Reviewer's report

Title: Essential trauma management for internally displaced people of eastern Burma: Scaling up the workforce and diversifying health workers' skills to address service delivery needs of communities in active conflict zones.

Version: 1 Date: 8 May 2008

Reviewer: Suzanne Lippert

Reviewer's report:

Training local medics to administer essential trauma care while providing them with the skills to train more medics and thereby create a self-sustaining system of medical workers is an incredibly important aspect of providing medical care in resource-poor settings. The authors describe the initiation, content, and structure of a self-sustaining medical training program designed in response to traumatic injuries incurred in the setting of the prolonged public health emergency of Burma’s border regions. This article’s description of the structure of the Trauma Management Program (TMP) developed through the BPHWT and KDHW is invaluable to the people of Burma and to the international community seeking to develop similar responses in areas of conflict.

The article provides a descriptive case-study, outlining the structure of medical teams, the training program, and the means by which patient data is collected. We suggest altering the structure of the paper to highlight its descriptive strengths. The current topic headings mislead the reader to approach the article as primarily a scientifically based presentation of conclusive data; however, many of the conclusions drawn are not securely founded in evidence.

The article attempts to achieve two main goals, describing the TMP and presenting data garnered from the work of the trauma medics. Because the paper is descriptive in nature and no comparison data is presented, comments and conclusions to suggest impact of care need to be avoided. It may be beneficial to consider dividing the two aspects of this paper into separate articles in order to more clearly present the concrete data in one and more fully describe the experiences of the educators, trainees and communities in the other. A comprehensive description of the trauma management program, outlining the strengths, and the obstacles and complications in implementation, would provide a valuable model for instituting similar programs in other resource poor settings. The article could then be positioned alongside Husum’s work with the Trauma Care Foundation, adding a new perspective on that work and presenting innovations and variations to the TCF’s pre-hospital trauma care model.


Despite the importance of the topic and the major accomplishments of the Trauma Management Program described in this article, the article itself does not
meet its stated objectives in its current version and will require significant editing of the content and syntax.

Major compulsory revisions

1. Limit the paper to descriptive analysis and a comprehensive delineation of the TMP design and implementation.

2. Augment the descriptive strengths of the paper by more fully outlining the organization of the TMP; detailing the structure of the medical teams, the 6 month training schedule, means of advancement to the next level of training, quality or performance measures, content of courses, role of advanced students in training novices and structure of the Village Health Worker trainings.

3. Avoid comments or conclusions to suggest impact of care since no comparison data is presented.

4. Although this may be self-evident, several comments about morale and community building are made without supporting evidence or data. A recent article in Rural and Remote Health offers an approach to grounding the impression of improved morale in concrete data. [Wisborg T, Murad MK, Edvardsen O, Brinchmann BS. Life or death. The social impact of paramedics and first responders in landmine-infested villages in northern Iraq. 2008. Rural and Remote Health. 8:816.]

5. The Abstract should be re-written: the methods section should refer to data collection methods, the results section must have data to support the currently stated causal relationship between medic care and “high survival rates” and “community empowerment”, the conclusions section must not report “increased survival rates” without supporting data.

6. Use the background section to set the stage for the intervention that the TMP introduces by focusing on a more succinct outline of recent statistics on the health impacts of landmines in Burma and the current health care void.

7. The initial two paragraphs of the Methods section complete the background for the actual implementation of the TMP and should be located in the background section.

8. Arrange the methods section into three subsections:
   a. Training: structure (advancement, evaluation, monitoring of quality of care provided), schedule - Is the same course offered every 6months? Is there a series that is ultimately completed over 1-2 years?, content, self-sufficiency (requirements for training trainers and Village Health Workers, structure of those trainings)
   b. Medical management: In addition to cataloguing the tools and supplies, provide a description of the typical composition of a trauma team. Is there always a senior member with trainees in practice? Are trainees first required to work in the clinics before working with the backpack medics? Are trainees evaluated once in practice, and how are they evaluated?
   c. Data collection: What is the definition for “stable” at the time the medic left the patient? Why are trauma patients that are dead on arrival of the medic not
recorded, as this is important basic mortality data?

9. Results section: Divide into results of the training program and results of the medical management provided by the medics. In regards to training, address numbers of graduates (total and yearly), demographics of graduates, areas of practice, self-sustaining capacity of the program. In regards to medical management address numbers treated, mechanisms of injury, medic procedures/treatments rendered, morbidity and mortality outcomes, time to care, survival time. Again, avoid commenting on impact of care as the lack of comparison data precludes it and it is not necessary to make this paper intriguing and publishable.

Minor essential revisions

Pg1 Abstract/Results: “these health workers ARE able to respond to patients”
Pg1 Background p1: change to “The 2006 Landmine Monitor report identifies Burma as one of the few countries experiencing an increase in the number of landmine casualty rates in 2006.”
Pg1 Background p1: Where are the reported statistics coming from if there are no official statistics? The estimated 10,605 survivors total are referring to what time period?
Pg1 Background p1: “4% of all deaths were attributable to landmines.” Delete crude mortality rate…
Pg1 Background p2: “reason for these high [?injury?mortality] rates is multi-fold”
Pg2 Background p1: Consortium stated that mines ARE often placed"
Pg2 Background p2: Delete “child victims are more likely to die…” as there is no medical basis for this statement.
Background section syntax is often in the passive voice, dominated by complex sentences and unclear.
Pg3 Methods p1: Delete “In total”
Pg3 Methods p1: “…return to the Thai border every six months…”
Pg3 Methods p3: “a four day course for health workers” Any minimal requirements to enter the course? Where have the health workers been previously trained?
Pg3 Methods p3: “A training of Trainers program is EMBEDDED in the current course.”
Pg 4 Results p4: “Health workers response times…” Please clarify that you mean trauma team vs Village health worker.

Discretionary revisions

• Consider adding a table that lists the time frame of the training courses, the content of each sequential course, the requirements for advancement/certification, the requirements/obligations to act as an instructor.
• Consider adding a box diagram of the current mobile clinic and backpack health worker system that serves as the foundation for the TMP; including numbers of clinics and health workers within each clinic, numbers and composition of medic teams, and numbers of civilians served by each component.
• Consider adding a map that illustrates the areas covered by the trauma trained medics.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

We, Suzanne Lippert and Eric Snoey, declare that we have no competing interests.