

Practice of rapid evidence synthesis among systematic review authors in Ministry of Health, Malaysia

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Abstract

Background

Rapid evidence synthesis is gaining popularity due to the demand of stakeholders and users for top-priority questions on health care. Rapid evidence synthesis using the Cochrane methods, which represents the most rigorous methods in systematic review, is a challenge. Malaysia is one of the largest producers and consumers of palm oil related products. In response to on-going publicity on the negative health effects of palm oil, the Malaysian Ministry of Health commissioned the National Institute of Health (NIH) to conduct a series of rapid evidence synthesis to evaluate the benefits and harms of palm oil and related products in seven major health related areas.

Objective

This report describes our efforts in performing a series of rapid evidence synthesis projects using the Cochrane systematic reviews methods in a cross-institutional collaboration under the NIH, among systematic review authors in Ministry of Health, Malaysia

Methods

A group of researchers came together to prepare a report on palm oil in Ministry of Health Malaysia. Leveraging on the expertise in primary research and systematic review, a program was developed to provide trainings in systematic review using Cochrane method to answer the question by policy maker on the effect of palm oil on health. These trainings were aim to further improve the quality and efficiency of conducting systematic reviews. The researchers were divided into six groups according to area of interest in the effect of palm oil namely obesity, cardiovascular and stroke, hypercholesterolemia, arthrosclerosis, cancer and diabetes.

A Cochrane trainer was assigned to conduct training for all groups. Weekly meetings, with rigorous hands on training were conducted among the researchers from August 2016 to December 2016. Each group was assigned with a team leader that was familiar with preparing a Cochrane systematic review. The team leader was responsible for steering his or her own group to be familiar with Cochrane

systematic review preparation. Strict time lines for each stage of the review process were adhered to, using the Cochrane methods as a reference.

Result

A total of eight systematic reviews were prepared from the training. A total of 34 authors from three institutions under the umbrella of NIH were involved in preparing these reviews. Evidence was synthesised combining both narrative review and systematic quantitative methods.

Following were time line achieved by all groups for each step of the review: research question formation: three weeks - devising search strategies - two weeks, performing search and selection - one week, data extraction and risk of bias assessment – six weeks, data entry and meta-analysis if applicable - four weeks, interpretation and report - four weeks. A total of 20 weeks were taken to complete the evidence synthesis.

Conclusion

These trainings and practice of rigorous preparation of systematic review using Cochrane method is a very useful tool in providing and synthesising reliable evidence for support of decision policy making. With the appropriate human resources, rapid evidence synthesis is feasible. The exercise also provided a platform for capacity building and transfer of knowledge and increase awareness for the usefulness of evidence based practices.