

Workshop On Systematic Review and Meta- Analysis

(Conducted by ICMR-NIIRNCD in collaboration with WHO India Office)

20-21th September, 2021

Conference Room,

ICMR - NIIRNCD, Jodhpur, Rajasthan

Post-event summary report

Introduction:

Implementation research (IR) has been defined in various ways by different institutions. Common interpretations focus on the systematic approach to understanding and addressing barriers to effective and quality implementation of health interventions, strategies and policies. IR is demand-driven and the research questions are framed based on needs identified with relevant stakeholder/implementers in the health system.

Implementation research is conducted within health systems and community settings, removed from the controlled settings associated with other types of scientific research. It is an ongoing process that provides continuous feedback of results back to the health system, facilitating adaptation of services and interventions. So, by its nature, IR is adaptive.

Since the advent of the usage of systematic reviews in the medical sciences in the 1970s, systematic reviews have been increasingly used in the fields of clinical research, public health and the social sciences. But, for a researcher intending to embark on such an endeavour, the fact that a systematic review is a resource-intensive process which presents with a number of challenges, tends to be a deterrent. This workshop intended to break that ice by providing a better understanding of the process of conducting systematic reviews before going to do such reviews on implementation research on Non-Communicable Diseases (NCDs) in India and thus, inspire researchers to explore this path on their own.

Role Of ICMR NIIRNCD

National Institute for Implementation Research on Non-Communicable Diseases (NIIRNCD), Jodhpur, is a research Institute under the aegis of Indian Council of Medical Research, Department of Health Research, Ministry of Health & Family Welfare, Govt. of India. The Institute, located in Jodhpur, came into existence on the 8th of December 2019, replacing the erstwhile Desert Medicine Research Centre. With state of the art facilities to conduct basic laboratory based research in its microbiology, biochemistry and vector biology laboratories, in addition to a full-fledged epidemiology wing, the institute is in the phase of acquiring human resources and facilities for strengthening its capacity to fulfill its mandate to conduct implementation research on noncommunicable diseases (NCDs) in India.

Implementation Research (IR) is important for any health system, as it helps improve the adoption of health policies and enhances policy implementation. A growing yet, not well understood field of health research, this paradigm can contribute to more effective public health and clinical policies and programs. Being an integral domain of health systems research, IR is also an important part of the larger mechanism through which one can ensure that health policy actually translates to desired and sustainable outcomes in the population.

Considering the increasing burden of NCD in India, it is pertinent to plan and implement effective programs for its prevention, control, and treatment. In order to make new efforts in this direction, it is pertinent to first look at what has been done so far and what is being done. It is, thus, imperative to define the ambit of Implementation Research, understand the quantum and diversity of implementation research done in this area in India, which is the aim of this endeavor.

As a part of the Agreement to Perform Work (APW) signed with the WHO, the centre decided to conduct a Workshop Systematic review and Meta- analysis to build the capacity of the team at NIIRNCD to collate evidence on Implementation Research on NCD already done in India. This workshop was also conceived with the intention to garner more interest into the area of scientific evidence synthesis and promote more research efforts in this field.

The Participants & the Faculty:

On 20th September 2021, the “Workshop on Systematic Review and Meta-analysis”, was conducted under the aegis of ICMR-NIIRNCD, Jodhpur. This was the first workshop of its kind, organized and conducted by the center, in which the participants were internal candidates.

A total of **thirteen participants** registered for the workshop, of which 11 participants were scientist from NIIRNCD, and the two participants were technical officers from the institute.

With **Dr Dheeraj Shah**, Professor in the Department of Pediatrics, University College of

Medical Sciences (University of Delhi) taking on the stewardship of the workshop as the course co-ordinator, the other facilitators for the workshop included;

- **Dr. Khan Amir Maroof, MD, FAIMER (CMCL)** , Professor, Department of Community Medicine, University College of Medical Sciences, University of Delhi.
- **Dr. Shaileja Yadav**, 3rd year Resident, Department of Community Medicine, University College of Medical Sciences, University of Delhi.

Sh. Pankaj Kumar (Technical Officer) and **Mr. Mukesh Panwar** (UDC), both from NIIRNCD, Jodhpur, assisted in conduct of the entire workshop.

An overview of the workshop proceedings:

Over the two days, this workshop explored the use of systematic reviews in public health, the steps in conducting a systematic review and quantitative synthesis (meta-analysis). The workshop combined didactic lectures with group sessions & hands-on sessions, dealing with practical examples. Software applications/platforms relevant in the context of evidence synthesis, like Mendeley & RevMan, were introduced to the participants as well.

Through the workshop, the participants were taken on a journey, which intended to enlighten themselves in the following domains:

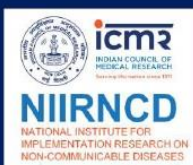
- Introduction to Systematic Reviews and Practical exercises
- Identifying topics for systematic reviews and basic search of literature Practical exercises with presentation from participants
- Framing Research Question and Eligibility Criteria and PICO exercises
- Building Team for systematic review
- Designing a Search Strategy and Exercises on Search strategy
- Resources for literature search
- Developing Protocol for systematic review ,Introduction to RevMan and Practical exercises on developing a sample protocol
- Reference management using software
- Screening of studies for eligibility and Practical exercises on Revman full review template
- Assessment of Quality of Studies & Risk of bias and Practical exercises on Revman
- Data extraction & Data handling
- Meta-analysis in systematic review and Practical exercises on interpretation of meta-analysis
- Grading the evidence and interpretation of GRADE

Selected snapshots from the Workshop





Program Flyer



Systematic Review and Meta-Analysis (SRMA) Workshop

20-21st September, 2021

Time | 09:00 AM IST – 04:00 PM IST

Faculty



Prof.(Dr.) Dheeraj Shah

Department of Paediatrics,
University College of Medical Sciences, New Delhi



Prof. (Dr.) Khan Aamir Maroof

Department of Community Medicine,
University College of Medical Sciences, New Delhi



Dr. Shaileja Yadav

Department of Community Medicine,
University College of Medical Sciences, New Delhi

**ICMR- National Institute for Implementation Research
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Non-Communicable Diseases,
Jodhpur (Raj.), India**

The ICMR-NIIRNCD WHO-APW Team:

Principal Investigator

- Dr. Arun Kumar Sharma, *Director*

Co-Investigators

- Dr. Hisham Moosan, *Scientist – E*
- Dr. S.S. Mohanty, *Scientist – E*
- Dr. Ansuman Panigrahi, *Scientist – E*
- Dr. Vikas Dhikav, *Scientist – D*
- Dr. Suresh Yadav, *Scientist – C*
- Dr. Ramesh Kumar Huda, *Scientist – B*
- Dr. Mahendra Thakor, *Scientist - B*



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