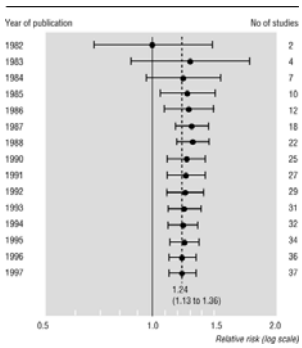
05. Introduction to systematic reviews and meta-analyses

Friday, 12 November 2010, 9:00 - 17:00, Salon Columbus (19)

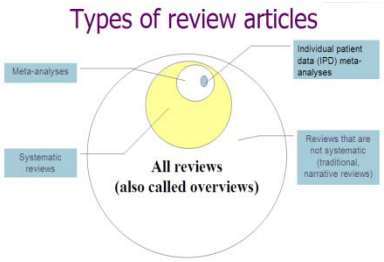
Description



Systematic reviews and meta-analyses are critical for evidence-based clinical and public health practice. They are a central component of policy and guideline development, especially with the widespread adoption of the GRADE system by WHO and other agencies. The widespread application of systematic reviews to synthesise evidence on key questions makes it useful for health professionals to be able to understand and critique this design. This one-day course will provide an introductory overview of systematic reviews and meta-analyses, with specific examples from TB and HIV.

Relation to Conference theme

Evidence-based TB and HIV care is central to improved control of the TB and HIV epidemics. Several agencies, including WHO and ATS, have endorsed the GRADE approach to guideline and policy development. The GRADE approach requires the use of systematic reviews and meta-analyses. This course provides an introduction to systematic reviews, their strengths and limitations.



Target audience

TB and HIV researchers, policy-makers, guideline development committee members, clinicians, nurses and librarians.

Objectives

1) To provide an introductory overview of the systematic review process, discuss the strengths and limitations of the method, and provide limited guidance on how to actually perform a systematic review; 2) To describe key components of a systematic review: formulation of the review question, searching of literature, quality assessment of studies, data extraction, and meta-analytic methods, methods to evaluate heterogeneity and publication bias and software options.

Keywords

Systematic reviews; meta-analysis; GRADE; evidence-based medicine; evidence-based public health

Coordinators	***Chairs***
Madhukar Pai (Canada)	Dick Menzies (Canada)
e-mail: madhukar.pai@mcgill.ca	e-mail: dick.menzies@mcgill.ca
Karen Steingart (USA)	Andrew Ramsay (Switzerland)
e-mail: karenst@uw.edu	e-mail: RamsayA@who.int

TENTATIVE SCHEDULE

Time	Topic	Speaker
9.00 AM	Welcome and introductions	Coordinators
9.10 - 9.45	Importance of evidence synthesis in TB and HIV control	Andy Ramsay
9.45 - 10.30	Systematic reviews: a step-by-step overview	Madhukar Pai
10.30 - 11.00	Tea break	
11.00 - 11.30	Searching for and identifying relevant studies	Madhukar Pai
11.30 - 12.00	Data extraction and quality assessment	Karen Steingart
12.00 - 1.00	Lunch	
1.00 - 1.40	Meta-analysis methods	Madhukar Pai

1.40 - 2.20	Meta-analysis of randomised controlled trials	Dick Menzies
2.20 - 3.00	Meta-analysis of diagnostic studies	Karen Steingart
3.00 - 3.30	Tea break	
3.15 - 4.00	Use of systematic reviews and the GRADE approach in policy and guideline development	Karin Weyer
4.00 - 4.50	How to write a review and get it published	Susan Jones
4.50 - 5.00	Course evaluations and closure	Coordinators

Course faculty

Dr Madhukar Pai, MD, PhD
Assistant Professor, McGill University
Co-Chair, Stop TB Partnership's New Diagnostics Working Group
Dept of Epidemiology & Biostatistics
1020 Pine Ave West
Montreal, QC H3A 1A2, Canada
Email: madhukar.pai@mcgill.ca

Dr Karen R Steingart MD, MPH
Physician Consultant
Curry International Tuberculosis Center
University of California, San Francisco
3180 18th Street, Suite 101
San Francisco, CA 94110-2028, USA
Email: karenst@uw.edu

Dr Andrew Ramsay, MSc, PhD, FIBMS
Head of TB Diagnostics Research
UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR),
World Health Organization,
20, Avenue Appia,
CH-1211, Geneva 27, Switzerland
E-mail: ramsaya@who.int

Dr Dick Menzies, MD, MSc, FRCPC
Director, Respiratory Division, MUHC and McGill University,
Montreal Chest Institute
3650 St. Urbain St.
Montreal, Canada H2X 2P4
Email: Dick.Menzies@McGill.ca

Dr Karin Weyer, PhD
Coordinator, TB Laboratory Strengthening
Stop TB Department
World Health Organization
20, Avenue Appia
CH-1211 Geneva 27 Switzerland
E-mail: weyerk@who.int

Dr Susan Jones, PhD
Senior Editor, *PLoS Medicine*
Public Library of Science
7 Portugal Place
Cambridge CB5 8AF, UK
Email: sjones@plos.org