#### Item 20: RESULTS OF INDIVIDUAL STUDIES.

#### For all outcomes considered (benefits and harms), present, for each study: (a) simple summary data for each intervention group and (b) effect estimates and confidence intervals, ideally with a forest plot

#### Explanation.

Publication of summary data from individual studies allows the analyses to be reproduced and other analyses and graphical displays to be investigated. Others may wish to assess the impact of excluding particular studies or consider subgroup analyses not reported by the review authors. Displaying the results of each treatment group in included studies also enables inspection of individual study features. For example, if only odds ratios are provided, readers cannot assess the variation in event rates across the studies, making the odds ratio impossible to interpret . Additionally, because data extraction errors in meta-analyses are common and can be large, the presentation of the results from individual studies makes it easier to identify errors. For continuous outcomes, readers may wish to examine the consistency of standard deviations across studies, for example, to be reassured that standard deviation and standard error have not been confused.

For each study, the summary data for each intervention group are generally given for binary outcomes as frequencies with and without the event (or as proportions such as 12/45). It is not sufficient to report event rates per intervention group as percentages. The required summary data for continuous outcomes are the mean, standard deviation, and sample size for each group. In reviews that examine time-to-event data, the authors should report the log hazard ratio and its standard error (or confidence interval) for each included study. Sometimes, essential data are missing from the reports of the included studies and cannot be calculated from other data but may need to be imputed by the reviewers. For example, the standard deviation may be imputed using the typical standard deviations in the other trials (see Item 14). Whenever relevant, authors should indicate which results were not reported directly and had to be estimated from other information (see Item 13). In addition, the inclusion of unpublished data should be noted.

For all included studies it is important to present the estimated effect with a confidence interval. This information may be incorporated in a table showing study characteristics or may be shown in a forest plot. The key elements of the forest plot are the effect estimates and confidence intervals for each study shown graphically, but it is preferable also to include, for each study, the numerical group-specific summary data, the effect size and confidence interval, and the percentage weight (see second example [[Figure 3](http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000100#pmed-1000100-g003)]). For discussion of the results of meta-analysis, see Item 21.

In principle, all the above information should be provided for every outcome considered in the review, including both benefits and harms. When there are too many outcomes for full information to be included, results for the most important outcomes should be included in the main report with other information provided as a Web appendix. The choice of the information to present should be justified in light of what was originally stated in the protocol. Authors should explicitly mention if the planned main outcomes cannot be presented due to lack of information. There is some evidence that information on harms is only rarely reported in systematic reviews, even when it is available in the original studies. Selective omission of harms results biases a systematic review and decreases its ability to contribute to informed decision making.