## A METHOD FOR ESTIMATING THE AGREEMENT IN PRIMARY STUDY SELECTION BETWEEN SYSTEMATIC REVIEWS

J.M. Bland<sup>†</sup>, M. Rodgers, D. Fayter, A. Sowden, R.J.P. Lewin

University of York, York, UK

<sup>†</sup>E-mail: *mb55@york.ac.uk* 

Systematic reviews of the same question sometimes come to different conclusions. This may be because the reviews use different analytical techniques, or they may take data from different primary studies. This paper is concerned with the latter possibility. A method is presented to estimate the agreement in primary study selection between different systematic reviews reporting similar objectives. There are two problems in doing this: we only know that a study is eligible for review because one of the reviews has selected it, and earlier reviews have fewer primary studies available for selection than do later studies. We propose the estimation of the probability that a study selected by one review will be selected by another review chosen at random. This method is based on one developed to look at observer agreement in signal detection, where the problem was that when no observer detected a signal we did not know whether there was any signal to be detected (Markus et al., 1996). Here we adapt this to deal with not all observers (systematic reviews) being able to observe all primary studies. We demonstrate how to calculate an estimate with a standard error and a confidence interval. We illustrate the method using systematic reviews of complex interventions in heart disease.

## Reference

Markus H, Bland JM, Rose G, Sitzer M, Siebler M. (1996) How good is intercenter agreement in the identification of embolic signals in carotid artery disease? *Stroke* **27**: 1249-1252.