



Systematic Reviews in MNCHN Policies and Programs Workshop

Workshop Report

14th – 15th April 2009

Clarion Collection Hotel

New Delhi

Submitted by:

MCH-STAR Initiative Prime Partners

Emerging Markets Group, Ltd.

Boston University

The Centre for Development and Population
Activities (CEDPA)





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Workshop on Systematic Reviews in MNCHN Policies and Programs

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I. BACKGROUND

The MCH-STAR Initiative has been organizing a series of workshops to build the capacity of public health professionals on various research methodologies and facilitate its meaningful application to improve the status of Maternal, Neonatal and Child Health and Nutrition (MNCHN) in India. It is indubitable that an understanding of systematic reviews is of extraordinary importance for all professionals involved in the delivery of healthcare. In order to impart the skills required to conduct and appraise systematic reviews, a two-day work shop titled “Systematic Reviews in MNCHN Policies and Programs” was held on 14-15 April, 2009 at Clarion Collection Hotel, Qutab Institutional Area, New Delhi – 100 016. This workshop was organized to enhance the understanding amongst participants about systematic reviews both in terms of their appraisal as well as conduct. It was anticipated that following the workshop, participants will be able to make better informed decisions about healthcare especially with regards to issues in maternal, neonatal and child health and nutrition in India.

II. PURPOSE

The purpose of the workshop was to build the capacity of public health professionals to understand and evaluate systematic reviews and identify their role in evidence informed health care and health policy with special reference to maternal, neonatal and child health and nutrition policies and programmes.

III. OBJECTIVES

The specific objectives of the workshop were to:

1. To increase capacity among participants to understand the role of systematic reviews of interventions used in health care in informing healthcare and health policy.
2. To increase capacity among participants to understand the levels of evidence afforded by different study designs evaluating the effects of interventions in minimizing the risk of bias and of random error.
3. To increase capacity to understand the components of good quality systematic reviews and meta-analysis of interventions and to critically appraise systematic reviews pertaining to maternal, neonatal and child health and nutritional interventions.
4. To increase capacity to understand the processes and challenges to translating evidence from systematic reviews into health policy and practice and in public health
5. To facilitate the formation of effective networks of trained professionals in MCH-STAR supported institutions and programmes and the South Asian Cochrane Network & Centre, an independent centre of the Cochrane Collaboration



IV. FACILITATORS

Prof Prathap Tharyan, Director, South Asian Cochrane Network & Centre

Dr. Ruhi Saith, Head Research, Public Health Foundation of India, New Delhi

Ms. Laurie Parker, Country Director, IntraHealth International, New Delhi

Dr. Indrajit Hazarika, Research and Evaluation Specialist, MCH-STAR Initiative

V. SESSIONS

Session 1: Introduction to evidence informed health care and the role of systematic reviews and meta-analysis

The session was intended to demystify some of the terminology, techniques and practices used to assess clinical and economic evidence within healthcare. This session introduced the participants to the concepts of evidence based medicine and stressed on its importance in healthcare practice. The session highlighted that an understanding of evidence based medicine and how to implement it in practice was now crucial for all professionals involved in the delivery of healthcare. The participants were explained the different levels of evidence that exist in literature and how to evaluate the value of the information and its relevance in public health practice. The participants were also given an overview of systematic reviews and meta-analysis.

Session 2: Assessing risk of bias: the role of study designs and outcomes



The purpose of this session was to introduce the participants to the concepts of bias in various study designs and to illustrate the impact of biases on study outcomes. The session began with a brief discussion on the different study designs commonly used by researchers. It demonstrate why randomized controlled trials are considered as the ideal study design and the essential elements within this design that need to be adhered to in order to achieve the true outcomes of the interventions under study. The session was followed by a participatory discussion on the importance of rigorous

study designs and the importance of avoiding biases during study implementation. The participants also debated on the relevance of randomized controlled trails in the field of public health practice due to its inherent complexities.

Session 3: Steps in undertaking a systematic review: an overview

During this session, the participants were given an overview of the steps involved in undertaking a systematic review. They were illustrated the methodology involved in conducting a systematic review. The participants were advised that before undertaking a systematic review it is necessary to check whether there were already existing or ongoing reviews and whether a new review was justified. They were shown the various databases



that could be searched to retrieve such information. The participants explained the importance of the research question and on how to identify the PICO (Population, Intervention, Comparison, Outcomes) elements within the research question. This was followed by a discussion on the the review protocol which is meant to set out the methods to be used in the review. The participants were explained that the protocol should include sections on the decisions about the review question, inclusion criteria, search strategy, study selection, data extraction, quality assessment, data synthesis and plans for dissemination.

Session 4: Searching for and locating trials using The Cochrane Library (CENTRAL) and PubMed and introduction to RevMan5 and GradePro



This was planned as a practical session in which the participants were encouraged to connect to the internet portal of the Cochrane database and identify the resources and links that were available. The participants were demonstrated the contents of the Cochrane library and its potential for utilization in their research in the field of maternal, neonatal and child health and nutrition. The participants were also introduced to the RevMan 5, a software provided by the Cochrane Collaboration to conduct systematic reviews or meta-

analysis. The participants were demonstrated the different features of the software and its applicability in conducting a review. They were also explained the concept of heterogeneity that could potentially arise when different study design and methodologies were used to conduct a systematic review. The participants were also provide with a demonstration of the GradePro software which is also commonly used by researchers to grade the quality of the evidence that is collected during the process of conducting a systematic review. The session was followed by discussions on the different research questions that the participants had been engaged in and were eager to conduct a systematic review.

Session 5: Critical appraisal of a systematic review from the Cochrane Library

In this session the participants were asked to critically appraise a review from the Cochrane library on an issue related to MNCHN. The participants were given a review tool which identified the key areas that should be evaluated whenever a researcher appraises a review article. The session was followed by a detailed discussion on the different methodologies that are involved in synthesizing a review using data from different study sources. It brought into focus the variability in the approach especially in relation to topic relevant to public health where most agreed that the evidence came from observational studies, qualitative studies or other non-experimental study designs. It was appreciated that though the level of evidence from randomized controlled trials was optimal their availability and applicability in the realms of public health practice may be compromised.



Session 6: Vistaar and evidence reviews

This session was meant to provide the participants with an understanding of other methods used to do evidence reviews. The VISTAAR experience on conducting evidence reviews in India was shared with the



participants. There were several issues which emerged during the discussions in this session. One of the main issues discussed was the lack of good quality studies from the Indian subcontinent. It was felt by the group that even though Indian based studies would provide contextual evidence to influence policies and programs in the country, the lack of credible evidence had created a vacuum. There were also discussions regarding the



quality assessment of studies and whether it is pragmatic to compromise standards used to define a good quality study to enable inclusion of evidence from India, when conducting an evidence review. The need for Indian institutions to be more rigorous in their study methodology was unanimously felt by all participants. The participants also discussed about the need to get more evidence into public domain including better documentation of government successes and large scale programs.

Session 7: Evidence reviews: panel discussion

A panel of experts carried forward the discussion regarding the different methodologies for reviewing evidence. The panelist included Dr. Prathap Tharyan, Dr. Marta Levitt Dayal and Ms. Laurie Parker. The purpose of this session was to share and exchange experiences of evidence reviews from those who have actually undertaken such analysis in the recent past. The panelist discussed about the challenges in conducting evidence reviews in public health issues especially in the Indian context due to several challenges which include the lack of available data in the public domain, the poor quality of Indian studies and the low priority of government officials on evidence based practice.

Session 9: Systematic reviews in observational studies

Most of the evidence in public health domain is derived from observational or non-randomized study designs. Performing a systematic review using these study design is a challenge due to the heterogeneity in the study approach and designs. In this session, the participants were introduced to observational study designs, circumstances of their inclusion in systematic reviews, the challenges of including such studies in systematic reviews and ways to overcome these challenges. The participants were also demonstrated the Newcastle-Ottawa-Scale, a recommended scale for the quality assessment of observational studies. The session also included an illustration of the WHO systematic review for the estimation of maternal morbidity and mortality. The session was followed a participatory discussion on assessment of study quality and further stressed upon the need to improve the quality of the studies conducted in India.

Session 10: Systematic reviews in Public Health

This session was devoted to the concept of systematic reviews in public health. Participants were introduced to the concept, evolution and present status of the Cochrane Public Health Working Group. It was also illustrated to the participants how a systematic review differs from a traditional review and why a systematic approach was more appropriate as a means to provide evidence for better health care practice. The participants were walked through the steps involved in conducting a systematic review on a question of public health importance. The session was followed by discussions on importance of systematic reviews in public health and how they could influence policies and programs to attain fruitful health outcomes.

Session 11: Steps to formulating a protocol for systematic reviews

This session was designed as a group work. Each group was given identified thematic area relevant to Maternal, Neonatal and Child Health and Nutrition (MNCHN) in India. The themes included:



1. Public Private Partnerships in Primary Health care
2. Management barriers to Maternal Health
3. Accountability and Maternal and Neonatal Health
4. Birth Preparedness and Complication Readiness

The groups were asked to develop an outline of their review protocol, focusing the on specific components of the protocol:

- Has this question already been answered? If yes, can you improve this?
- Why do this review? Relevance/ Importance
- Title
- Population, Intervention, Comparison, Outcomes and Type of studies- PICO(T)
- Sources of studies
- Bias
- Synthesis

Each group then made a presentation of their outline for the review protocol which the experts and facilitators critically examined and provided feedback.

The following topics evolved as research questions for reviews during the course of the discussions:

1. Contracting out primary health care services to the private sector (for profit and not for profit) for increasing uptake of services or Contracting out primary health care services to NGOs for increasing uptake of services by the poor: PHFI
2. Management barriers to maternal health care : CINI
3. Intervention to promote of accountability for improving maternal health outcomes: IndiaCLEN
4. Birth preparedness & complication readiness: PFI

Session 12: The South Asian Cochrane Network

This session was devoted to introduce the participants to the South Asian Cochrane Network. The participants were provided with information regarding the center, its evolution and the range of work that the center was involved in. The session further stressed on the importance of importance of evidenced informed health care and its relevance and pragmatism in the field of public health. Several examples were provided to the participants to illustrate the importance of using evidence in the practice of public health not only to reach better health outcomes but also to ensure provident use of resources.

Toward close of the workshop, Dr. Marta Levitt-Dayal thanked the facilitators and the participants for their contribution and active participation in the workshop. The participants were encouraged to continue their work on the identified review questions and were offered assistance and guidance for their works.



VI. HIGHLIGHTS

The scope of the present workshop was focused on illustrating the importance of evidence informed health practice in the field of maternal, neonatal and child health and nutrition; provide an overview of systematic reviews to generate credible evidence which can influence MNCHN programs and policies, provide examples of successful incorporation of evidence reviews into policies and programs; besides building the capacity of the participants from the STAR-Supported Institutions to understand and appraise review. The participants showed keen interest in all the sessions of the workshop and were actively involved in the discussions that followed each session. The participants were introduced to different softwares that are commonly used by researchers conducting systematic reviews and meta-analysis. A copy of these softwares was also provided to the participants. In particular, many of the participants expressed interest in conducting systematic review in themes relevant to MNCHN and were eager to continue work on the research questions identified during the workshop.

VII. CHALLENGES

The main challenge while designing the workshop session was to decide the level and depth of the content of the workshop. This was due to varied background of the participants which ranges from medical, social sciences to statistics. Therefore, the scope of the workshop was limited to provide an overview of systematic reviews.

VIII. OUTPUT

The main output of the workshop was the introduction of the participants to the methodology used in conducting and appraising systematic reviews, the demonstration and provision of the software used to conduct systematic reviews and meta-analysis and the identification of topics on MNCHN to conduct systematic reviews by each of the SSIs.

IX. SUMMARY OF EVALUATION

An evaluation of the workshop was conducted by asking the participants to fill up the form and provide their feedback on each of the session. The participants rated the sessions as productive and found the topic included in the workshop extremely useful in their area of work.



X. ANNEX 1: AGENDA

Workshop on Systematic Reviews in MNCHN Policies and Programs 14-15 April 2009, NEW DELHI

Tuesday 14 April 2009		
Date and time	Topic	Resource person
09.00 - 09.15 am	Introduction of faculty and participants and their expectations from the of workshop	MCH-STAR
09.15 - 09.30 am	Introduction to the agenda of the workshop	Prathap Tharyan
09.30 - 10.30 am	Introduction to evidence informed health care and the role of systematic reviews and meta-analysis	Prathap Tharyan
10.30 - 10.50 am	Tea break	
10.50 - 11.50 am	Assessing risk of bias: the role of study designs and outcomes	Prathap Tharyan
11.50 - 1.00 pm	Steps in undertaking a systematic review: an overview	Prathap Tharyan
1.00 - 2.00 pm	Lunch	
2.00 - 4.00 pm	Searching for and locating trials using the Cochrane Library (CENTRAL) and PubMed Introduction to RevMan5 and GradePro	Group work
4.00 - 4.20 pm	Tea break	
4.20 - 5.30 pm	Critical appraisal of a systematic review from the Cochrane Library	Group work and discussions



Wednesday 15 April 2009

Time	Topic	Resource person
09.00 - 10.00 am	Vistaar and Evidence reviews	Laurie Parker
10.00 - 10.30 am	Discussion	Group discussion
10.30 - 10.50 am	Tea break	
10.50 - 12.00 noon	Systematic reviews of Observational Studies	Indrajit Hazarika
12.00 - 1.00 pm	Systematic reviews in Public Health	Ruhi Saith, PHFI
1.00 - 2.00 pm	Lunch	
2.00 - 4.10 pm	Steps to formulating a protocol for systematic reviews	Group work
4.10 - 4.30 pm	Tea break	
4.30 - 5.00 pm	The South Asian Cochrane Network	Prathap Tharyan
5.00 - 5.30 pm	Post workshop evaluation and feedback	Participants



XI. ANNEX 1: LIST OF PARTICIPANTS

S.No.	Name of the Participant	Organization	Location	Contact No.
1.	Dr. Rajiv Sharan	IndiaCLEN	Jamshedpur	0657-2286231
2.	Dr. Saira Mehnaz	IndiaCLEN	Aligarh	09927016936/ 09719006936
3.	Dr. Jyoti Dhawan	IndiaCLEN	Delhi	011- 2696-0375/ 2696-0376
4.	Vaishali Deshmukh	IndiaCLEN	Delhi	9868525220
5.	Dr. Lalitendu Jagatdeb	PFI	Delhi	011-26856805/ 9818478011
6.	Dr. K.K. Upadhyay	PFI	Delhi	011-42899784/ 9868248478
7.	Dr. Subrato Mondal	PFI	Delhi	011-42899770
8.	Mr. Nihar Ranjan Mishra	PFI	Delhi	011-42899770
9.	Mr. Manoj Kumar Kandher	PFI	Delhi	011-42899770
10.	Ms. Parul Sharma	PFI	Delhi	011-42899770
11.	Dr Rajmohan Panda	PHFI	Delhi	011-46046000
12.	Dr Pratap Kumar Sahoo	PHFI	Delhi	011-46046000
13.	Dr. Sanghita Bhattacharyya	PHFI	Delhi	011-46046000
14.	Ms. Nandita Bhan	PHFI	Delhi	011-46046000
15.	Dr. Ruhi Saith	PHFI	Delhi	011-46046000
16.	Ms Rosemarie Aguilar	CINI	Ranchi	0651-2245370/ 5831
17.	Dr. Daksha Solanki	CINI	Ranchi	0651-2245370/ 5831/ 09386324345
18.	Ms Abha Ekka	CINI	Ranchi	0651-2245370/ 5831
19.	Ms Anjali Tigga	CINI	Ranchi	0651-2245370/ 5831
20.	Dr. Rekha Ganguly	Govt.	Ranchi	
21.	Mr. Subir Kumar	Govt.	Ranchi	09204788918
22.	Prof. Prathap Tharyan	CMC	Vellore	0416-2284255/ 5214255
23.	Mr. V. Ramesh Babu	USAID India	Delhi	011-2419-8000
24.	Prof. M. Bhattacharya	NIHFW	Delhi	011-26165959/ 26166441
25.	Dr. Meerambika Mahapatro	NIHFW	Delhi	011-26165959/ 26166441
26.	Dr. K.S. Nair	NIHFW	Delhi	011-26165959/ 26166441

