the study were collated into aggregate data, which in turn were entered in the tables. A Box summarising challenges encountered during implementation was also prepared. In the evening, the Tables and the Box, along with the Figures, were sent to one of the facilitators charged with writing the first draft.

Writing the first draft

In the evening of Day 1, a first draft was prepared. This was a full paper with a title page, key words, a short

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title, an abstract, an introduction, methods, results, discussion, conclusion, acknowledgements, references (in the style required by the journal) and the Box, Tables and Figures. This was shared between facilitators during the night, and by the morning of Day 2 the first draft was sent to participants and was ready to present in plenary.

Presentation and critique of the paper

On Day 2, from 9 am to 12 am, all co-authors convened in plenary with the first draft on their laptops and the Word document format of the paper displayed on a large screen via an LCD projector. One facilitator chaired the session, one managed the computer, one noted comments, and the fourth revised the first draft in class on his laptop, saving it as the second draft. The chair read each main section of the paper (for example, abstract or introduction) aloud, and the whole group went through the paper in detail, paragraph by paragraph, with participants suggesting better use of language, adding comments, correcting errors, checking data, etc. Tables, Boxes and Figures were scrutinised in detail, checking titles, row and column headings, data and the legends explaining abbreviations and percentages. The whole exercise took 3 hours.

Next steps

Not all of the authors could be present at the writing module, and the next steps with timelines were discussed and agreed upon in class. This included the completion of the second draft by the facilitators; sending the draft to the international authors with time-bound responses and writing the third draft; sending this draft to the national senior authors and writing the fourth draft after incorporating their input; circulating the fourth (and final) draft to all authors for approval; and submission to the journal. The journal required a signed author contribution and acknowledgement statements, which were prepared in class.

Cet article décrit le processus d'élaboration d'un article scientifique concernant une étude multicentrique sur le dépistage du diabète sucré chez les patients atteints de tuberculose en Inde, grâce à quatre facilitateurs et 25 participants à une classe dont tous étaient co-auteurs de l'article. Au jour 3, un article complet a été envoyé à des auteurs internationaux pour révision et commentaires. Les facteurs

En el presente artículo se describe el proceso de redacción de un artículo científico sobre un estudio multicéntrico de detección sistemática de la diabetes en los pacientes con tuberculosis en la India, en el cual participaron cuatro facilitadores y 25 colaboradores que fueron todos coautores de la publicación. La redacción se completó en un lapso de tres días y se envió a varios coautores internacionales a fin de que la evaluaran y aportaran comentarios. Los factores esenciales en el éxito

TABLE Factors facilitating the completion of the second draft in 3 days

- Four facilitators with experience in the writing of scientific papers
- Standardised monitoring and reporting tools used at each study site for which all health care workers had been trained
- Supervision of all facilities early in the project to correct errors in data collection
- Participants bringing their completed monitoring tools and data to the module so that data queries could be resolved in class
- A 'zero' draft of the paper prepared before the module, including downloaded references
- Presentations from all sites on their data, challenges and solutions
- Using these data to write the first draft, which was circulated to all participants and displayed on a screen using an LCD projector
- Plenary presentation of the paper section by section in class
- Clear roles and responsibilities of the facilitators during the plenary presentation, including one facilitator revising the paper on his laptop
- A second draft revised and refined by all facilitators, and circulated to the remaining authors

The second draft was completed by Day 3 and sent to the international co-authors.

DISCUSSION

This was the first time that any of us had written a paper together in class with such a large number of co-authors under such a tight time frame. A number of factors that facilitated the success of this initiative are summarised in the Table. Two important elements were having enough facilitators who understood the principles of writing an article, and coming to the module with a prepared 'zero' draft. The journey over 3 days was enjoyable, and we hope that this information will be helpful to others embarking on a similar venture.

clé du succès de ce projet ont été une collecte standardisée des données au niveau des services, une ébauche « zéro » préparée avant le module, une première ébauche terminée à la fin du jour 1 et une réunion plénière au jour 2 pour les participants qui permettait de fournir un apport critique à l'élaboration de la deuxième ébauche.

del proyecto fueron la recogida normalizada de los datos en cada centro, la preparación de una versión 'cero' antes de llevar a cabo el módulo de redacción, la terminación de una primera versión al final del primer día y una sesión plenaria el segundo día, en la cual los participantes aportaron contribuciones críticas encaminadas a perfeccionar la segunda versión.