Reviewer's report

Title: Public health research output from India is very inadequate

Version: 1 Date: 1 November 2004

Reviewer: carla patterson

Reviewer's report:

General
General. This is an excellent paper which really adds to a comprehensive understanding of health research output in India in relation to both the burden of disease and the quality of the research output. It has been undertaken very thoroughly and most importantly does clearly point out the limits of each of the datasets/measures used i.e. using PUBMed as the main source of journals, data on the burden of disease as well as impact factors of the journals. The limits described for each of these may affect the exact ‘numbers’ ascribed to the calculations but are unlikely to affect the findings of the paper, namely the general lack of public health research output and how often research patterns do not reflect the burden of disease. Even more interesting is the fact that when some of the major categories do appear to align, that the subcategories do not correspond.

The Australia/India comparison is interesting to really highlight the huge differences but it would be equally interesting for some comparisons to be made with research output from countries with a similar health status to India in a future analysis.

Another interesting question for the future is where the funding for the research being undertaken is coming from and how much of this funding is investigator driven as compared to being strategically directed.

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

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

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Discretionary Revisions (which the author can choose to ignore)

1. Perhaps the title could be amended to
   The lack of public health research output in India

2. P8 para 2
   Six papers on public health interventions are specifically mentioned. From the categories of public health research listed, it is not clear where these are located. Would it be useful to have a category called 'interventions'. These are somewhat comparable to 'clinical trials' in the clinical section. The evidence provided by interventions is really where public health action to make a difference begins. If you decide this would be useful, it might also be useful to consider another category in both the clinical and public health sections titled 'dissemination and sustainability. Such categories enable follow-up from research on clinical trials and interventions to see if they have been implemented if successful, and how they have been made sustainable. even in a country like Australia which has
been used for comparison, we find very little reported on what happens when successful interventions are picked up and disseminated.

3. One might expect that always basic sciences and perhaps a considerable amount of the clinical categories can be readily accepted into the international literature. For example, methods on determining serum levels of ‘x’ are applicable in most contexts, whereas an intervention to improve eg the nutritional status of ‘x’ in children may be considerably more dependent on local conditions. This means the researchers probably have to not only report their intervention findings but be able to extrapolate to a wider setting. I am not indicating this should not be done but perhaps offering an explanation as to why so little is reported on intervention research. I am currently trying to find the results of a number of interventions which I know have been undertaken in one of the Indian states and keep on being told, no one else would be interested so they were not published. This means the results now reside in a report somewhere that no one can put their hands on.

4. In the sections on public health 'demand' and 'supply' in the discussion, there are a number of assertions ie with regard to saying that health academics regard public health with less respect than clinical research. I am not disputing that this is the case, but perhaps again offering some further explanation - is this perhaps a product of how public health is taught from a very medical model. Are there non medical public health programs available especially at an undergraduate level. On the 'supply' side there are additional assertions made, which again may certainly be true. Perhaps all of this material needs to be framed slightly differently unless there are data to support the claims ie by saying 'this may be the result of lack of hands on practical experiences etc.' The real danger otherwise, is that these assertions will be picked up as fact, as well as the really useful data that has been generated by the researchers and then measures taken to address the real findings based on some of these assertive claims.

5. p11, para 2 - the authors refer to an earlier study in India using a different methodology - is it possible to draw any comparisons with this earlier study even if they are somewhat guarded especially on whether these ratios/percentages of different types of research output have remained relatively stable or there are some trends evident.

6. The data in Table 5 are interesting in regard to where the health research output is occurring. In follow up studies it would be interesting to analyse a bit deeper to see whether there are a number of organisations undertaking the same type of research. Could this be organised more smartly in the future by looking at data such as has being produced in this paper It would also be particularly interesting to see how much of the research in the public health area is about 'rural' communities which comprise perhaps 70% of the population of India and additionally if this research is done in close collaboration with local researchers.

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
None