

# Objectives

- Systematic reviews & Cochrane Collaboration - Background and basics
- Cochrane reviews and review protocols
- WHO Reproductive Health Library

# What constitutes a systematic review?

- Clearly formulated question
  - what type of intervention
  - what type of people
  - what type of outcomes
  - what type of studies

# What constitutes a systematic review?

- Methods to identify studies (searching)
  - Clear, explicit strategy
  - Comprehensive
  - Reproducible

# What constitutes a systematic review?

- Selecting studies
  - *A priori* description
  - who will do the selection

# What constitutes a systematic review?

- How will you decide to include or exclude a study from the review (critical appraisal)?
  - *A priori* description
  - Duplicate assessments
  - Quality assessment
  - Missing data

# What constitutes a systematic review?

## SUMMARY

- Clearly formulated question
- Methods to identify studies (searching)
- Selecting studies
- Critical appraisal

# What is a systematic review?

- A *review* of a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant research, and to collect and analyse data from the studies that are included in the review. Statistical methods (*meta-analysis*) may or may not be used to analyse and summarise the results of the included studies.

# What is a meta-analysis?

- The use of statistical techniques in a *systematic review* to integrate the results of the included studies. Also used to refer to systematic reviews that use meta-analysis.

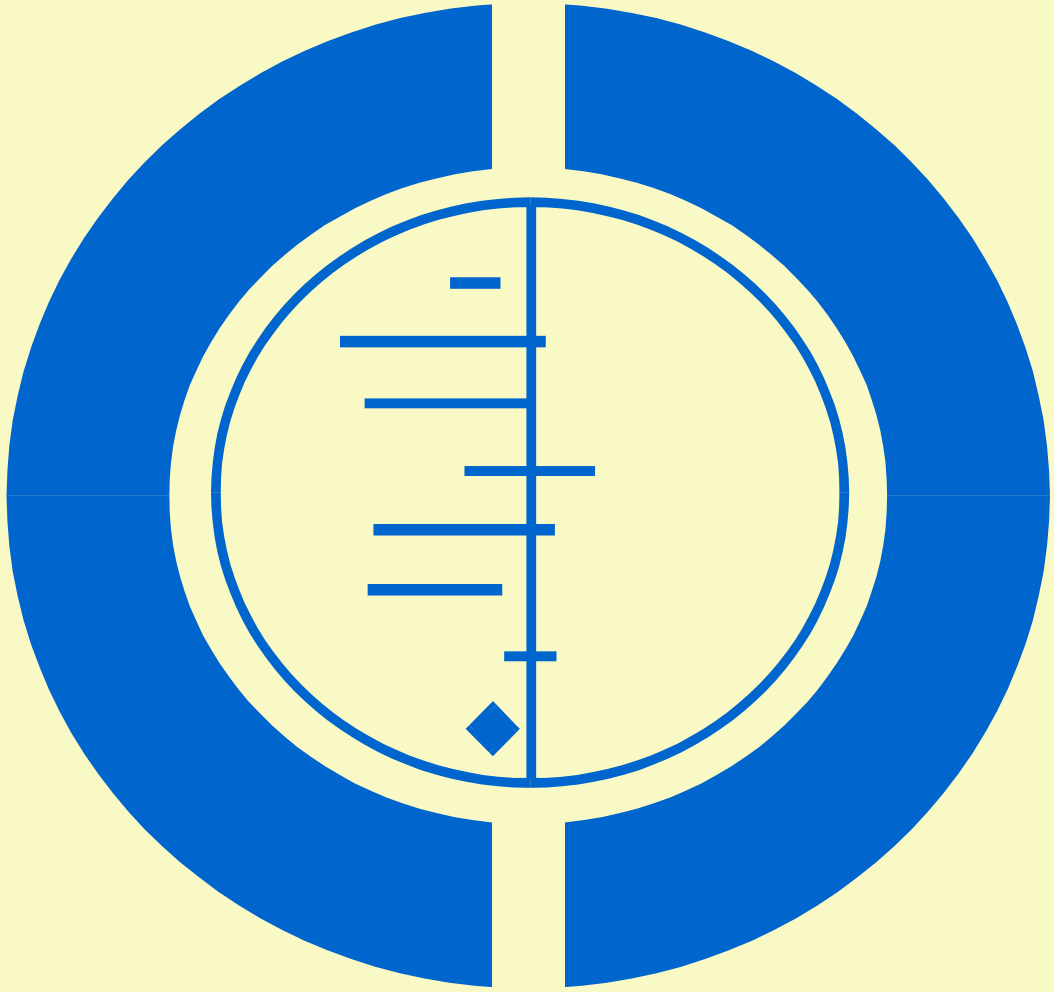


# What is a Cochrane review?

- A Cochrane Review is a systematic, up-to-date summary of reliable evidence of the benefits and risks of healthcare. Cochrane Reviews are intended to help people make practical decisions. For a review to be called a "Cochrane Review" it must be in the *Database* maintained by the *Cochrane Collaboration*.

# What is the Cochrane Collaboration?

- An international organisation that aims to help people make well informed decisions about health by preparing, maintaining and ensuring the accessibility of systematic reviews of the benefits and risks of healthcare interventions.



# Chronology

- 1972** *Effectiveness & Efficiency: Random reflections on Health Services by Archie Cochrane*
- 1978** Start of work on assembling a register of controlled trials in perinatal medicine
- 1979** Archie Cochrane criticises the medical profession for "not organizing a critical summary of all RCTs"
- 1985** Publication of a classified bibliography of 3500 reports of controlled trials in perinatal medicine between 1940 and 1984

# Chronology - continued

- 1985-1990** International collaboration to prepare systematic reviews of controlled trials in pregnancy, childbirth and the neonatal period
- 1989** First output of the collaborative work: 'Effective Care in Pregnancy & Childbirth' and 'Oxford Database of Perinatal Trials'
- 1992** The 'Cochrane Centre' opens in Oxford
- 1993** The Cochrane Pregnancy & Childbirth Database
- Oct. 1993** Formal launch of the Cochrane Collaboration in Oxford, England

# Cochrane Collaboration Principles

- Collaboration...
- Building on the enthusiasm of individuals...
- Avoiding duplication...
- Minimising bias...
- Keeping up to date...
- Striving for relevance...
- Promoting access...
- Ensuring quality...

# Cochrane Collaboration Entities

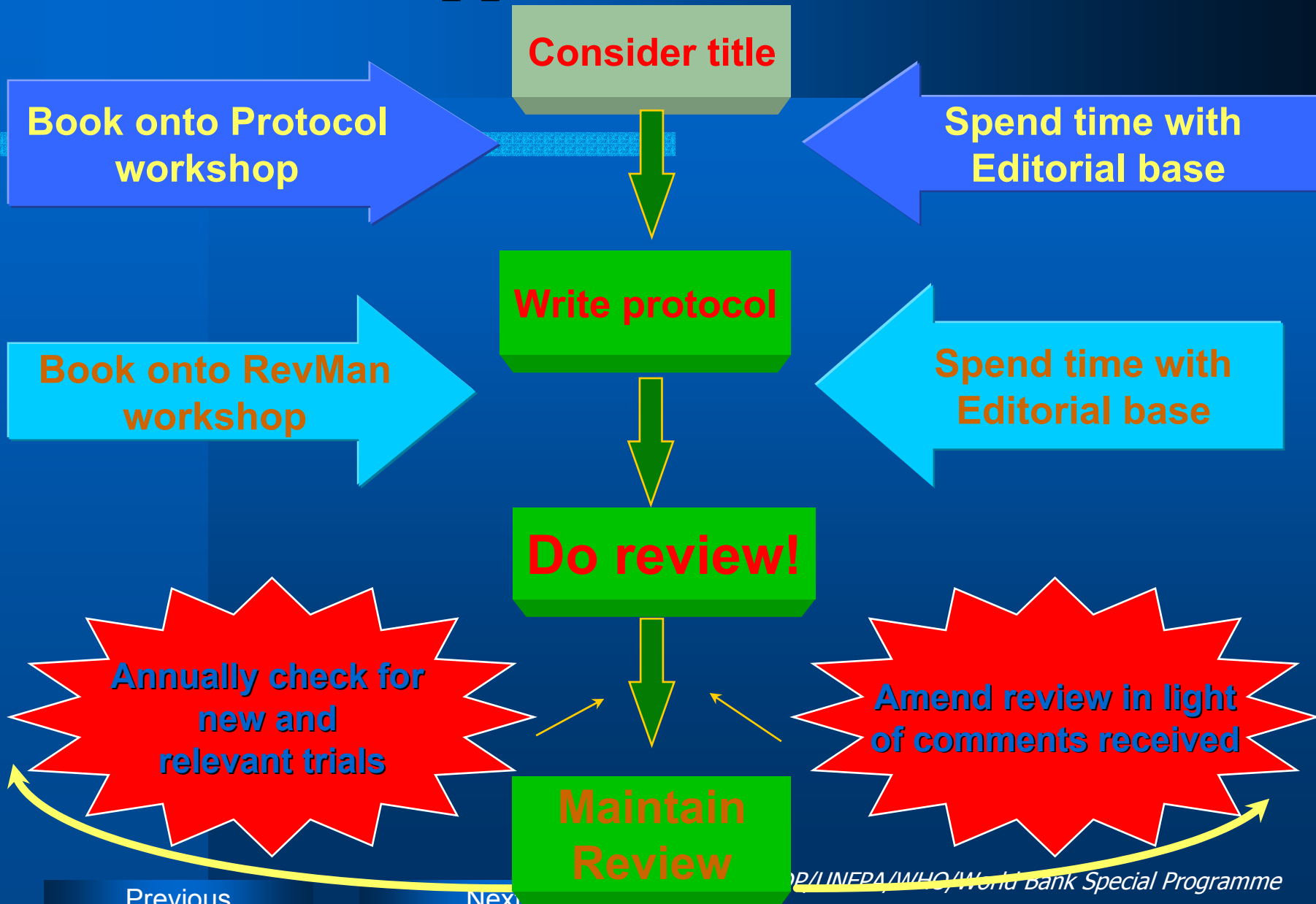
- Entities are formed to facilitate the preparation of the Cochrane reviews
  - Training in methodology, software use
  - Locating, identifying RCTs by handsearching
  - Identifying individuals who can help
  - Find sources of financial and logistical support
  - Promote Cochrane Collaboration

# Cochrane Collaboration Entities

- **Collaborative Review Groups (49)**
  - **Pregnancy & Childbirth, Infections, Fertility Regulation, Neonatal**
- **Cochrane Methods Working Groups (14)**
  - **Statistical methods, observational data, software development**
- **Cochrane Fields (10)**
  - **Child Health, Vaccines, Health Promotion**
- **Cochrane Centres (15)**
  - **UK, South Africa, Brazil, China(?)**
- **Cochrane Networks (1)**
  - **Consumer**



# What happens to reviewers?



# What happens to a review?

**Title**

**Discussed & clarified by Editor & reviewer**

**Submitted to Coordinator to be recorded**

**Protocol**

**Passed by editorial, lay and/or peer review**

**Published in the Cochrane Library**

**Review**

**Disseminated globally via the Cochrane Library and RHL**

**Amended & updated in light of comments received, commentaries for RHL**

**Maintained Review**

# Review protocol

- To establish the methods of the review beforehand
- To make the process as rigorous as possible
- To obtain feedback and criticism for the review before it is finalised

# Sections of a protocol

- Cover sheet
- Background
- Objectives
- Selection criteria
- Search strategy
- Methods

# Sections of a Cochrane review

- **Cover sheet**
- **Background**
- **Objectives**
- **Selection criteria**
- **Search strategy**
- **Methods**
- Description of studies
- Methodological quality of included studies
- Results
- Discussion
- Conclusions
  - Implications for practice
  - Implications for research
- Acknowledgements
- Conflict of interest

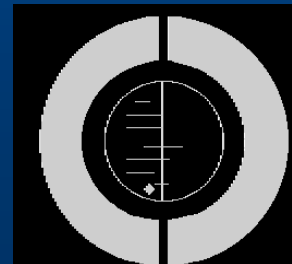
# Formulating the question

## Clear, well-defined and focused questions give more definitive results

- Participants
  - sex, age groups, community vs hospital
- Interventions
  - Treatment vs nothing? Placebo?
  - Treatment vs another treatment
- Outcomes
  - Substantive outcomes vs surrogate outcomes
  - Outcomes important for decision-making
  - Outcomes important for users (consumers)



# The WHO Reproductive Health Library



# Objectives

To provide health workers in developing countries, an affordable, efficiently distributed, user friendly source of up-to-date information on effectiveness of reproductive health care interventions



# RHL characteristics

- ▶ WHO project co-ordinated by developing country scientists
- ▶ Cochrane Library layout
- ▶ Issue 1 in 1 diskette
- ▶ Free subscription
- ▶ One issue per year
- ▶ Includes Cochrane reviews and other material
- ▶ Updates and adds new material in successive issues

# Advantages (over CLIB)

- ▶ Has larger (15000) dissemination targeting developing countries
- ▶ Topics relevant to developing countries
- ▶ Commentaries and practical recommendations
- ▶ Additional review system
- ▶ Funding agencies and NGOs
- ▶ *Spanish in 99*
- ▶ *Evaluation*

# RHL Dissemination

- ▶ 1997 Issue 1 - 15,000 copies
- ▶ Multifaceted approach
- ▶ Mailing lists of WHO Newsletters (*Progress, Safe Motherhood, Liaison*)
- ▶ Congress presentations and dissemination
- ▶ WHO regional workshops
- ▶ Current multicentre project meetings and workshops

# Topics covered in issue 1

- ▶ Trichomoniasis treatment in women
- ▶ Malaria prophylaxis
- ▶ Eclampsia management
- ▶ Corticosteroids in preterm labour
- ▶ Management of 3rd stage of labour
- ▶ Breastfeeding

# New topics in issue 2

- ▶ Mother-to-child HIV transmission
- ▶ Misoprostol for labour induction
- ▶ Iron and folate supplementation
- ▶ Episiotomy policies
- ▶ PAP smear collection devices
- ▶ Meconium aspiration

# Making use of RHL

- ▶ Policy
- ▶ Individual practices
- ▶ Primary research projects
- ▶ Establish contacts, networking