Reviewer's report

Title: Systematic review of general burden of disease studies using Disability-Adjusted Life Years

Version: 1 Date: 27 April 2012

Reviewer: Martin Tobias

Reviewer's report:

I recommend this article be published subject to minor discretionary changes only, as listed below.

The article uses standard methodology for systematic literature reviews, including a very thorough search of the grey literature.

Minor discretionary changes for the authors and editor to consider:

Abstract

Study period was 1990-2010, not 2011

Introduction

No changes

Methods

YLD is defined incorrectly as "years lived with disability" (para 2). The correct definition is healthy year equivalents lost to disability.

"e" is defined incorrectly as "residual expected life span" (para 2). In English, life span and life expectancy have different meanings. The correct definition is residual life expectancy.

Para 3 gives the formula for incidence based YLD, but 20% of studies used prevalence based YLD. Provide the corresponding formula for prevalence-based YLD here as well.

Results

No changes

Discussion and conclusion

First sentence under heading "Conclusion" claims that "Accurate quantification of the population burden is important for resource allocation..". At the very least, a reference should be cited to support this claim.

In fact, burden of disease studies per se are arguably NOT useful for priority setting (which requires incremental cost effectiveness ratio estimates, not total burden estimates or projections). It would be helpful for the reader if the authors...
could expand the Discussion slightly to expound on those policy applications for which burden estimates and projections ARE in fact useful. In this regard, it may be worth briefly noting which of the 27 studies included projections as well as estimates of DALYs (and to what horizon).

A paragraph would be useful as to how burden of disease studies have actually been used to date to assist policy work, or - more generally - how such information could be used to guide policy. Putting burden of disease information into context alongside other decision support tools would also be helpful to the reader, in terms of judging what degree of accuracy and precision is actually required of such studies.

Final paragraph - change "Furthermore, overcoming this methodological rigour" to "..overcoming this limitation in methodological rigor" or words to that effect.

References
These are complete and correct, as far as this reviewer knows.

Tables and figures
These are correctly labelled, well set out and clear.

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

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare I have no conflict of interest.