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Topic: The political economy of public health nutrition

Title: The association of industry sponsorship with outcomes of nutrition studies: A systematic review and meta-analysis of reviews

Presentation Type: Poster

Background: It is important to know whether sponsorship should be part of the evaluation of bias in nutrition studies that are included in systematic reviews and dietary guidelines. If biased evidence is included in national dietary guidelines, public health may suffer.

Objectives: The objective of this review was to determine if the presence of food industry sponsorship or author conflicts of interest (COI) with the food industry is associated with effect sizes, statistical significance of results and/ or conclusions that are favorable to the sponsor or differ in their risk of bias.

Methods: We conducted a systematic review and meta-analysis of reviews based on Cochrane methods using Review Manager that investigated samples of primary research studies or reviews that quantitatively compared food industry sponsored studies with those that had no or other sources of sponsorship, or study authors that had a COI with the food industry with those that had none.

Results: Twelve reviews met the criteria for inclusion. Most reviews (n=8) assessed the association of industry sponsorship with authors' conclusions. Our meta-analysis of these 8 reviews found that industry sponsored studies were significantly more likely to have favorable conclusions than non-industry sponsored studies, RR: 1.31 (95% CI: 0.99 to 1.72).

Conclusions: Our findings suggest that industry sponsorship and author COI are associated with conclusions that favour industry sponsors, but there has been little analysis of the influence of sponsorship or author COI on the statistical significance or effect size of research results or risks of bias.