Health Economics Workshop

22nd March 2022

Chennai

Organized by

ICMR-National Institute for Research in Tuberculosis
ICMR-National Institute of Epidemiology
Directorate of Medical Education, Government of Tamil Nadu
Department of Health Research, Government of India

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Executive Summary

The Regional Resource Centre for Health Technology Assessment in India (HTAIn), ICMR-National Institute for Research in Tuberculosis in collaboration with the Directorate of Medical Education, Government of Tamil Nadu, ICMR-National Institute of Epidemiology & Department of Health Research, Government of India organized the "Workshop on Health Economics" in Tamil Nadu on 22nd March 2022. The purpose of this workshop was to provide technical support on the application of economic tools in the health research and to generate health economics evidence to make decisions relating to drugs, devices, treatment pathways and preventive health intervention strategies. The participants were medical college graduates and post graduates. The workshop was inaugurated by Dr. R. Narayanababu M.D, DCH, Directorate of Medical Education and all the guests were welcomed by Dr. Padmapriyadarsini, Director, ICMR-NIRT, Chennai. Dr. M Muniyandi, Scientist-D & HOD, Department of Health Economics, ICMR-NIRT, Dr. A Mohammed Faisal, Assistant Professor, School of Management Studies, Vels Institute of Science, Technology & Advanced Studies, Dr. Rajendran K, Scientist E, HOD, Department of Statistics, Epidemiology Unit, ICMR-NIRT, Dr. Sajith Kumar, Scientist-C, HTARC, ICMR-NIE presented in the workshop.

Acknowledgement

We thank Dr. R. Narayanababu M.D, DCH, Directorate of Medical Education for inaugurating the workshop. We also thank Dr. Xavier Christu Rajan V, Nodal Officer, Directorate of Medical Education for his support and presence in the workshop. We thank Dr. Padmapriyadarsini, Director, ICMR-NIRT, for permission and all supports to conduct this workshop. Dr. A Mohammed Faisal, Assistant Professor, School of Management Studies, Vels Institute of Science, Technology & Advanced Studies, Dr. Rajendran K, Scientist E & HOD, Department of Statistics, Epidemiology Unit, ICMR-NIRT, Dr. Sajith Kumar, Scientist-C, HTARC, ICMR-NIE, We acknowledge Dr. M Muniyandi, Scientist-D & HOD, Department of Health Economics, ICMR-NIRT for sharing their knowledge by presenting informative presentations to the participants.

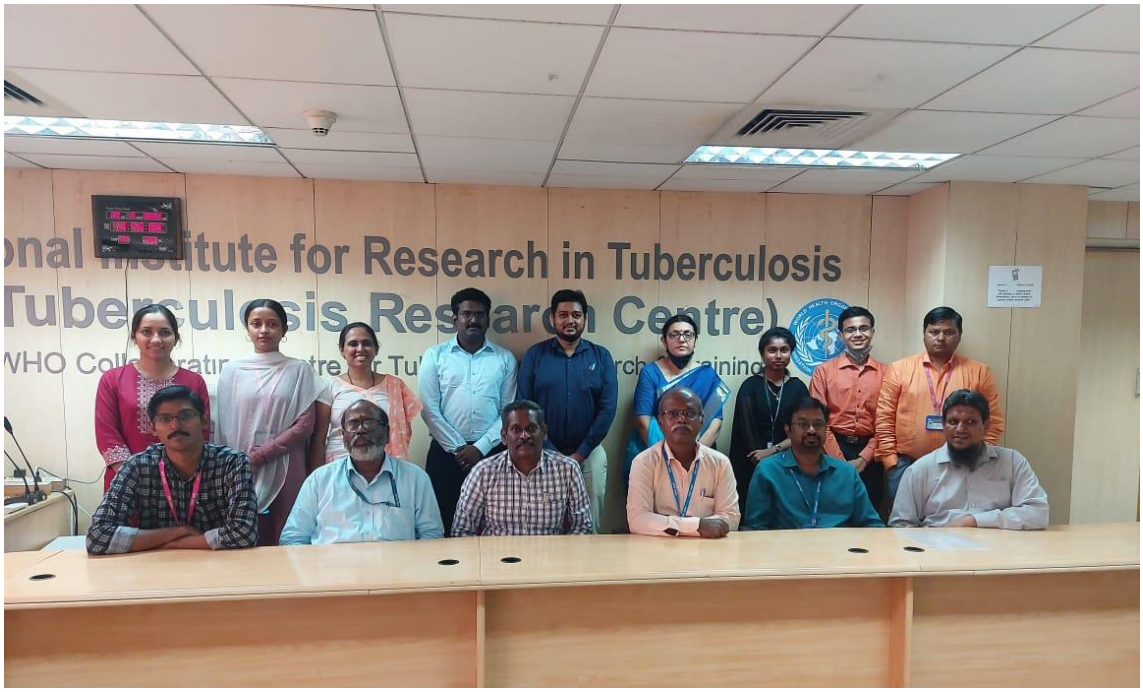
Proceedings of the Health Economics Workshop

22nd March 2022

NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, SPT AUDITORIUM

Proceedings of the Health Economics Workshop

The Department of Health Economics has organized the "Health Economics Workshop" in SPT Conference Hall, ICMR-National Institute for Research in Tuberculosis on 22nd March 2022. The importance of health economics is being increasingly recognized in public health and health research settings at the government and non-governmental levels. The objective of this workshop is to provide technical support on the application of economic tools in health research and to generate health economics evidence to make decisions relating to drugs, devices, treatment pathways, and preventative health intervention strategies.



Flyer

Workshop on Health Economics

Date
22nd March 2022

Time
09.00AM – 5.30 PM

Venue
ICMR-National Institute for Research in Tuberculosis
No. 1, Mayor Sathyamoorthy Road, Chetpet, Chennai 600031

Background

Health Economics is a growing academic and research discipline in India. The importance of health economics is being increasingly recognized in public health and health research settings at the government and non-governmental levels. More complex research, development and diagnostic capabilities are leading to higher healthcare costs, healthcare budgets are stretched at state and central level so that health economics is now foundational and integral to healthcare decision making at every level.

Objective

The objective of this workshop is to provide technical support on application of economic tools in health research and to generate health economics evidence to make decisions relating to drugs, devices, treatment pathways and preventative health intervention strategies.

Topics covered

- Health Technology Assessment (HTA)
- Introduction of Health Economics
- Multi-attribute decision-making methods
- Introduction to Decision tree and Markov model
- Measurement of Health outcomes (QALY, DALY, YLL)
- Economic Evaluation in Health Care

Contact Person

Dr. M. Muniyandi, ICMR-National Institute of Research in Tuberculosis, Chennai-31. Mobile: 9840137837;
E-mail: muniyandi.m@nirt.res.in
Dr. Xavier Christu Rajan V, Nodal Officer, Directorate of Medical Education, Chennai-10 Mobile: 9884989899;
E-mail: xavier.v.dr@gmail.com

Intended Participants

The State level workshop is designed for Medical College Graduates and Post Graduates. Prior registration is Mandatory and restricted to first 30 participants.

Registration is Free

https://forms.gle/Bs5GUqaUg9hCxHP26
Last date for registration 15th March 2022

Mode of Event

This workshop is planned as an in-person event, subject to change based on COVID circumstances.

Jointly Organised By

Directorate of Medical Education, Government of Tamil Nadu, ICMR-National Institute for Research in Tuberculosis, ICMR-National Institute of Epidemiology & Department of Health Research, Government of India.

Topics & Speakers

Welcoming address
Dr. Padmapriyadarsini
Director, ICMR-NIRT, Chennai

Opening Remarks
Dr. R. Narayanababu M.D., DCH.,
Director
Directorate of Medical Education

Introduction of Health Economics
Economic Evaluation in Health Care
Dr. M Muniyandi
Scientist-D & HOD, Department to Health Economics, ICMR-NIRT

Multi-attribute decision-making methods
Dr. A. Mohammed Faisal
Assistant Professor
School of Management Studies
Vels Institute of Science, Technology & Advanced Studies

Introduction to Decision tree and Markov model
Dr. Rajendran. K.
Scientist E, HOD, Division of Statistics and Epidemiology Unit; ICMR-NIRT

Measurement of Health outcomes
Dr. Sajith Kumar
Scientist-C , HTARC
ICMR-NIE

Agenda

Workshop on Health Economics

Venue: ICMR-National Institute for Research in Tuberculosis, No. 1, Mayor Sathyamoorthy Road, Chetpet, Chennai

22nd March 2021 – 09:30 AM – 05:30 PM

INAUGURAL SESSION		
Timings	**Topic**	**Speaker**
09:30-10:00	Registration	
10:00-10:10	Welcoming address	Dr. Padmapriyadarsini, Director, ICMR-NIRT, Chennai
10:10-10:30	Opening Remarks	Dr. R. Narayanababu M.D, DCH, Directorate of Medical Education
10:30-11:10	Introduction to Health Economics and Health Technology Assessment	Dr. M. Muniyandi, Scientist-D & HOD, Department of Health Economics, ICMR-NIRT
11:10-11:30	Tea Break	
11:30-01:00	Multi-attribute decision-making methods	Dr. A. Mohammed Faisal, Assistant Professor, School of Management Studies, Vels Institute of Science, Technology & Advanced Studies
01:00-02:00	Lunch Break	
02:00-03:00	Introduction to the Decision tree and Markov Model	Dr. Rajendran. K, Scientist E & HOD, Division of Statistics and Epidemiology ICMR-NIRT
03:00-03:20	Tea Break	
03:20-04:20	Measurement of Health outcome	Dr. Sajith Kumar, Scientist-C, HTARC, ICMR-NIE
04:20-04:50	Economic Evaluation in Health Care	Dr. M Muniyandi, Scientist-D & HOD, Department of Health Economics, ICMR-NIRT
04:50-5:20	Data analysis using SPSS software	Health Economics Department, ICMR-NIRT
5:20-05:30	Vote of Thanks	Dr. M Muniyandi, Scientist-D & HOD, Department of Health Economics, ICMR-NIRT

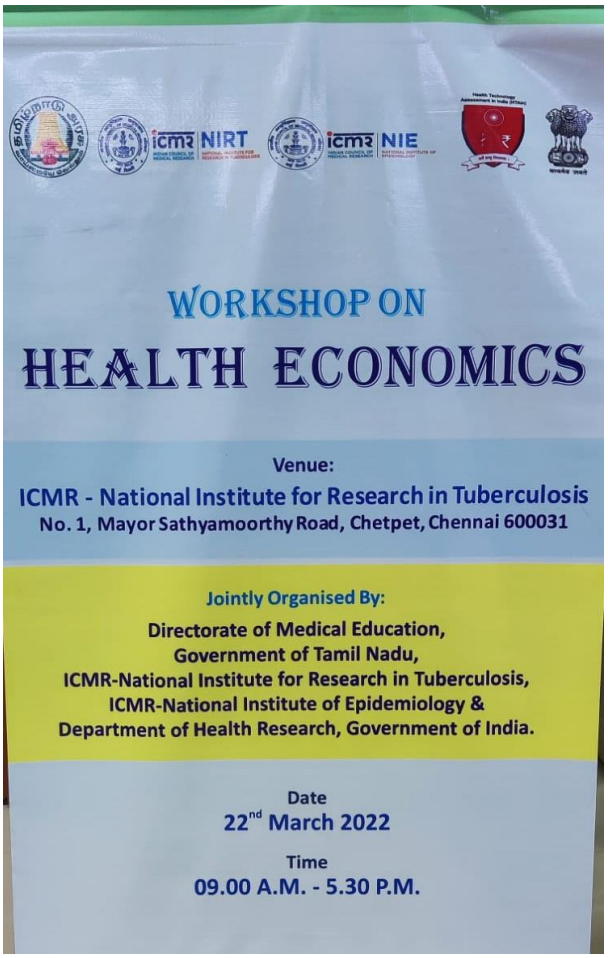
Jointly Organised by:

Directorate of Medical Education, ICMR-National Institute for Research in Tuberculosis, Government of Tamil Nadu, ICMR-National Institute of Epidemiology & Department of Health Research, Government of India

Welcome

Dr. Padmapriyadarshini C, Director, ICMR-NIRT, Chennai

"I am glad to jointly hold this Health Economic workshop with Directorate of Medical Education, Government of Tamil Nadu, ICMR-National Institute for Research in Tuberculosis, ICMR-National Institute of Epidemiology & Department of Health Research, Government of India. The importance of health economics is being increasingly recognized in public health and health research settings at the government and non-governmental levels"



Inauguration

Inaugural Address

Dr. R. Narayanababu M.D., DCH,
Director,
Directorate of Medical Education

Dr. R. Narayanababu addressed the importance of Health Economics in India. 85% of the patients were treated in government hospital for COVID-19 during pandemic in Tamil Nadu. He said that "Health is wealth but, now in this era if we have wealth then we have health", so here comes the importance of health economics. With proper economic goals and model we can provide equitable health care to all the people in the state.

Introduction to Health Economics and Health Technology Assessment

Health Economics is the discipline of economics concerned with:

- Issues related to efficiency, effectiveness, value & behavior in the production & consumption of health & healthcare.
- Essentially trying to maximize health benefits to society with the available resources.
- Study of all the financial aspects of health care system.

Dr M. Muniyandi, Scientist-D & HOD, Department of Health Economics, ICMR-NIRT, Chennai

Health Technology Assessment

- HTA is a technique for economic evaluation that is well adopted by developed countries
- In India the Department of Health Research has set up a HTA body named as "Health Technology Assessment in India (HTAIn)" to evaluate all kinds of Medical Technologies.
- HTAIn for evaluation of appropriateness & cost effectiveness of the available & new Health Technologies in India.

HTAIn aims

- To maximize health in the population, reduce out of pocket expenditure (OOP) & reduce inequity.
- To support the process of decision making in health care at the Central & State policy level by providing reliable information based on scientific evidence.

Multi-attribute decision-making methods (MADM)

Dr. Mohammed Faisal,
Assistant Professor,
School of Management Studies,
Vels University

- MADM is a sub- discipline of operations research that explicitly evaluates multiple conflicting criteria in decision making.
- Typically there does not exist a unique optimal solution for problem, MADM is necessary to use decision-maker's preferences to differentiate between solutions.

Introduction to Decision tree and Markov Model

- A decision tree is a decision support tool that uses a tree-like model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility.
- Markov models are often used to model the probabilities of different states and the rates of transitions among them. Markov models can also be used to recognize patterns, make predictions and to learn the statistics of sequential data.

Dr Rajendran. K, Scientist E & HOD,
Division of Statistics and Epidemiology
ICMR-NIRT, Chennai

Measurement of Health outcome

Quality Adjusted Life Years (DALYs)

- Ability to perform everyday activities which reflects physical psychological, and social well-being and patient satisfaction with levels of functioning and the control of disease and/or treatment related symptoms.
- QALYs allow comparisons across disease areas.

Dr. Sajith Kumar,
Project Scientist -C, HTARC,
ICMR -NIE

Disability Adjusted Life Years (DALYs)

- A common measurement unit for morbidity and mortality.
- It combines information about mortality and morbidity in a single number. Thereby allows the losses due to disability and the losses due to premature death to be expressed in the same unit.
- Facilitates comparisons of all types of health outcomes.

Economic Evaluation in Health Care

Dr M. Muniyandi, Scientist-D & HOD,
Department of Health Economics
ICMR-NIRT, Chennai

Health Economic studies provide information to decision makers for efficient use of available resources for maximizing health benefits.

Economic Evaluation is one part of health economics.

It is a tool for comparing costs & consequences of different interventions.

It contributes to evidence-based decision making by helping the public health community identify, measure & compare activities with the necessary impact, scalability & sustainability to optimize population health

Data analysis using SPSS software

SPSS stands for Statistical Package for the Social Sciences. This software was created for the management and statistical analysis of social science data.

Department of Health Economics
ICMR-NIRT, Chennai

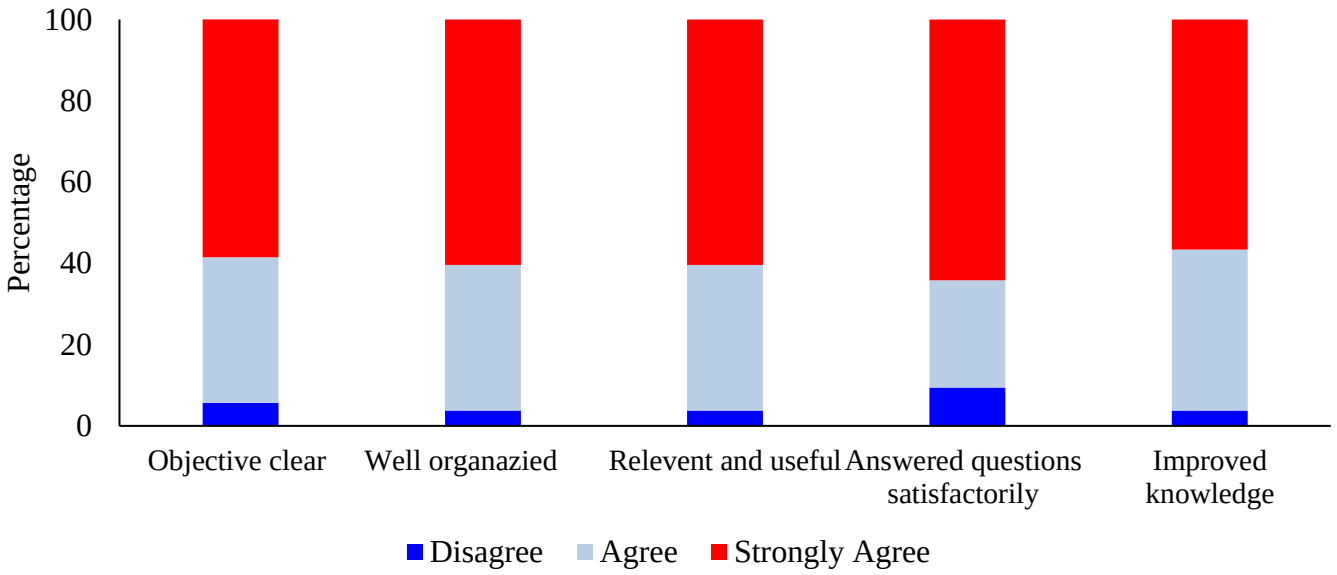
Vote of thanks

Dr. M Muniyandi, Scientist-D & HOD, Department to Health Economics, ICMR-NIRT expressed his sincere and humble thanks to Dr. R. Narayanababu M.D, DCH, Directorate of Medical Education who gave anticipated support to make this event successful. He thanked Dr. Xavier Christu Rajan V, for his generous support to conduct the workshop. He also thanked the respectable Dr. Padmapriyadarsini, Director, ICMR-NIRT for permission and all supports to conduct this workshop. He thanked Dr. A. Mohammed Faisal, Dr. Rajendran. K, Scientist E, Dr. Sajith Kumar, Scientist-C, for presenting such an informative session for the participants. He later thanked all the participants for making this workshop successful.

Participant's feedback about the workshop

We developed a feedback form with five questions to measure the participant's satisfaction with the workshop. The summary of the feedback is given in the graph.

Figure. Participants feedback about the workshop



Annexure A- Participants list

OFFICERS

S.No.	Name	Designation	Organisation
1	Dr. R. Narayanababu	Director	Directorate of Medical Education
2	Dr. Xavier Christu Rajan V	Nodal Officer,	Directorate of Medical Education
3	Dr. Padmapriyadarshini. C.	Director	ICMR-NIRT, Chennai
4	Dr. N. Saravanan	Scientist-D & HOD, Biochemistry	ICMR-NIRT, Chennai
5	Dr. K. R. Uma	Scientist-D & HOD Immunology	ICMR-NIRT, Chennai
6	Dr. Ramalingam. B	Scientist-E	ICMR-NIRT, Chennai

SPEAKERS

S.No	Name	Designation	Organisation
1	Dr. M. Muniyandi	Scientist-D	ICMR-NIRT, Chennai
2	Dr. A. Mohammed Faisal	Assistant Professor	Vels Institute of Science, Technology & Advanced Studies
3	Dr. Rajendran. K.	Scientist E	ICMR-NIRT, Chennai
4	Dr. Sajith Kumar	Project Scientist C	ICMR-NIE, Chennai

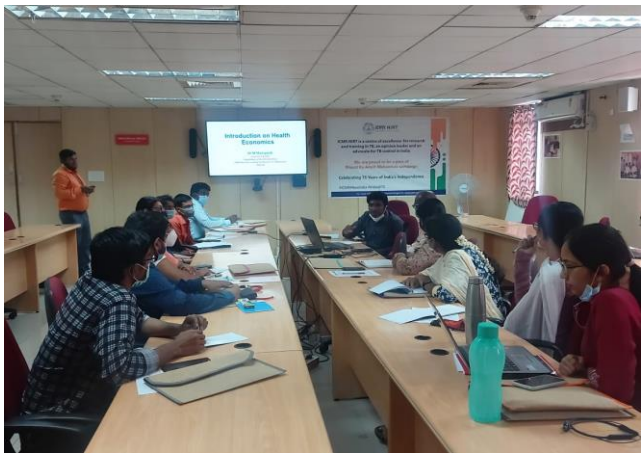
PARTICIPANTS

S.No.	Name	Designation	Organisation
1	Dr. K. MD. Shoyaib	PG- Community medicine	Bangalore Medical College, Bangalore
2	Dr. Raksha R Nayak	PG- Community medicine	Bangalore Medical College, Bangalore
3	Dr. Sudharshanan Balaji	MBBS	Kilpauk Medical College, Chennai
4	Dr. Nivetha S	Junior Medical Officer	ICMR-NIRT, Chennai
5	Dr. Sakthipriyan Sankar	PG	MGMCRI, Puducherry
6	Dr. Harini Rajeev Laxminarayan	Researcher	
7	Ms. V. Elakkiya	PG -MSC	Vels University, Chennai
8	Ms. K.Srimathi	RA	ICMR-NIRT, Chennai
9	Ms. S. Kokila	MSW	ICMR-NIRT, Chennai
10	Ms. Sangeetha.S	PT III	ICMR-NIRT, Chennai
11	Ms. B.Divya.A	SSW	ICMR-NIRT, Chennai
12	Dr. Komal Patel	PTO	ICMR-NIRT, Chennai
13	Ms. Yamini Aanandhan	PTO	ICMR-NIRT, Chennai
14	Mr. Pravin Kumar Singh	Project Scientist-C	ICMR-NIRT, Chennai
15	Dr. S.Vignesh	Scientist-B	ICMR-NIRT, Chennai

Annexure B - Photos

Measurement of Health Outcomes
for economic evaluation studies
ICMR-NIRT is a cent
and training in TB
advocate fo
We are pr
Bharat Ka Amri
Celebrating 75 Yea
#ICMR4NewIndia #Ind

Measurement of Health Outcomes
for economic evaluation studies


Introduction on Health
Economics

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Research & Training