# Health Technology Assessment Stakeholder's Consultative Workshop 25<sup>th</sup>July, 2016, India Habitat Centre, New Delhi, India



### Introduction

On the 25<sup>th</sup> July, 2016, a workshop was jointly convened by the Department of Health research (DHR), Government of India, The Indian Council of Medical Research (ICMR), and the international Decision Support initiative (IDSI) in order to raise awareness of the initiative to institutionalise health technology assessment (HTA) in India. This initiative aims to introduce a more transparent, inclusive, fair, and evidence-based process by which decisions regarding the allocation of health resources are made in India. The official government press release for the event highlighted the interest of the Indian government to utilise the event to learn from international iDSI partners on how HTA can be best utilised to improve access to affordable health care for the people of India towards the ultimate goal of Universal Health Coverage (UHC). The workshop provided the opportunity for key stakeholders within the field to share experiences, and engage in rich discussion and debate regarding the context, need, function, structure, and future plans for this initiative.

The conference was well attended with over 200 delegates, including senior members of the Indian government such as the 2 newly appointed ministers of state for health, Shri Faggan Singh Kulaste and Smt Anupriya Patel; The DG of health services, Mr Jagdish Prasad; and the secretary of DHR, Dr Soumya Swaminathan.

Speakers at the event included distinguished leaders of health research and public health strategy in India, including Mr Manoj Jhalani, Joint Secretary and Mission Director (NHM), Ministry of Health and Family Welfare, Prof S. K. Reddy, President of the public health foundation of India (PHFI), prof

T Sundaramen, director of the Tata Institute of Social Science (TISS), and Dr Sanjiv Kumar, Director of the National Health Systems Resource Centre (NHSRC). Distinguished International speakers from Thailand and the UK were also in attendance, and delivered presentations sharing global experiences of utilising HTA to set priorities in health. Speakers shared their insight into both the promise and challenge of implementing HTA in India and raised key issues for consideration, such as how the board will function at the central and state level, and what kinds of evidence and data will be used to inform analyses and decision making.

The breadth of backgrounds of attendees, ranging from central and state government, academic institutions, not for profit organisations, public and private health insurers, international agencies such as the WHO and the World Bank, the armed forces, national trusts, and think-tank institutions made for lively debate and rich discussion.

Institutionalising HTA in India will require government support, technical capability and capacity, and a fit for purpose health system that can support its implementation. By bringing together Indian academics, healthcare providers, insurers, and policy-maker representatives with international experts in the field, this joint DHR-iDSI workshop facilitated an open platform to discuss and address these issues and plan a way forward for India. This workshop paves the way for the beginning of the long path towards building a sustainable HTA framework to inform coverage decisions as part of India's Universal Health Care agenda.

# The Inaugural

The inaugural session provided a platform by which leaders in the Indian, UK, and Thai governments could share their ideas on what institutionalising HTA can do for India and express their united support for his initiative on behalf of their respective departments and organisations. The event was opened by the Director General of DHR and secretary ICMR, who discussed the mandate to establish an MTAB, as laid out in the 12<sup>th</sup> 5-year plan and the responsibility for this that was allocated to DHR. Dr Soumya reiterated that India looks forward towards achieving the SDGs and UHC, and that the Government has expressed commitment to increase expenditure on health and towards supporting this HTA initiative.

"HTA will provide a transparent, consultative process of decision making that is based on evidences and provides inputs to policymakers for providing universal health services that are affordable, appropriate and effective"

### Dr. Soumya Swaminathan, Secretary, Department of Health Research

Senior members of the Indian government such as the 2 newly appointed ministers of state for health, Shri Faggan Singh Kulaste and Smt Anupriya Patel; and the DG of health services, Mr Jagdish Prasad were also in attendance and spoke of their support on behalf of the government of India towards this initiative.

"Health Technology Assessment is very essential and needed for achieving Sustainable Development Goals (SDGs) and goals set under the Five Years Plans of the Government...this will aid in fulfilling commitment of the Government and will help in bringing people of the country under the Universal Health Coverage (UHC)"

Shri Faggan Singh Kulaste, Minister of State, Health & Family Welfare

"Universal Health Coverage (UHC) is the need of the hour for India and HTA can be a potent solution for this. The Government is very keen and has already started a journey towards achieving this...the Government is committed towards HTA ...HTA will help to shift towards evidence-based policymaking and the insights and valuable experiences of NICE (UK) and HiTAP (Thailand) [iDSI] will help to framing an effective UHC"



Smt. Anupriya Patel, Minister of State (HFW)

The new National health protection policy was discussed as soon be unveiled and adopted and that this marks an important and opportune moment in time to look to how to best plan health for a sustainable future. Priority setting was raised as a highly important area of focus for India, whereby the question of how to provide best possible health care, including treatment, preventive and promotive healthcare within the limited resources that India has available must be considered. HTA was discussed as the tool to achieve more effective priority setting. Both National and international examples were discussed to highlight the use of HTA towards more effective priority setting. The National Technical Advisory Group on Immunization (NTAGI) was discussed as a successful national example of a program which translates evidence to policy and makes recommendations to the Government regarding which vaccines should be paid for and when and how they should be used. This is an example of well thought out evidence-based policy being practiced in India. Examples from NICE in the UK and HTAP in Thailand were also discussed, and both Dr Soumya and Smt Anupriya raised the importance of working with these countries in order to engage in meaningful knowledge exchange and learn from International partnerships.

The inaugural session was closed with an outline of the key messages for improving priority setting in India through ensuring the implementation of a transparent process, free from conflict of interest, incorporating the views of a wide range of stakeholders, where decisions are explicit and based on clearly defined processes and principles.

"The decision-making process should be open to all to see and clear on what process it is based on – this is the science of decision making, and this is what HTA will provide"

### Dr. Soumya Swaminathan, Secretary, (DHR)

# Technical Session 1: Sharing Experiences

Technical session 1 focused on learning from International examples of how HTA has been used globally to transform the political economy of decision making into a more fair, transparent, and effective system of allocating health resources.

International speakers from Thailand and the UK delivered presentations sharing global experiences of utilising HTA to set priorities in health. Dr Yot Teerawattananon gave a compelling presentation on the establishment of the Health Intervention and Technology Assessment (HITAP) program of Thailand, which has been key to Thailand's success in achieving Universal Health Coverage. Dr Yot reiterated the fact that regardless of what mechanism are being utilised, policy makers are making difficult decisions on a daily basis. What HTA provides is a mechanism to ensure that decisions are evidence-based and thus easier to defend to the public because the process of decision-making is fair and transparent. HTA allows a reason behind the decisions to be given.

"If we develop a HTA system in India, decision makers are able to be more comfortable in their ability to say no due to limited resources. HTA gives a reason behind the decisions"

### Dr Yot Teerawattananon, Founding leader, HITAP

Professor Antony Culyer, director of iDSI, and Dr Kalipso Chalkidou, founding leader of iDSI, presented on the utility of the iDSI network in providing strategic support and opportunity for knowledge exchange in India to establish the HTA program, outlining the following key criteria to the success of any initiative to effectively establish a functioning HTA system:

- 1. Strong Government commitment and leadership
- 2. Creation/strengthening of government and public structures
- 3. Adoption of strategic plans
- 4. Ability to compare interventions (consequences, costs, other effects)
- 5. Explicit criteria
- 6. Transparent processes
- 7. Allocation of resources for data collection and analysis
- 8. Ongoing stakeholder consultation and participation in setting up, maintaining, and running the system



"Each country must exercise local power to invest and advocate for this initiative. The result is to create something credible, sustainable, and leads to better health decisions. Better health decisions lead to better health"

### Prof Antony Culyer, Professor Emerita & Chair, International Decision Support Initiative (iDSI)

Prof Bruce Campbell shared his experiences of how NICE was established in the UK and the important lessons learned during this process, such as working closely with the clinical community and public stakeholders in order to gain their trust and acceptance of HTA decisions. In addition, Mr Lluis Vinals Torres, health finance advisor of the WHO south East Asia Regional Office (SEARO) gave an enlightening presentation outlining the need for defining platforms where HTA can be developed and utilised, such as to inform the health benefits package. Mr Torres reiterated that strengthening such platforms of healthcare deliver to make best use of HTA decision-making will improve the prospect of India moving towards Universal Health coverage.

Dr Ashoo Grover, Scientist E at ICMR, discussed the need for establishing a fair and transparent system of priority setting through the use of HTA. Dr Grover outlined the actions that have been taken so far to establish a Medical Technology Advisory Board (MTAB) housed within the Department of health research (DHR), including the convening of an advisory committee to oversee this initiative.

# Technical Session 2: Priority Setting for Universal Health Coverage

Technical Session 2 focused on the intrinsic link between improving priority setting and achieving Universal Health Coverage.

Professor Srinath Reddy opened the session by discussing the importance of defining a health benefits package (HBP) to reduce out of pocket spending and ensure access to healthcare for the population in line with the UHC agenda. Prof. Reddy raised the importance of the collection and utilisation of evidence towards defining what services are included in a HBP, how services are best delivered, and what kind of financing model is most appropriate to ensure feasibility and sustainability. Strengthening the primary care system, which is estimated to account for 70-80% of healthcare needs, was discussed as imperative towards the UHC agenda.

Mr Manoj Jhalani spoke on behalf of the Ministry of Health and Family Welfare of the importance of utilising HTA to strengthen the National Health Mission and the soon to be introduced National Health Protection Scheme

"The NHM along with National Health protection scheme will be the principle vehicles to move towards UHC... HTA will help us in identifying the package of entitlement within the NHM"

### Mr Manoj Jhalani, Joint Secretary, Ministry of Health and Family Welfare

Dr Sanjay Mehendale spoke of a novel initiative by the Institute of epidemiology (NIE), an ICMR affiliate, to utilise national epidemiological data sets for evidence synthesis to inform HTA. Mechanisms and platforms to enable evidence to policy translation and develop common platforms involving researchers, policy makers & communities were discussed as part of this program. In order to implement this novel system of data capture and synthesis, ICMR, via the NIE, will establish a new State Health Data resource centre (SHDRC) towards the greater goal of health systems strengthening by improving the quality and quantity of data capture and surveillance systems.

Prof Ramanan Laxminarayan gave an informative presentation regarding economic evaluation for HTA, using examples from the disease control priorities (DCP) project. Prof Ramanan used examples of analysing the cost effectiveness of interventions for health priorities such as road traffic accidents, communicable diseases, and neonatal nutrition to demonstrate the importance of taking both financial and non-financial factors into account when considering the overall 'cost' of any intervention.

International perspectives on utilising HTA towards the Indian UHC agenda were shared by Dr Kalipso Chalkidou, founding leader of NICE International and the International Decision Support Initiative (iDSI) and Dr Phusit Prakongsai, Director of the bureau of International Health, Ministry of Public Health, Thailand. Dr Kalipso discussed the importance of improving the quality and availability of healthcare in India as the economy grows in order to find a balance between the needs of the emerging middle-class and ensuring high-quality, affordable care for all of the population.

"Rational priority-setting means having a transparent process for deciding how to spend limited budgets, using the best available, relevant evidence...involving the relevant policymakers, clinicians, academics and civil society in making these difficult decisions"

### Dr Kalipso Chalkidou, founding leader of NICE International iDSI

Dr Phusit described Thailand's journey towards UHC and the different public health insurance schemes available to the Thai population, including the introduction of the UHC benefits package in 2001.



Dr Phusit described the following as the primary Contributing factors to success of the Thai model in achieving UHC:

- 1. Systems design focus on equity and efficiency
- 2. Supply side capacity to deliver services
- 3. Strong leadership with sustained commitment
- 4. Strong institutional capacities

# Technical Session 3: Stakeholders' Perspective on HTA

The third technical provided a platform to share the views of those engaged in the process of evidence to policy translation, either as generators of evidence or end users of the evidence produced for formulation of policy decisions.

The session commenced with Ms Vini Mahajan, Principal Secretary Health, Government of Punjab, sharing views from the State perspective on how HTA can be used as an important tool for allocating resources. She reiterated the importance of HTA by stating that an institutional mechanism to deal with health questions has been long awaited and added that it is important that the structure and governance mechanism of the institute is designed keeping in view the need to build State capacities. The variation in State priorities was highlighted with the need to explore state level partnerships and existing capacities.

"On behalf state health ministers, I would urge to think of state level issues and would be happy to help set up state level bodies to work with a centralised system... we don't have time to waste as we are constantly facing these policy issues with no tools to make evidence informed decisions...This [HTA] is very, very important – let's do it!"

### Ms Vini Mahajan, Principal Secretary, Health, Government of Punjab

"Punjab would be more than happy to provide a home to MTAB should Dr Soumya consider it appropriate"

### Ms Vini Mahajan, Principal Secretary, Health, Government of Punjab

Dr T Sundaraman, Dean of School of Public, Tata Institute of Social Studies (TISS) spoke on the 'role of HTA in the Indian setting for taking better decisions'. He quoted paragraph 8.10 from the draft National Health Policy which stated 'One important capacity with respect to introduction of new technologies and their uptake into public health programmes is health technology assessment' and highlighted the clear articulation of the relevance of HTA in the 12<sup>th</sup> 5-year plan by quoting paragraph 20.194 which recommended 'on the lines of the UK's National Institute of Clinical Excellence (NICE), DHR would develop expertise to assess available therapies and technologies for their cost-effectiveness and essentiality, and formulate and update, on a regular basis, the Standard Treatment Guidelines, and suggest inclusion of new drugs and vaccines into the public health system.'

"HTA can help to design programmes that would lead to effective coverage of the maximum persons within the shortest time. The questions are really of HOW to (design issues) rather than WHETHER to".

### Dr T Sundaraman, Dean of School of Public, Tata Institute of Social Studies

Dr. Prem Nair, Director, Amrita Institute of Medical Sciences spoke on HTA from the perspective of a healthcare organization. He stated that Amrita Institute has been conducting mini HTA, similar to the Danish model, for informing service provision and as a measure for containing cost. This was discussed as advantageous in being able to provide cost effective answers in a short time while meeting faculty requirements. Dr Nair asserted that the mini HTA tool supported the use of evidence-based practice and was good for both new and old technologies, and shared an example on how surgeons were encouraged to perform antibiotic stewardship by changing current practice of triple antibiotic use for pre-surgical prophylaxis to a single more effective antibiotic. This caused great cost savings without any change in outcomes.

Dr Sanjiv Kumar, Executive Director, National Health Systems Resource Centre (NHSRC) spoke on NHSRC's HTA program. He stated that NHSRC is a technical support institution created under the National Health Mission (NHM) to provide support to the Ministry of Health & Family Welfare (MoHFW) and the State centres.



Dr. Sanjiv shared details about the activities related to HTA being carried out by NHSRC, including the training of professionals on HTA in a fellowship program.

Dr Francoise Cluzeau, Associate Director NICE International, spoke on the development of Standard Treatment Guidelines in India and the way in which HTA can inform best practice guidelines of care.. Dr. Cluzeau shared details on the technical assistance provided by NICE International in India for the development of Quality Standards for maternal care in Kerala and the development of national Standard Treatment Guidelines (STG) by the STG taskforce constituted by the MoHFW in 2014.

Ms Waranya Rattanavipapong, Researcher HITAP, discussed the scope of HTA beyond medicines and vaccines through sharing experiences from Thailand on how HTA is used to inform policy. She stated that HTA is used in Thailand to examine consequences of health technology and programs to inform policy decisions in many clinical, economic, social and ethical aspects. Ms. Rattanavipapong shared an example of HTA carried out on use of adult diapers, which was not approved for provision in the public system as the budget impact was considered to be too high, though the evaluation of disposable adult diapers was found to be cost effective. Ms. Rattanavipapong emphasized that it is important to contextualize decisions and include concerns beyond cost and health outcomes by taking into account other considerations like health inequalities.

# **Closing Ceremony**

The 3-day 'HTA consultative workshop' was concluded by a closing ceremony presided by Prof Arvind Panagariya, Vice-Chair of the NITI Aayog.

Dr Soumya Swaminathan, Secretary, Department of Health Research shared the future plans for the institutionalization of HTA in India. Dr Swaminathan recognized that the woekshop has been important to highlught that there are many stakeholders in India working in health economics and research with capacity to contribute to this initiative. She stated the need to democratise the HTA process by involving a network or consortium of stakeholders and including patients and civil society in the process. Dr Swaminathan highlighted the need for capacity building in areas of identified gaps and appreciated the support provided by iDSI (International Decision Support Initiative).

"We need to establish a Board, which is seen to have integrity, high ethics, is transparent, and not open to accusations. Keeping open channel of communication between MTAB and MoHFW at level of Centre and State important. Next few years very important for this [MTAB]... If Government sees value in this model it will become great. Success depend on all of you, not on us – we will set up processes to take this forward."

### Dr Soumya Swaminathan, Secretary, Department of Health Research

DR VM Katoch, former Secretary DHR & former DG ICMR shared his views on the institutionalization of HTA. He stated DHR initiated work on this on the recommendation of the 12<sup>th</sup> 5-year plan made by the then Planning Commission. Dr Katoch stated that at that time NICE was found to be an ideal model. He also added that Thailand has developed its learning over 10 years. India now needs to learn from its own experiences and it will take time.

"This HTA fever should not die out and should continue. Compliments to the Government and to Dr Soumya Swaminathan who has worked hard to get this work rolling".

DR VM Katoch, former Secretary DHR & DG ICMR

Three workshop participants were invited to present the stakeholder's perspective. The first participant was Prof. V.R. Muraleedharan from Indian Institute of Technology, Madras.

The question is- what is the role of MTAB. Will this be advisory or something more than that...will there be legislative support? Whatever MTAB is visualised to be - it will be an evolutionary process.. IIT Madras happy to be part of this.

### Prof. V.R. Muraleedharan from Indian Institute of Technology, Madras

Dr. Anindita Bhowmik from the Suvarna Arogya Suraksha Trust, a public health insurance scheme in the State of Karnataka, shared her perspective as a workshop participant. She thanked everyone present for the rich experience and stated

"NICE International and HITAP Thailand have pushed us to think about HTA in a more in depth and detailed manner". Liked the commitment of government and policy makers [towards HTA].

### Dr. Anindita Bhowmik, Suvarna Arogya Suraksha Trust, Karnataka

Dr. Anindita shared that the workshop provided an opportunity to think regarding why HTA should be structured and reiterated that there was no doubt about the need for HTA, but the diversity among Indian States needs to be considered while deciding its structure.

The third participant to share his perspective was Col. V.K. Bhatti, Director Medical Services in the Indian Army. Col Bhatti stated that the workshop had been a very enriching experience. The Army undertakes formal and informal HTA and Officers are trained in HTA in a 4-week course organized by WHO (World health Organization).

"Experience here particularly useful because experts from so many different fields. Have been introduced into formal ways in which to undertake HTA. We have learned about the need to formalize the whole process. This has been set rolling by DHR and ICMR"

#### Col. V.K. Bhatti, Director Medical Services, Indian Army.

Dr Yot Teerawattananon, Founding leader HITAP, Thailand provided concluding remarks about the workshop and outlined the importance of priority setting

"Priority setting holds promise that every family member in India can have access to medical intervention when they need it. No reason for people to worry about whether HTA will be useful – everyone has observed that it will be helpful. No need to worry if it is policy relevant – policies in India are about Universal Health Coverage and Sustainable Development Goals. Don't worry where – that is a need at both central and state level. Don't worry about human resources – HTA is not rocket science. There are capable people here [in India], and international support is available".

#### Dr Yot Teerawattananon, Founding leader HITAP, Thailand

Prof Antony Culyer, Emeritus professor, York University & Chair iDSI (International Decision Support Initiative), gave concluding remarks on behalf of iDSI.

"HTA is a useful tool in elimination of waste in both public and private sector, inside health sector and beyond. Learned about importance of getting the question right. The scope of HTA is itself a matter of choice".

### Prof Antony Culyer, Emeritus professor, York University & Chair iDSI

Prof Culyer spoke in detail about the need for identifying the right stakeholders, and having a process on how to involve them and in which stages. Prof Culyer reiterated the need for transparency, inclusion and deliberation in process of conducting and delivering HTA, and in recognizing the role of quantitative and qualitative evidence and skill mixes in order to do competent health technology appraisals.

Prof Panagariya, Vice-Chairman, NITI Aayog and Chief Guest of the closing ceremony addressed the workshop participants to share his views on the subject.

"What we are trying to do by introducing HTA is extremely important. We can spend crores and crores of rupees but unless we have good assessment, will largely go to waste."

### Prof Panagariya, Vice-Chairman, NITI Aayog



Prof Panagariya spoke in detail about the challenges Indian health system is currently facing ranging from quantity and quality of doctors in the country, regulation of medical education, and inadequate public spending on health due to budget limitations. He stated that health expenditure in absolute terms has risen in the past decade, but not as a proportion of GDP spending. Prof Panagariya shared that in the last decade, the Government has been able to introduce insurance schemes, which is a new concept to India. Prof Panagariya stated that a two-pronged strategy is required to strengthen the Indian health system. The public health system needs to be strengthened by the provision of insurance, infrastructure and equipment, training, and health education. The private health sector has problems of asymmetry of information and unqualified providers, which needs to be addressed.

The workshop was concluded by a vote of thanks to all that participated over the 3 days.

### Annexure I







# Health Technology Assessment (HTA)-Stakeholders' Consultative Workshop

# Monday the July 25, 2016

AGENDA

# <u>Venue:</u> Silver Oak Hall, India Habitat Centre, New Delhi

#### Inaugural Session-9:30–10:40 9:30-9:33 Shri Manoj Pant Welcome Joint Secretary, DHR 9:33-9:38 Opening Dr. Soumya Swaminathan Remarks Secretary, DHR and Director General, ICMR 9:38-9:42 Video Clip **Power of HTA** 9:42-9:47 Address Prof Anthony Culyer, Emeritus professor, York University, University of Toronto & Chair iDSI 9:47-9:52 Address Dr. Phusit Prakongsai, Director, Bureau of International Health, Ministry of Public Health, Thailand 9:52-9:57 Address Dr. Jagdish Prasad **Director General of Health Services** 9:57-10:04 Address Shri BP Sharma Secretary, Department of Health and Family Welfare 10:04-10:14 Address by Smt. Anupriya Patel **Guest of Honour** Hon'ble Minister of State for Health & Family Welfare 10:14-10:24 Address by Chief Sh. Faggan Singh Kulaste Guest Hon'ble Minister of State for Health & Family Welfare 10:24-10:30 Vote of thanks Dr. Rakesh Kumar Sr.DDG, Indian Council of Medical Research TEA BREAK (10:30-11:00) Technical Session-I - 11:00-13:00

### Health Technology Assessment-Sharing experiences Chair: Prof. N. K. Ganguly Co-Chair: Dr. Phusit Prakongsai **Global experience: Using HTA to inform** Prof Anthony Culyer, Emeritus professor, York international priority setting decisions University, University of Toronto & Chair iDSI (10 min) HTA to policy in Thailand Dr. Yot Teerawattananon, Founding leader, HITAP Prof. Bruce Campbell, Former chair NICE Interventional The role of NICE in UK health service policy decisions Procedures and Medical Technologies Advisory Committees. Consultant Surgeon **Current Status of HTA in India** Dr. Ashoo Grover, Scientist 'E', ICMR, India Using HTA for decision-making in South East Mr. Lluis Vinals-Torres, Regional Advisor, Health Asia: Is the environment conducive Financing – WHO-SEARO Questions and Answers (30 min) LUNCH BREAK(1:00 pm-2:00 pm) Technical Session II- 14:00-15:30 Priority-setting for Universal Health Coverage (UHC): Using evidence to inform decision making Chair: Dr. Soumya Swaminathan Co-Chair: Dr. Francoise Cluzeau Moderator: Dr R K Srivastava **Evidence based decision making for UHC** Dr. K.S. Reddy, President, PHFI **Universal Health Coverage and National** Mr. Manoj Jhalani, Joint Secretary and Mission **Health Mission** Director (NHM), Ministry of Health and Family Welfare Dr Sanjay Mehendale, Director, National Data sets for evidence synthesis to inform HTA Institute of Epidemiology, Chennai **Economic Evaluations for HTA** Dr. Ramanan Laxminarayan, PHFI **International Decision Support Initiative:** Dr Kalipso Chalkidou, Founding Director, NICE Support for priority setting in India International and IDSI Universal Health Coverage in Thailand: A Dr. Phusit Prakongsai, Director, Bureau of International Health, Ministry of Public Health, success story Thailand Questions and Answers (30 min) TEA BREAK (15:30-16:00)

<u>Technical Sec</u>	<u>ssion-III - 16:00-17:30</u>	
Stakeholders	s' Perspective on HTA	
Chai	r: Dr. K.K. Talwar	
Co-Chair: Prof Anthony Culyer		
Moderat	or :Dr. Meenu Singh	
HTA- an important tool for allocating	Ms. Vini Mahajan, Principal Secretary Health &	
resources- State perspective	Family welfare, State of Punjab	
Role of HTA in the Indian setting for better	Dr T. Sundararaman, Dean, School of Health	
decisions	Systems Studies, Tata Institute of Social Sciences	
Healthcare Organization Perspective on HTA	Dr. Prem Nair, Director, Amrita Institute of	
	Medical Sciences, Kochi	
NHSRC's HTA program	Dr. Sanjiv Kumar, Executive Director, NHSRC,	
	Delhi	
Standard treatment guidelines: Linking	Dr Francoise Cluzeau, Associate Director, NICE	
evidence-based medicine and HTA in India	International	
Sharing the evidence: Lessons from HITAP's	Ms. Waranya Rattanavipapong, Researcher,	
communication strategies	HITAP, Thailand	
Questions and Answers (30 min)		
	End of Day 1 -	

### <u>Venue:</u> Magnolia Hall, Indian Habitat Centre, New Delhi

### Topic Selection for HTA in India

Objectives:

- To raise awareness on topic selection on HTA
- To develop a protocol for topic selection for HTA in India

### **Outputs:**

- Workshop Report on Topic Selection including results of evaluation
- A draft protocol on topic selection for India (led by NI)
- Survey results to inform Situation Analysis Report (led by NI)

### Schedule:

### Master of Ceremonies (MC):

26 July: Ms. Saudamini Dabak and Ms. Waranya Rattanavipapong 27 July: Ms. Benjarin Santatiwongchai

	Topic Selection for HTA - Day 1 of 2 (26 <sup>th</sup> July, 2016)				
Time	Session	Description	Туре	Person (s) Responsible	
9:00- 10:00 (1 hour)	Importance of topic selection in HTA	<ul> <li>Introduction</li> <li>Why do we need to do HTA for topic selection?</li> <li>Political economy of HTA</li> </ul>	Lectur e	Chair: Dr. V.M. Katoch, Former Secretary (DHR) & DG, ICMR Lead: Dr. Yot Teerawattanano n	
10:00- 12:00 (2 hours)	What would you do? – An exercise on Investment/Disinves tment	<ul> <li>Groups discuss criteria to be used for selecting topics and stakeholders involved. Instructions will be provided in exercise handout (1 hour)</li> <li>Groups present on discussion and rationale (1 hour)</li> </ul>	Group Work	Lead: Ms. Alia Luz Support: NI/HITAP Facilitators	
	·	Lunch			
13:00- 15:00 (2 hours)	Topic Selection process in different settings	<ul> <li>Presentations on approach to HTA topic prioritization in different settings: Thailand, EuroScan</li> <li>Overview of situation in India</li> </ul>	Panel	Chair: Dr. RS Dhaliwal, Head (NCD), ICMR Moderator: Prof. Anthony Culyer Panelists: Ms. Benjarin	

15:00- 17:00 (2 hours)	Group Exercise on applying protocols for topic selection in different countries	<ul> <li>Participants will be divided into two groups: Group I = rank topics using qualitative approach; Group II = rank topics using a quantitative approach</li> </ul>	Group Work	Santatiwongchai Ms. Alia Luz Dr. Jitender Sharma NHSRC Lead: Mr. Songyot Pilasant Support: NI/HITAP Facilitators
17:00- 17:30 (1/2 hour)	Introduction to Multi-Criteria Decision Analysis (MCDA)	<ul> <li>Introduce key concepts of MCDA</li> <li>Q&amp;A</li> </ul>	Lectur e	Dr. Sitaporn Youngkong
	Topic Selectio	n for HTA - Day 2 of 2 (27 <sup>th</sup> Ju	ly, 2016)	
8:30- 11:30 (3 hours)	Brainstorming session for Topic Selection Process in India	<ul> <li>Objective of session is to develop a proposal for topic selection in India</li> <li>Participants will be divided into two groups (1 hour):         <ul> <li>Group I = identifying stakeholders</li> <li>Group II = determining topic selection criteria</li> </ul> </li> </ul>	Group Work	Lead: Dr. Sitaporn Youngkong Support: NI/HITAP Facilitators
11:30- 13:00 (1.5 hour)	What is important after topic selection?	<ul> <li>Panelists will discuss the following (15 mins each):         <ul> <li>Role of communicati on</li> <li>Feedback to research community</li> <li>Implementati on and Funding</li> <li>Experiences</li> </ul> </li> </ul>	Panel	Chair: Dr. Chander Shekhar, Head (ITR & CH), ICMR Lead: Prof. Bruce Campbell Panelists: Ms. Karlena Luz Dr. Yot Teerawattanano n Dr. Laura Downey

		from the UK &		Dr. Ravinder
		India		Singh
13:00-	Windup remarks	Dr. Yot Teerawattananon, Fou	unding Lea	ader HITAP
13:10				

# DHR-ICMR-iDSI Collaborative Health Technology Assessment (HTA)-Stakeholders' Consultative Workshop

# Wednesday, the July 27, 2016

### <u>Venue:</u> Magnolia Hall, India Habitat Centre, New Delhi

#### 13:00 -14:00 13.00-13.05 Shri Manoj Pant Welcome Joint Secretary, DHR 13.05-13.15 **Opening Remarks &** Dr. Soumya Swaminathan **Future Plans** Secretary, DHR and Director General, ICMR 13.15-13.20 Address Dr. V.M. Katoch Former Secy DHR & DG, ICMR 13.20-13.30 Participant's View Participant 1 Participant's View **Participant 2** 13.30-13.35 13.35-13.40 Address Prof Anthony Culyer, Emeritus professor, York University, University of **Toronto & Chair iDSI** 13.40-13.55 Address by Chief Dr. Arvind Panagariya, Guest Vice-Chairman, NITI Aayog Vote of Thanks 13.55-14.00 Dr. Ashoo Grover, Scientist, ICMR

# CLOSING CEREMONY

### Materials:

- Video: "Power of HTA". Link: <u>https://www.youtube.com/watch?v=QnmnyZ14A4w</u>,
- "Price of Life": <u>http://thepriceoflife.net/</u>

### Annexure II

# Delegates who participated in Workshop

Sr. No	Name	Designation/Organisation/Institute

1.	Sh. Faggan Singh Kulaste	Hon'ble Minister of State for Health & Family Welfa
2.	Smt. Anupriya Patel	Hon'ble Minister of State for Health & Family Welfa
3.	Shri BP Sharma	Secretary, Health, Ministry of Health & Family Welfare, Nirman Bhavan, Maulana Azad Road, , New Delhi
4.	Dr Jagdish Prasad	DGHS, Ministry of Health & Family Welfare, Nirman Bhavan, Maulana Azad Road, , New Delhi
5.	Dr. R.K. Srivastava	Former DGHS, New Delhi
6.	Shri Vivek Kumar	Jr. Statistical Officer, Ministry of Health & F.W., Nirman Bhawan, New Delhi
7.	Shri Rajeev Kumar	Director-(NCD/ Coord), Ministry of health & Family Welfare, Nirman Bhavan, New Delhi
8.	Dr Manisha Verma	Director (Media), MOHFW, New Delhi
NI	ГІ Аауод	
9.	Dr. Arvind Panagariya	Vice-Chairman, NITI Aayog, New Delhi
10.	Dr. Kheya Melo Furtado	NITI Aayog, New Delhi
Dep	Dartment of Health Res	search (DHR)
	Dr. Soumya Swaminathan	Secretary, Department of Health Research & Directo
11.	,,	General, Indian Council of Medical Research
11. 12.	Dr. V.M. Katoch	
		General, Indian Council of Medical Research Former Secretary and DG, ICMR
12.	Dr. V.M. Katoch	General, Indian Council of Medical Research Former Secretary and DG, ICMR Joint Secretary, Department of Health Research, Ne Delhi
12. 13.	Dr. V.M. Katoch Shri Manoj Pant	General, Indian Council of Medical Research       Former Secretary and DG, ICMR         Joint Secretary, Department of Health Research, Net Delhi       Joint Secretary, Department of Health Research, Net Delhi

17.	Shri S.N. Sharma	Under Secretary, Department of Health Research, New Delhi
18.	Dr. A. K. Bagga	Scientist , Department of Health Research, New Delhi
19.	Dr. V.P. Singh	Scientist , Department of Health Research, New Delhi
20.	Dr. Babban Jee	Scientist , Department of Health Research, New Delhi
Fore	eign Dignitaries (NICE & I	HITAP)
21.	Dr. Phusit Prakongsai	Health Intervention and Technology Assessment Program (HITAP), Thailand
22.	Dr. Yot Teerawattananon	Health Intervention and Technology Assessment Program (HITAP), Thailand
23.	Ms. Alia Luz	Health Intervention and Technology Assessment Program (HITAP), Thailand
24.	Ms. Benjarin Santatiwongcha	Health Intervention and Technology Assessment Program (HITAP), Thailand
25.	Ms. Karlena Luz	Health Intervention and Technology Assessment Program (HITAP), Thailand
26.	Dr. Sitaporn Youngkong	Health Intervention and Technology Assessment Program (HITAP), Thailand
27.	Mr. Songyot Pilasant	Health Intervention and Technology Assessment Program (HITAP), Thailand
28.	Ms. Waranya Rattanavipapong	Health Intervention and Technology Assessment Program (HITAP), Thailand
29.	Ms. Saudamini Dabak	Health Intervention and Technology Assessment Program (HITAP)
30.	Prof. Anthony Culyer	Emeritus professor, York University, University of Toronto & Chair iDSI, UK
31.	Prof. Bruce Campbell	NICE International, UK
32.	Dr. Kalipso Chalkidou	Director, NICE International, UK
33.	Dr. Francoise Cluzeau	Associate Director - NICE International, National Institute for Health and Care Excellence, UK
34.	Dr. Laura Downey	Technical analyst- NICE International, National Institute for Health and Care Excellence, UK

35.	Dr. Abha Mehndiratta	India Technical Advisor, NICE International
I	nternational Organisa	ations (WHO/World Bank)
36.	Dr. Lluis Vinals Torres	Health Planning and Financing Regional Adviser, Department of Health System Development; WHO Regional Office for South East Asia (SEARO), WHO (SEARO), New Delhi
37.	Dr Madhur Gupta	Technical Officer (Pharmaceuticals), World Health Organization, WHO Country Office for India, New De
38.	Dr. Rajesh Narwal	Technical Officer, WHO India, New Delhi
39.	Dr Somil Nagpal	Senior Health Specialist, Global Practice on Health, Nutrition and Population, The World bank, 70 Lodi Estate, New Delhi, Delhi
40.	Ms. Sheena Chhabra	Senior Health Specialist, Global Practice on Health, Nutrition and Population, The World bank, 70 Lodi Estate, New Delhi
I	ndian Council of Med	lical Research (ICMR) Hqrs.
<b> </b> 41.	ndian Council of Med Prof. N.K. Ganguly	
		ical Research (ICMR) Hqrs.
41.	Prof. N.K. Ganguly	Ical Research (ICMR) Hqrs.         Former Director General, ICMR, New Delhi         Sr. Deputy Director General (A), Indian Council of
41. 42.	Prof. N.K. Ganguly Dr. Rakesh Kumar	Iical Research (ICMR) Hqrs.         Former Director General, ICMR, New Delhi         Sr. Deputy Director General (A), Indian Council of Medical Research, New Delhi         Sr. Financial Advisor, Indian Council of Medical Research, New Delhi
<ul><li>41.</li><li>42.</li><li>43.</li></ul>	Prof. N.K. Ganguly Dr. Rakesh Kumar Ms. Ritu Dhillon	lical Research (ICMR) Hqrs.         Former Director General, ICMR, New Delhi         Sr. Deputy Director General (A), Indian Council of         Medical Research, New Delhi         Sr. Financial Advisor, Indian Council of Medical         Research, New Delhi         Head, Division of ITR & CH, Indian Council of Medical
<ul><li>41.</li><li>42.</li><li>43.</li><li>44.</li></ul>	Prof. N.K. Ganguly Dr. Rakesh Kumar Ms. Ritu Dhillon Dr. Chander Shekhar	lical Research (ICMR) Hqrs.         Former Director General, ICMR, New Delhi         Sr. Deputy Director General (A), Indian Council of Medical Research, New Delhi         Sr. Financial Advisor, Indian Council of Medical Research, New Delhi         Head, Division of ITR & CH, Indian Council of Medical Research, New Delhi         Head, Division of NCD, Indian Council of Medical
<ul> <li>41.</li> <li>42.</li> <li>43.</li> <li>44.</li> <li>45.</li> </ul>	Prof. N.K. GangulyDr. Rakesh KumarMs. Ritu DhillonDr. Chander ShekharDr. R.S. Dhaliwal	lical Research (ICMR) Hqrs.         Former Director General, ICMR, New Delhi         Sr. Deputy Director General (A), Indian Council of Medical Research, New Delhi         Sr. Financial Advisor, Indian Council of Medical Research, New Delhi         Head, Division of ITR & CH, Indian Council of Medical Research, New Delhi         Head, Division of NCD, Indian Council of Medical Research, New Delhi         Head, Division of NCD, Indian Council of Medical Research, New Delhi
<ul> <li>41.</li> <li>42.</li> <li>43.</li> <li>44.</li> <li>45.</li> <li>46.</li> </ul>	Prof. N.K. GangulyDr. Rakesh KumarMs. Ritu DhillonDr. Chander ShekharDr. R.S. DhaliwalDr. Tanvir Kaur	lical Research (ICMR) Hqrs.         Former Director General, ICMR, New Delhi         Sr. Deputy Director General (A), Indian Council of Medical Research, New Delhi         Sr. Financial Advisor, Indian Council of Medical Research, New Delhi         Head, Division of ITR & CH, Indian Council of Medical Research, New Delhi         Head, Division of NCD, Indian Council of Medical Research, New Delhi         Scientist , Indian Council of Medical Research
<ul> <li>41.</li> <li>42.</li> <li>43.</li> <li>44.</li> <li>45.</li> <li>46.</li> <li>47.</li> </ul>	Prof. N.K. GangulyDr. Rakesh KumarMs. Ritu DhillonDr. Chander ShekharDr. R.S. DhaliwalDr. Tanvir KaurDr. Meenakshi Sharma	Iical Research (ICMR) Hqrs.         Former Director General, ICMR, New Delhi         Sr. Deputy Director General (A), Indian Council of Medical Research, New Delhi         Sr. Financial Advisor, Indian Council of Medical Research, New Delhi         Head, Division of ITR & CH, Indian Council of Medical Research, New Delhi         Head, Division of NCD, Indian Council of Medical Research, New Delhi         Scientist , Indian Council of Medical Research         Scientist , Indian Council of Medical Research

51.	Dr. Manju Rahi	Scientist, Indian Council of Medical Research
52.	Dr. Ravinder Singh	Scientist, Indian Council of Medical Research
53.	Dr. Deepika Saraf	Scientist, Indian Council of Medical Research
I	CMR Institutes	
54.	Prof. Arvind Pandey	Director, National Institute of Medical Statistics (NIMS), New Delhi
55.	Dr. Sanjay Mehendale	Director, National Institute of Epidemiology, Chenna
56.	Dr. Ravi Mehrotra	Director, National Institute of Cancer Prevention and Research (NICPR), Noida
57.	Dr. S.L. Hoti	Director, Regional Medical Research Centre (RMRC), Belgaum
58.	Dr. Anju Bansal	Scientist, National Institute of Pathology, New Delh
59.	Dr. Santasabuj Das	Scientist, National Institute of Cholera and Enteric Diseases (NICED), Kolkata
60.	Dr. Ganeshkumar	Scientist , National Institute of Epidemiology (NIE), Chennai
61.	Dr. Roopa Hariprasad	Scientist, National Institute of Cancer Prevention and Research (NICPR), Noida
62.	Dr. Poonam Salotra	Scientist, NIOP, New Delhi
S	States Secretaries/Joi	nt Secy/Mission Directors/Nominees
63.	Ms. Vini Mahajan	Principal Secretary, Health & F.W., Govt. of Punjab, Chandigarh
64.	Dr. Darez Ahmed	Project Director, NHM, Tamil Nadu
65.	Dr. K.K. Talwar	Advisor to Govt. of Punjab, Chandigarh
66.	Dr. Anindita Bhowmik	Suvarna Arogya Suraksha Trust - Bangalore , TTMC Building, "A" Wing, 4th Floor, K H Road, Bangalore
67.	Dr. Deepinder Singh	Deptt. of Health & F.W., Punjab

69.	Dr. Harikumaran Nair	Professor, Department of Radio Diagnosis, Government Medical College, Alappuzha
70.	Dr. Muraly. C.P.	Assistant Professor, Department of Pulmonology, Government Medical College, Thrissur
71.	Dr. Anish. T.S.	Assistant Professor, Department of Community Medicine, Government Medical College, Thiruvananthaouram, Kerala
72.	Dr. K.K. Bhutani	Professor, NIPER, Mohali
73.	Deepak Kumar	Drugs Inspector CDSCO, HQ, FDA Bhawan, Koha Road
74.	V. Soopaj	CDSCO, HQ, New Delhi
75.	Dr. B.S. Rawat	DTMT, New Delhi
76.	Rachna Sharma	National Institute of Public Finance and Policy (NIPFP), New Delhi
77.	Smiriti Sharma	National Institute of Public Finance and Policy (NIPFP), New Delhi
78.	Dr. Reba Chhabra	National Institute of Biological (NIB), Noida
	nstitutes of National Im AIIMS/IIT/NIMHANS/PC	-
79.	Prof. (Dr.) Raj Bahadur	Vice Chancellor, Baba Farid University of Health Sciences, Faridkot, Punjab
80.	Dr. Pratap Tharyan	Professor, South Asian Cochrane Network & Centre, Christian Medical College, Vellore
81.	Dr. Divya Elizabeth Muliyil	Christian Medical College, Vellore
82.	Prof. Muraleedharan V.R.	Professor, Indian Institute of Technology Madras / HEAI, Department of Humanities and Social Sciences, , IIT P.O., Chennai
83.	Prof. Vivekanandan Perumal	IIT (Delhi), Hauz Khas, Delhi
84.	Prof. Amit Mehndiratta,	IIT (Delhi), Hauz Khas, Delhi
85.	Prof. B.N. Gangadhar	Director , National Institute of Mental Health and Neuro Sciences Hospital (NIMHANS), Bangalore

86.	Dr. Shankar Prinja	Associate Professor of Health Economics, School of Public Health, Post Graduate Institute of Medical, Education and Research (PGIMER), Chandigarh
87.	Dr. Meenu Singh	Professor of Paediatrics, Postgraduate Institute of Medical, Education and Research (PGIMER), Chandigarh
88.	Dr. Navneet Dhaliwal	Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh
89.	Dr. N.N. Mathur	Principal, Vardhman Mahavir Medical College, Safdarjung Hospital, New Delhi
90.	Dr. Ashok Deorari	Professor, AIIMS, New Delhi
91.	Dr. Jeeva Sankar	Asstt. Professor, AllMS, New Delhi
92.	Dr. Anu Thukral	Asstt. Professor, AIIMS, New Delhi
93.	Dr. Varsha Mehra	AIIMS, New Delhi
94.	Dr. Prem Nair	Medical Director, Amrita Institute of Medical Sciences (AIMS), AIMS Ponekkara P.O., Kochi, Kerala
95.	Dr. Sanjeev Singh	Professor, Amrita Institute of Medical Sciences (AIMS), AIMS Ponekkara P.O., Kochi, Kerala
96.	Dr.(Prof.) A. K. Gadpayle	Medical Superintendent & Director, Post Graduate Institute of Medical Education and Research (New Delhi), Dr Ram Manohar Lohia Medical College, New Delhi
97.	Dr. Veena	RML Hospital, New Delhi
98.	Dr. V. Raman Kutty	Professor, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical (SCTIMST), Thiruvananthapuram
99.	Dr. T. Sundararaman	Dean, School of Health Systems Studies, TATA Institute of Social Sciences, , V.N. Purav Marg, Deonar, , Mumbai
100.	Prof Kanchan Mukherjee	Professor and Chairperson, Centre for Health Policy, Planning and Management, School of Health Systems Studies, TATA Institute of Social Sciences, V.N. Purav Marg, Deonar, Mumbai 400088
101.	Dr. Sanjiv Kumar	Executive Director, National Health Systems Resource Centre, New Delhi

102.	Dr. Jitender Sharma	NHSRC, New Delhi
103.	Dr. Satish Kumar	National Health Systems Resource Centre, New Delhi
104.	Shri Manoj Kumar Singh	National Health Systems Resource Centre, New Delhi
105.	Ms. Jyoti Jagtap	National Health Systems Resource Centre, New Delhi
106.	Ms. Shikha Yadav	National Health Systems Resource Centre, New Delhi
Α	Armed Forces	
107.	Lt. Gen Velu Nair	(Army), DGAFMS, New Delhi
108.	Maj. Gen. JKS Parihar	Addl. DGAFMS, New Delhi
109.	Lt. Col. Ranjeesh Jha	(Army), New Delhi
110.	Gp. Capt R. Bahadur	DGMS (Army), New Delhi
111.	Col JS Murli	O/o DGMS (Army) Delhi
112.	Col. V.K. Bhatti	Director Medical Services (Health), R.No.1 O/o DGMS Army 'L' Block, New Delhi
113.	Lt. Col. Reema Mukherjee	ADH HQ Delhi Area
114.	Lt. Col. T.K. Gupta	Army, DGMS, New Delhi
C	DST/DBT/DRDO/JNU	
115.	Dr. Bindu Dey	Secretary, Technology Development Board, New Delh
116.	Ms. Sonia Gandhi	BIRAC, New Delhi
117.	Dr. Rajib Das Gupta	Prof. Jawahar Lal Nehru University (JNU), New Delhi
NG	Os (BMGF/PHFI/Wish e	etc.)
118.	Ms. Mallika Ahluwalia	Senior Program Officer, BMGF India Office, Bill & Melinda Gates Foundation, Capital Court Building, 3rd floor, Olof Palme Marg,, Munirka, New Delhi
119.	Prof. K. Srinath Reddy	President, Public Health Foundation of India (PHFI), Gurgaon

120.	Dr. Ramanan Laxminarayana	Vice-President, Public Health Foundation of India
		(PHFI), Gurgaon
121.	Dr. Kabir Sheikh	Senior Research Scientist and Adjunct Associate
		Professor, Public Health Foundation of India (PHFI),
		Gurgaon
122.	Dr. Ajay Vamedar	Public Health Foundation of India (PHFI), Gurgaon
122	Du Caufuai	D/a Dublic Haalth Foundation of India (DUFI) Compose
123.	Dr. Sarfraj	P/s , Public Health Foundation of India (PHFI), Gurgaon
124.	Ms. Shilpa Karvande	Sr. Researcher, The Foundation for Medical Research.,
		Dr. Kantilal J. Sheth Memorial Building,, 84-A, R.G.
		Thadani Marg,, Worli, Mumbai
125.	Ms. Himani Sethi	WISH Foundation
126.	Ms. Krithika Raghavan	WISH Foundation
Р	rivate Sector	
•		
127.	Mr. Anirudh Sen	FICCI (Industry), 1, Federation House, Tansen Marg, ,
		New Delhi
128.	Shri Arif Fahim	Chair, AdvaMed India's Health Economics and
		Reimbursement Sub-Group, at St. Jude Medical, St.
		Jude Medical, Okhla Industrial Area, Delhi
C	Others	
129.	Mr. Bharat Asthana	
130.	Dr. Nishant Jaiswal	
131.	Dr. Kiran Kumari	
131.		
132.	Navelsanery Parmar	
133.	Dr. Anil Chauhan	
134.	Mr. Sandeep Parchure	
134.		
135.	Ashok B. Sharma	
136.	Gargi M.	
L		

137.	Ajay Kumar Gupta	
138.	Mohd. Josh.	
139.	Shyama Nagrajan	
140.	Sudhir Zuishi	
141.	Mr. V.P. Chopra, New Delhi	

ICMR Organizing Committee and Scientific Staff		
1.	Dr. Vijay Kumar	Head, Division of BMS, Indian Council of Medical Research, New Delhi
2.	Dr. V. K. Srivastava	Head, Division of P&I, Indian Council of Medical Research, New Delhi
3.	Dr. Neeraj Tandon	Head, Division of MPU, Indian Council of Medical Research, New Delhi
4.	Dr. R.S. Sharma	Head, Division of RBMH, Indian Council of Medical Research, New Delhi
5.	Dr. N.C. Jain	Head, Division of HRD, Indian Council of Medical Research, New Delhi
6.	Dr. A. S. Kundu	Head, Division of SBR, Indian Council of Medical Research, New Delhi
7.	Dr. Bontha V. Babu	Head, Division of HSR, Indian Council of Medical Research, New Delhi
8.	Dr. Harpreet Sandhu	Division of IHD, Indian Council of Medical Research, New Delhi
9.	Dr. D. K. Shukla	Scientist, Indian Council of Medical Research
10.	Dr. Nomita Chandhiok	Scientist , Indian Council of Medical Research, New Delhi
11.	Dr Anju Sharma	Scientist , Indian Council of Medical Research, New Delhi
12.	Dr. Rajani Kaul	Scientist , Indian Council of Medical Research, New Delhi

13.	Dr. A.K. Mathur	Scientist , Indian Council of Medical Research, New Delhi
14.	Dr. Tripti Khanna	Scientist , Indian Council of Medical Research, New Delhi
15.	Mr. B. S. Dhillon	Scientist , Indian Council of Medical Research, New Delhi
16,	Dr. Reeta Rasaily	Scientist , Indian Council of Medical Research, New Delhi
17.	Dr. Harpreet Kaur	Scientist , Indian Council of Medical Research
18.	Dr. Geeta Jotwani	Scientist , Indian Council of Medical Research, New Delhi
19.	Dr. Shalini Singh	Scientist, Indian Council of Medical Research, New Delhi
20.	Mrs. Sandhya Diwakar	Consultant, Division of HRD, Indian Council of Medical Research, New Delhi
21.	Dr. Nivedita Gupta	Scientist, Indian Council of Medical Research, New Delhi
22.	Dr. Manjula Singh	Scientist , Indian Council of Medical Research, New Delhi
23.	Dr. Neeta Kumar	Scientist , Indian Council of Medical Research, New Delhi
24.	Dr. Geetika Yadav	Scientist , Indian Council of Medical Research, New Delhi

ICN	ICMR Supporting Staff		
1.	Smt. Agnes xalxo	Asstt. Director General, Indian Council of Medical Research, New Delhi	
2.	Sh. B. P. Singh	Sr. Admn. Officer, Indian Council of Medical Research, New Delhi	
3.	Mr. R.K. Sharma	Consultant (F&A), Indian Council of Medical Research, New Delhi	
4.	Shri R. K. Tandon	Accounts Officer, Indian Council of Medical Research, New Delhi	
5.	Mr. R.K. Nimje	Accounts Officer, Indian Council of Medical Research, New Delhi	

6.	Shri P.K. Chawla	Admn. Officer, Indian Council of Medical Research, New Delhi
7.	Mrs. Manjit Kaur	Admn. Officer, Indian Council of Medical Research, New Delhi
8.	Shri Jagan Lal	Admn. Officer, Indian Council of Medical Research, New Delhi
9.	Mr. Sardar Singh	D.D.O., Indian Council of Medical Research, New Delhi
10.	Mrs. Sunita Pahuja	Section Officer, Indian Council of Medical Research, New Delhi
11.	Mr. Harish Kumar	Section Officer, Indian Council of Medical Research, New Delhi
12.	Mr. K.S. Bawa	Section Officer, Indian Council of Medical Research, New Delhi
13.	Mr. T.D. Joshi	Cashier, Indian Council of Medical Research, New Delhi
14.	Sh. Anil Lekhera	Assistant, Indian Council of Medical Research, New Delhi
15.	Mr. Rakesh Dhuliya	Assistant, Indian Council of Medical Research, New Delhi
16.	Ms. Seema Verma	Technical Asstt., Indian Council of Medical Research, New Delhi
17.	Mr. Raju Paunikar	Assistant, Indian Council of Medical Research, New Delhi
18.	Mr. Mahipal Singh	Assistant, Indian Council of Medical Research, New Delhi
19.	Mrs. Savitri Devi	Indian Council of Medical Research, New Delhi
20.	Ms. Apeksha Yadav	Research Assistant, Indian Council of Medical Research, New Delhi
21.	Ms. Apurva	Research Asstt., Indian Council of Medical Research, New Delhi
22.	Ms. Mamta Behl	Project Asstt., Indian Council of Medical Research, New Delhi
23.	Ms. Ankita	Project Asstt., Indian Council of Medical Research, New Delhi
24.	Mr. Mohan Kant	Indian Council of Medical Research, New Delhi

25.	Sh. Anil Kumar	Indian Council of Medical Research, New Delhi
26.	Mr. Deepak Paliwal	Indian Council of Medical Research
27.	Mr. Rohit Puri	Finance Manager, Deptt. of Health Research, New Delhi

# Biographic details

Sh. Nadda is Union Cabinet Health Minister, Bharatiya Janata Party (BJP) National General Secretary and a Rajya Sabha MP from Himachal Pradesh. Sh. Jagat Prakash Nadda (JP Nadda) is known as a master strategist in his party. He was also measured as one of the strongest candidates for the post of BJP President. He is considered as a quintessential organisational man and has been instrumental in several major decisions of the party. Born in Patna on 2nd December, 1960, Nadda entered politics in the year 1975 when he joined the then ongoing Sampurna Kranti (total revolution) movement started by Jayaprakash Narayan (JP) against the autocratic rule of the then prime minister Indira Gandhi. Sh. Nadda later joined Akhil Bharatiya Vidyarthi Parishad (ABVP), the youth wing of Bharatiya Janata Party, while he was studying in Patna University and entered student politics. His father NL Nadda was Vice Chancellor of Patna University. On a ticket of the ABVP, he won election as Secretary, Patna university students union in 1977. Simultaneously, he also got actively involved in the day-to-day workings of ABVP and worked on several positions. After graduating from the Patna University, Nadda completed his Bachelor of Laws (LL.B) degree from the Himachal University. Nadda has been a sports enthusiast also and during his school days, he got a chance to represent Bihar in a swimming championship held at Delhi. He has an illustrious career in politics.

### Shri Faggan Singh Kulaste

Sh. Faggan Singh Kulaste (born 18 May 1959) is Minister of Health and Family Welfare and a member of the 16th Lok Sabha (2014-2019). He represents the Mandla constituency of Madhya Pradesh and is a member of the Bharatiya Janata Party (BJP) political party. He was minister of state in Vajpayee ministry from 1999. He represented Mandla Lok Sabha seat from 1996 to 2009. After losing in 2009 to Basori Singh Masram of Congress, he was elected to Rajya Sabha. He regained the seat in 2014, defeating his Congress rival Omkar Markam. Shri Faggan Singh Kulaste was bron on 18/05/1959 in Barbati, Distt. Mandla (Madhya Pradesh) and has studied M.A., B.Ed., LL.B. He is Agriculturist, Teacher, Political and Social Worker. Earlier, he was elected as Member, Madhya Pradesh Legislative Assembly Member, in 1990-92. He was elected to Eleventh Lok Sabha Lok Sabha Member, Twelfth Lok Sabha (second term), Thirteenth Lok Sabha (third term), Fourteenth Lok Sabha (fourth term). In 2012, he was Member, Committee on Urban Development and currently Minister of State for health and Family Welfare.

### Smt. Anupriya Patel

Smt. Anupriya Patel (born April 28, 1981 in Kanpur, Uttar Pradesh) based in the state of Uttar Pradesh. She is currently the Minister of State in the Ministry of Health and Family Welfare, Government of India. She was elected to the Lok Sabha, of the Parliament of India from the constituency of Mirzapur in the 2014 Indian general election. She was previously

elected as a Member of the Legislative Assembly for the Rohaniya constituency of the Legislature of Uttar Pradesh in Varanasi, where she had fought a campaign in alliance with the Peace Party of India and Bundelkhand Congress in the Uttar Pradesh legislative assembly election, 2012. Smt. Anupriya Patel is the daughter of Sone Lal Patel, who founded the Apna Dal political party that is based in Uttar Pradesh. She was educated at Lady Shri Ram College for Women, Amity University and Kanpur University. She has a Master's degrees in Psychology and also Masters in Business Administration (MBA), and has taught at Amity. She was general secretary of Apna Dal, twelve days after she had married. Her mother, Krishna Patel, is President of the party. In the 2014 general election, the party campaigned in alliance with the Bharatiya Janata Party, led by Narendra Modi.

### Dr Soumya Swaminthan

Dr. Soumya Swaminathan, MD, who has taken over as Director General, ICMR & Secretary, Department of Health Research (Ministry of Health & Family Welfare) on 17th August, 2015, brings with her vast experience in health research and research administration. Prior to this assignment, Dr. Swaminathan was Director, National Institute for Research in Tuberculosis (NIRT) in Chennai since 2012. After completing her MBBS from AFMC, Pune and MD in Pediatrics from AIIMS, New Delhi, further training included a Fellowship in Neonatology and Pediatric Pulmonology at the Children's Hospital of Los Angeles, University of Southern California, USA and a Research Fellowship in the Dept. of Pediatric Respiratory Diseases, University of Leicester, UK. She joined the Tuberculosis Research Centre, Chennai in 1992 and has spent the past 23 years in health research. Her research interests include pediatric and adult tuberculosis, epidemiology and pathogenesis, the role of nutrition and HIVassociated TB. She also served for 2 years as Coordinator, Neglected Tropical Diseases at TDR. She holds many professional memberships such as International Union Against Tuberculosis and Lung Diseases (Chair, HIV Section 2009-11); Member, International Scientific Advisory Expert Group for the All-Party Parliamentary Group on Global Tuberculosis (APPG TB), UK; and Member, Third World Organization of Women Scientists. She also serves as a Member, UNAIDS Expert Panel and Member, Scientific and Technical Advisory Group, WHO Stop TB department. In addition, she serves on many national committees of the health ministry, DBT, DST and national institutes like AIIMS and Indian Institute of Science. She has the distinction of being awarded the President's Gold Medal at the undergraduate level for the best all round outgoing student of the year 1980. She was awarded ICMR Kshanika oration award by ICMR in 2008, Tamil Nadu Science and technology award in 2012 and is a Fellow of three of India's science academies. Through DHR and the network of ICMR institutes, Dr. Swaminathan looks forward to focusing on key health priorities and generating scientific evidence for achieving public health impact. Further, she will work towards expanding the scope and quality of biomedical research being conducted in our medical colleges.

### Shri Manoj Pant

A post graduate in Physics from Indian Institute of Technology Roorkee (India), Mr Pant started his professional career as a faculty member in The Doon School Dehradun in 1980. He joined Indian Forest Service in 1986 and served in different wings of Forest Department

and other departments in the State of Jammu & Kashmir till 2010. He joined the Ministry of Health and Family Welfare, Govt. of India in 2010 and dealt with Public Health matters, Public Health Institutions, Emergency Medical Relief, Government Vaccine Manufacturing Units, Public Sector Undertakings of the Ministry and Vigilance matters. He worked as Chief Vigilance Officer in Bharat Petroleum Corporation Limited, a Fortune 500 Public Sector Enterprise of Ministry of Petroleum & Natural Gas, Government of India from January 2013 till September 2015. He is presently posted as Joint Secretary to Government of India in the Department of Health Research, Ministry of Health and Family welfare. In his present assignment, he is monitoring implementation of various health research schemes of Government of India across the country. The schemes include strengthening of health research infrastructure in Medical Colleges, establishment of Health Research Stations in collaboration with state Governments and providing financial assistance to projects in the field of Health and Bio-medical Research. He is also looking after the activities of Indian Council of Medical Research, a premier research institute of the country in the field of Biomedical Research. He is also involved in drafting and prioritising policy matters pertaining to the field of Health and Bio-medical Research in the country.

### **Dr Jagdish Prasad**

He has been a Junior Resident Surgery at AIIMS, New Delhi from January 1978 to December 1980; Registrar, AIIMS, New Delhi from April 1981 to December 1982; Lecturer/Registrar (CTVS) at King Edward Memorial Hospital & Seth G.S. Medical College, Bombay; Lecturer Cardio – Thoracic & Vascular: IGIMS, Patna from July to Sept 1985; Specialist Grade II and Head of CTVS Department at Safdarjung Hospital New Delhi from October 1985 to September 1988; Specialist Grade I and Head of CTVS Department at Safdarjung Hospital, New Delhi from September 1988 to November 1992; Consultant & Head of Cardiac Surgery at Safdarjung Hospital, New Delhi from September 1992 to June 2007; Additional Director General of Health Services, Govt. of India & Professor and Chief of Cardiac Surgery from Oct 2004 till 13 July 2011; Special Director General of Health Services Govt. of India, M/o Health & Family Welfare from 14 July 2011 till 30 November 2011; Director General of Health, Services Govt. of India, M/o Health & F.W. & Professor of cardiac surgery, VMMC, Safdarjung Hospital, New Delhi since 01/12/2011. Dr Prasad was the Chief of Cardiac Surgery at Safdarjung Hospital, New Delhi from October, 1985 till date; Medical Superintendent at Safdarjung Hospital & Vardhman Medical college, New Delhi from February, 2001 to Sept., 2003; Additional Director General at VMMC and Safdarjung Hospital of Health Services, from October, 2004 to September 2009; Principal & Medical Superintendent, Special Director General of Health Services, Govt. Of India, Ministry of Health & Family Welfare from 14th July, 2011 to 30th Nov., 2011; Director General of Health Services, Govt of India, Ministry of Health & Family Welfare from 1st December, 2011. In the year 1998, Dr Prasad was awarded "PADMA SHREE" by Government of India in recognition of the pioneer work done for establishing and developing of the Specialty of Cardio-Thoracic & Vascular at Safdarjung Hospital, New Delhi and economizing the cost of cardiac surgery.

### Shri BP Shrma

Mr Bhanu Pratap Sharma is a Senior IAS officer, who was appointed as Health Secretary in the Ministry of Health and Family Welfare in February, 2015. Mr Sharma, a 1981 batch IAS officer of Bihar cadre, was earlier establishment officer and special secretary in the Department of Personnel and Training (DoPT). He has achieved many milestones in his career as successful bureaucrat. He has driven the Immunization campaign very successfully. He has been instrumental in many national programmes and developed policies for the betterment of Indian populations.

### Dr Phusit Prakongsai

Dr. Phusit Prakongsai earned his PhD in Public Health and Policy from the London School of Hygiene and Tropical Medicine (LSHTM), United Kingdom in 2008, Medical Doctor Degree from Mahidol University in 1988, and a Certificate in Preventive Medicine from the Thai Medical Council in 1993. He has 10 years of field experience in public health and health service management in three district hospitals located in rural areas of Thailand from 1988 to 1998. Dr Phusit served as the principal investigator and co-investigator of several research projects related to health systems and policy, health insurance and financing, universal health coverage, and global health development at the International Health Policy Program (IHPP), Bureau of Policy and Strategy, Ministry of Public Health (MOPH) of Thailand from 1999 to present. He received the WHO long-term fellowship for pursuing his PhD study in London in 2002. He was appointed to be the director of International Health Policy Program (IHPP), MOPH, from October 2010 to December 2014. Subsequently he was appointed to be the Director of Bureau of International Health (BIH), MOPH, in October 2014, and has since served in the International Health Cooperation of Thai MOPH.

### Prof. N. K. Ganguly

Nirmal Kumar Ganguly, M.D was formerly a Distinguished Biotechnology Research Professor, Department of Biotechnology, Government of India. He was formerly President of the Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), as well as that of the Asian Institute of Public Health, Bhubaneswar, Odisha. He is the former Director General, Indian Council of Medical Research (ICMR), New Delhi; former Director, PGIMER (Chandigarh); and former Director, National Institute of Biologicals (Noida).Prof. Ganguly has published more than 775 research papers and has supervised 130 Ph.D theses as Supervisor/Co-Supervisor. Prof. Ganguly is Fellow o many national and International academies. He is Member of a number of important Advisory Groups. He is also advisor to Regional Director SEARO and is a member of Regional Task Force on Diseases Targeted for Elimination. He has been appointed as a member of Global Work Group of the Advisory Committee to the Director (ACD) of Center for Disease Control (CDC), Atlanta, USA. He is also selected as Global Infectious Disease External Advisory Board, Sanofi Pasteur, June 2015. In 2016 he has selected by Regional Director SEARO as Member Advisory Board of WHO South-East Asia Journal of Public Health (SEAJPH). In 2015 he has been selected for the award of Helmholtz International Fellow by Helmholtz Center for Infection Research, Germany for significant contribution to the field of infectious diseases. He has received 118 Awards, including 7 International and 111 National Awards. He has been honoured with the prestigious Padma Bhushan Award by Her Excellency, the President of India on 26<sup>th</sup> January, 2008 in the field of "Medicine".

### **Prof Anthony Culyer**

Tony Culyer is emeritus professor of economics at York (England); Senior Fellow at the Institute of Health Policy, Management and Evaluation at the University of Toronto; Adjunct Scientist, Institute for Work and Health, Toronto; and Distinguished Visiting Scholar, University of the Witwatersrand, South Africa. He was the founding Organiser of the UK Health Economists' Study Group – a model much copied around the world. For 33 years he was the founding co-editor, with Joe Newhouse, of Journal of Health Economics. He was founding Vice Chair of the National Institute for Health and Care Excellence (NICE) until 2003 and still chairs NICE International's Advisory Group. He is Editor-in-Chief of the on-line Encyclopaedia of Health Economics. He was responsible for the 1994 report that led to the redesign of the NHS's R&D system. He has been a visiting professor in universities in Australia, Canada, Germany, New Zealand and South Africa and has an honorary doctorate from The Swedish School of Economics. For many years he was chair of the Department of Economics & Related Studies at York (England) and, for six of them, was also pro- or deputy vice-chancellor. In Ontario, Canada, he was Chief Scientist at the Institute for Work and Health, Chair of the Workplace Safety and Insurance Board's Research Council, and Ontario Research Chair in Health Policy and System Design at the University of Toronto. He helped to found the Citizens' Council and the Occupational Cancer Research Centre based in Toronto. He has published widely, mostly in health economics. In 2015 he was Hall Laureate in Canada, a recipient of the William B Graham Prize (The Baxter International Foundation) for health services research and of ISPOR's Avedis Donabedian Outcomes Research Lifetime Achievement Award. The third edition of his The Dictionary of Health Economics came out in 2014. A collection of his non-technical essays called The Humble Economist is available online free of charge. His (with Thai colleagues) most recent (2016) book is a history of HITAP: the "Thai NICE".

### Dr Yot Terrawattananon

Yot Teerawattananon is a founding leader of the Health Intervention and Technology Assessment Program (HITAP), which is a semi-autonomous research institute of Thailand's Ministry of Public Health. The works of HITAP have been used to inform policy decisions regarding the adoption of medicines, medical devices, health promotion and disease prevention programmes under the Universal Health Coverage Scheme and the national pharmaceutical reimbursement list, the National List of Essential Medicines.DrYot has gone on to provide technical advice to many national and international agencies such as: the Gates Foundation, WHO, World Bank, Asian Development Bank and the Centre for Global Development (CGD), giving him a broad knowledge of key issues in global health. He is also one of the founders of HTAsiaLink, a regional networks comprising of governmental health technology assessment agencies in South Korea, Japan, China, Taiwan, Malaysia, Singapore, Philippines, Vietnam, Bhutan and Thailand.

### **Prof Bruce Campbell**

Bruce Campbell is Honorary Professor at the University of Exeter Medical School and Vascular Consultant at the Royal Devon and Exeter Hospital. He is a Non-Executive Director of the Medicines and Healthcare products Regulatory Agency (MHRA). In the area of HTA, he was a member, then Chair (1996-2000) of the Development and Evaluation Committee for the South of England – one of four regional UK organisations set up to address the challenge of assessing healthcare interventions, from which NICE took over in 2000. He then joined the Technology Appraisals Committee of NICE in 2001. He led development of the NICE Interventional Procedures Programme, and chaired the NICE Advisory Committee on interventional procedures 2002-15, producing over 500 guidances for the UK National Health Services (NHS). He became the inaugural Chair of the NICE Medical Technologies Advisory Committee in 2009, identifying and assessing new medical devices and diagnostics for use in the NHS: he retired from that, too, at the end of 2015. He chaired the Therapeutic Procedures Panel of the UK Health Technology Assessment Programme from 2000-8, prioritising all non-pharmacological interventions for research funding. He is a member of the group which devised and publishes on the IDEAL system for evaluation of new procedures, which is now being adapted for devices, in liaison with the FDA. Bruce Campbell was Consultant Vascular Surgeon in Exeter 1986-2015 and continues to hold an Honorary Consultant appointment (now active clinically in private practice only). He has published extensively on surgical subjects, clinical services and aspects of health technology assessment. He has been a Hunterian Professor of the Royal College of Surgeons of England and has been awarded the Royal College's College's Hallet Prize and its Kinmonth Medal. He established and continues to edit the Technical Section of the Royal College's Annals journal. Was given a Lifetime Achievement Award by the Vascular Society of Great Britain and Ireland in 2014.

### **Dr Ashoo Grover**

Born 25<sup>th</sup> May, 1970, MBBS-1995 (MD University, Rohtak), M.D. 2000 (PGIMER, Chandigarh); International Fellow at Nabraska Medical University, USA (2010-11); other specialized trainings at NICE, London, UK; HITAP, Bangkok, Thailand . Dr Ashoo Joined Indian Council of Medical Research (ICMR) as Senior Research Officer in 2005 in Division of Non-Communicable Diseases and looking after the area of Oral Health, Neurological Sciences and Cardiovascular Diseases, Special programme for Medical Colleges for Research Methodology Courses, Establishment of Multidisciplinary Research Units in Govt. medical colleges, Model rural Health Research Units in 15 States in India, mechanisms for Health Technology Assessment at DHR, MOHFW. Dr Ashoo is currently working as Scientist 'E' (Medical) at ICMR. She started looking after the Department of Health Research activities since 2008

Special programme for medical colleges to develop research projects under Research Methodology Cell of ICMR under my supervision, Accreditation of Health Research Institutions, Knowledge Management Policy for Health Research – Service Education and Research. She has contributed about 50 research papers in Indian , other foreign journals, prepared 12 reports of various conferences/workshop.

### **Dr Lluis Vinals-Torres**

Lluis Vinals Tores has extensive experience at different levels of health systems, including facility, district, provincial and national, in both low and middle income countries, having worked also in post conflict environments.He also has wide experience with different aid actors, including multilateral institutions (EU, UNDP, UNICEF, WHO and IOM), bilateral (NORAD, FINNIDA, Irish Aid, GIZ, USAID and AECID), Government agencies (MoH Mozambique, MoF Mozambique, MoH Angola, DoH Philippines), social health insurance institutions (Philhealth), consultancy firms (HLSP – Mott Macdonald, Oxford Policy Management, Abt Associates, Techassist, Eductrade, ICD, CESO-CI), NGOs (Medicus Mundi, CIC and HAI) and academic institutions (UAN and DAP). Mr Vinals Tores specialties include the following: Planning at policy level, Social Health Insurance reforms, operational planning, health financing analytical tools, public finance management reforms, health financing related mechanisms; aid-effectiveness and donor coordination and institutional capacity building.

### Dr Francoise Cluzeau

Francoise Cluzeau has strategic oversight of the International Decision Support Inititiative (iDSI) programme. She leads on several projects related to clinical guidelines, and quality standards worldwide, including in India, Vietnam, Ghana, Thailand, Ghana and Sri Lanka. She has worked with the Ministry of Health in Turkey, Georgia, Brazil, China, Kenya and Tunisia in the context of their Quality Improvement Programme. She joined NICE in 2002 as the technical Adviser responsible for developing the NICE Guidelines' methods. She led the international AGREE collaboration of 19 countries that originally developed the AGREE Instrument. A psychology graduate by training, she holds a masters' degree in medical demography from the London School of Hygiene and Tropical Medicine and a doctorate in Health Services Research from the University of London. She holds a visiting Senior Lecturer at King's College London.

# Dr R K Srivastava

Dr. R K Srivastava MBBS - (1967); MS (Ortho - 1975); DNB - PMR is an eminent expert in Orthopedics and Rehabilitation in India. During his career span of 44 years he has occupied different positions of eminence like Specialist in Safdarjung Hospital, Delhi; Professor in VMMC, Delhi; Medical Superintendent- Safdarjung Hospital; Director General Health Services in Ministry of Health & Family Welfare, Gol; Chairman- Board of Governor in Medical Council of India and Senior Policy Analyst in NIHFW. In addition he has also served as Advisor to DG, ICMR; Senior Advisor, WISH Foundation, Chairman of Specialty Board of National Board of Examination; Member – Medical Technology Assessment Board and various other national level advisory positions. During his long career he was instrumental in advising Ministry of Health & Family Welfare, Gol on various issues pertaining to National Health Policy, plans, programs and other related items. He provided inspirational leadership in 500 + senior public health officer of GoI; lead 14 national programme on various communicable and non-communicable diseases; provided technical direction for training activity through 360 + medical collages of the country. He has also represented health ministry in all international technical meetings in WHO, UNICEF and various professional bodies both in India and abroad. He interacted with Global fund, World Bank, Bill& Melinda

Gates foundation, DFID and USAID etc for mobilizing technical as well as financial support for the priority areas of public health in India. As a Director General he administered Directorate of Health Services with around 300 hospitals/ public health institution spread over the country and provided technical guidance for ensuring sustainable growth of these institutions. He was the chairperson for producing health sector proposal for communicable and non-communicable diseases for 12<sup>th</sup> plan period (2012- 2017) for the country. He had to interact regularly with secretaries, ministers, parliamentary committees, planning commission, foreign delegation, etc for planning and organization of responsible health care services and related R&D. During his tenure he handled difficult public health situations like, Avian influenza, H1N1 pandemic and various outbreaks of communicable diseases. During his career he was awarded with awards and honors and produced large number of research paper and policy document.

### Dr KS Reddy

Prof. K. Srinath Reddy is President, Public Health Foundation of India (PHFI) and formerly headed the Department of Cardiology at All India Institute of Medical Sciences. He served as the First Bernard Lown Visiting Professor of Cardiovascular Health at the Harvard School of Public Health (2009-13). He is presently an Adjunct Professor at Harvard and Emory & Honorary Professor of Medicine at the University of Sydney. He has served on many WHO expert panels & has been the President of the World Heart Federation (2013-14). He recently chaired the High Level Expert Group on Universal Health Coverage, for the Planning Commission of India. Prof. Reddy is a member of the Leadership Council of the Sustainable Development Solutions Network, established to assist the United Nations in developing the post-2015 goals and chairs the Thematic Group on Health in the SDSN. Prof. Reddy is a member of the Global Panel on Agriculture and Food Systems for Nutrition. He has published more than 400 scientific papers. His several honours include WHO Director General's Award and Luther Terry Medal of American Cancer Society for Outstanding contributions to global tobacco control and the Queen Elizabeth medal for health promotion.

### Mr Manoj Jhalani

Mr Jhalani holds an MBA in Public Service from the University of Birmingham,U.K. with distinction, and a B. Tech. in Electrical Engineering from I.I.T., Kanpur. He is an MP cadre IAS officer of 1987 batch. He has had an extremely rich and wide experience in leading, coordinating, and monitoring the design and implementation of policies and programmes of social and economic development at national, state, district and sub-district level. He is presently handling the desk of Joint Secretary (Policy) in the MOHFW and oversees the implementation of Ministry's flagship programme of National Health Mission (NHM) and is the nodal officer for UHC in the Ministry.

# Dr. Ravinder Singh

Dr. Ravinder Singh, a medical graduate (M.B.B.S., M.C.H., M.C.A., Ph.D.) has been trained in public health and medical research. Currently, I am working as Scientist, Division of Non-Communicable Diseases, Indian Council of Medical Research, New Delhi. I am also a Visiting

Faculty with Khon Kaen University, Khon Kaen, Thailand; World Without Anger, Kathmandu, Nepal; National Institute of Epidemiology (NIE), Chennai; National Institute of Social Defence (NISD), New Delhi; Anna Foundation, New Delhi; SRM University, Chennai; Gautam Budhha University (GBU), Greater NOIDA; Satya College of Engineering and Technology, Palwal, Haryana; RC Institute of Management, Ghaziabad, UP. I am Chairperson, Ethics Committee, Sudha Rastogi Dental College, Faridabad (Haryana), Member, Ethic Committee, National Institute of Mentally Handicapped, Hyderabad (Telanagana), Member, Ethic Committee, Padmashree D.Y. Patil University, Pune (maharashtra). I was awarded my masters' and doctorate degree by Jawaharlal Nehru University, New Delhi. My thesis was on "Perceived Stress and Coping Strategies among Adolescents". Presently, I am also working on establishment of Medical Technology Assessment Board under Department of Health Research, Ministry of Health and Family Welfare, Government of India. I am also looking after Multi-disciplinary Research Units. I have worked on the various task force studies on functional status of older persons, suicide behaviour, urban mental health, impact of Gujarat Earthquake and Impact of Tsunami in Tamil Nadu. I also worked on the drug abuse among the HIV/AIDS patients. I was instrumental in initiating the project on Surveillance of Non-Communicable Diseases in India. In addition to above studies, I was involved in the research on oral health, gastroenterology and mental health. I am member of Executive Council of Rehabilitation Council of India and Expert on Research Scheme of Department of Empowerment of Persons with Disability, Ministry of Social Justice and Empowerment. I have prepared a status paper on the Common Research Agenda for the South Asia Association for Regional Cooperation (SAARC) countries, which was submitted to the SAARC Meet and Alternative Strategies for the Care of Older Persons for the International Conference at Tirupati, Tamil Nadu. My major contribution to health research is on psychological effects of disasters including Latur Earthquake, Bhuj Earthquake and Tamil Nadu Tsunami. I have presented papers in major conference across India. I have published papers in high impacted journals and published reports on mental health profile in India, drug abuse and HIV/AIDS. I am associated with various International Health/Scientific bodies like Indian Psychiatric Society, International Epidemiological Association, Indian Association of Public Health, International Institute of Stress Management and Allied Sciences, Xiphosis/XPP, Thailand, IDC Foundation, Self-Actualisation Society, Margdarshan, World without Anger, Nepal. I have visited Thailand and Nepal in my strength as Scientist and Faculty of International Institute of Stress Management and Allied Sciences. I have trained top and middle level managers in stress management from National Thermal Power Corporation (NTPC), Damodar Valley Corporation (DVC), Ambuja Cement, Airports Authority of India (AAI), Steel Authority of India Limited (SAIL), Indian Institute of Education (IIE), Pune (Maharashtra). I have also trained teaching faculty and post-graduate students in research methodology from Maharishi Markandeshwar University (MMU), Ambala, Haryana; Dr. D.Y. Patil University, Pune; Modern Dental College, Indore; and medical officers in Qualitative Research Methods (QRMs). I have organised national and international conference and workshops. Recently, I organised two International Conferences on Stress: Health, Society and Technology at Jawaharlal Nehru University, New Delhi, which was attended by eminent scholars and researchers from India and abroad. I have special interest in the areas of research methodology, epidemiology, stress management, lifestyle diseases, positive psychology, disaster management, health communications, motivation and geriatrics. I have guided M.B.A. and Ph.D. students. Based on Research Paper published from our study, Fortune Company has launched India's first anti-diabetic and anti-hypertensive blend oil called Fortune Vivo.

# Dr Sanjiv Kumar

Dr Sanjiv Kumar did his MBBS and MD from AIIMS, DNB in MCH and MBA in Strategic Management. He has 40 years of experience in public health across 29 countries. He started as MO in Indian Army andworked at PHCs in Haryana and urban slums in Delhi. He worked in UNICEF for 22 years as health specialist in India and as Chief of Child Survival & Development and Senior Advisor in Iraq, Kenya, Uganda and Somalia and Regional Advisor for 22 countries in Central Asia, Central and Eastern Europe and Baltic States. His work covered strategic program reviews, planning, implementation, monitoring and evaluation, capacity building of semi-literate village volunteers, health workers, program managers, senior faculty of medical, nursing and paramedic colleges, strategic planning and managing of health programs. He came back to academics and developed and facilitated courses for government officials and NGOs in leadership and strategic management for health officials and supervised research projects. He currently heads National Health Systems Resource Centre that provides technical support to Ministry of Health and Family Welfare and 36 state and UTs governments in India.He has published about 100 papers in scientific and popular magazines and chapters in books.

### Dr Jitender Sharma

Dr. Jitendar Kumar Sharma is at National Health Systems Resource Center, the technical support institution under Ministry of Health & Family Welfare, Government of India. He earlier served as Hospital Administrator at Sri Sathya Sai Institute of Higher Medical Sciences. He is program director for Health Technology Assessment (HTA) fellowships in India. He is a member of National Signal Review panel for Pharmacovigilance Program of India under Drug & Device regulatory authority and a member of National working group for establishment of Materiovigilance Program of India to improve medical devices safety. He has been an adviser at Health Technology Innovation Centre, IIT Madras and serves as faculty for National Accreditation Board for Hospitals (NABH) in India for Medical Devices. He has contributed through several research papers, six books on health technologies & assessments, six compendiums on technical specifications for medical technologies and has been contributor to the WHO report on access to healthcare technologies. He is life member of Academy of Hospital Administration, and Biomedical Maintenance Society of India.

### Dr Kalipso Chalkidou

Kalipso Chalkidou is the founding director of NICE's international programme, helping governments build technical and institutional capacity for using evidence to inform health policy. She is interested in how local information, local expertise and local institutions can drive scientific and legitimate healthcare resource allocation decisions. She has been involved in the Chinese rural health reform and also in national health reform projects in Colombia, Turkey and the Middle East, working with the World Bank, PAHO, DFID and the Inter-American Development Bank as well as national governments. She holds a doctorate on the molecular biology of prostate cancer from the University of Newcastle (UK), an MD (Hons) from the University of Athens and is a visiting Professor at King's College London, a senior advisor on international policy at the Center for Medical Technology Policy (USA) and visiting faculty at the Johns Hopkins Berman Institute for Bioethics. Between 2007 and 2008, she spent a year at the Johns Hopkins School of Public Health, as a Harkness fellow in Health Policy and Practice, studying how comparative effectiveness research can inform policy and US government drug pricing policies.

### Dr K K Talwar

Outstanding figure in the medical profession in the country. Former Professor and Head, Cardiology, AIIMS. Former Director and Professor & Head, Cardiology, PGIMER. Former President, National Academy of Medical Sciences. Former Chairman, BOG, MCI. Currently, Chairman Cardiology, Max Healthcare Institute, Saket, New Delhi and Hon. Advisor to the Government of Punjab on Health and Medical Education. He has significantly contributed to growth of Cardiology in the country particularly in the field of Heart Failure including Transplantation, Device implantation and Radiofrequency therapy in Arrhythmias. His contribution has been listed in Limca Book of Records. He has published more than 220 research papers and 236 abstracts in both national and international journals of repute and has contributed 18 chapters in various national and international books. He has received many recognitions for his contribution in the field of Cardiovascular sciences including Padma Bhushan (2006).

### Dr T Sundararaman

Dr T. Sundararaman, is currently Professor and Dean of the School of Health Systems Studies in Tata Institute of Social Sciences. An MD in Internal Medicine from Madras University he spent the first 22 years of his professional life as a member of the faculty and Professor of Department of Internal Medicine, JIPMER. He then moved to working with public health systems - for first 5 years as head of the State Health Resource Center Chhattisgarh from 2002 to 2007 where he pioneered the Mitanin programmes and state health sector reforms and then as executive director of National Health Systems Resource Center, from 2007 to 2014 where he developed and led an institution providing technical support to the many initiatives undertaken under the National Rural Health Mission. He was also the member secretary of the Sector Innovation Council in Health. He also served as visiting faculty for one year in the Dept of Social Medicine & Community Health in Jawaharlal Nehru University and as adjunct faculty in the dept of humanities of IIT Chennai. All along he has also been an activist for health rights and an organizer of peoples health movements. He has published a number of research papers and popular books on strengthening public health services and on health policy.

### Ms Vini Mahajan

Ms Vini Mahajanis serving as Principal Secretary Health and Family Welfare, Government of Punjab since April 2012. She concurrently served as Principal Secretary Department of Medical Education and Research, Punjab from December, 2012 to August, 2014 and

Principal Secretary Department of Finance from May, 2014 to June, 2015. The Health Department of the state of Punjab provides medical services to over 28 million residents through a network of about 4000 institutions with over 10,000 beds. It has about 20,000 employees including over 4000 doctors. It also provides healthcare to 2.5 million poor families through insurance based schemes involving accredited private as well as government hospitals. As Principal Secretary, Ms Mahajan has been the Chief Executive of the Department for the last over four years. This period has seen major policy initiatives, especially towards Universal Health Care through measures such as free essential drugs and consumables and lab tests in all Punjab Govt. hospitals. A toll free 24X7 medical helpline was started. New policies for hiring and rational deployment of HR were put in place. Strong measures to reduce IMR and MMR led to good outcomes. In order to address the adverse sex ratio in the state, free treatment was introduced for the girl child up to 5 years of age. Special attention was given to the problems of cancer and substance abuse. The CM's Cancer Relief Fund Scheme was strengthened and made cashless for all patients. Infrastructure in the public sector was strengthened, awareness and early detection, and palliative care, promoted. Cancer registries were started for evidence based policy interventions. Facilities were put in place for deaddiction and rehabilitation in the public sector, and an epidemiological study initiated. The Punjab State Cancer & Drug Addiction Treatment Infrastructure Fund Act, 2013 was enacted. Similar efforts have now been initiated with regard to Hepatitis C, with the state launching a scheme in June 2016 for free treatment to all patients in all District Hospitals and Govt Medical Colleges, with a view to elimination of Hepatitis C in 10 years. She was a member of the national delegation to the regional (Asia Pacific) and global UN Conference on Population & Development.

### **Dr Prem Nair**

Dr. Prem Kumar Vasudevan Nair currently serves as the Medical Director at Amrita Institute of Medical Sciences at Kochi campus of Amrita University. He is a skilled clinician par excellence and also serves as a Professor at the Department of Gastroenterology at the School of Medicine, Kochi. He has pursued a Doctor of Medicine (D. M.) and has completed his Fellowship of American College of Physicians (F. A. C. P.) in Hepatology from the School of Medicine at University of Southern California in June 1986. Dr. Prem Nair also holds the office of the President of Association of Healthcare Providers (India)(link is external).

### Dr Ramanan Laxminarayan

Prof. Ramanan Laxminarayan is Vice-President for Research and Policy at the Public Health Foundation of India. He is an economist and epidemiologist by training. His research work deals with the integration of epidemiological models of infectious diseases and drug resistance into the economic analysis of public health problems. Through his work on Extending the Cure project in the United States and the Global Antibiotic Resistance Partnership, he has worked to improve the understanding of antibiotic resistance as a problem of managing a shared global resource. He has worked extensively with the World Health Organization (WHO), World Bank and other international organisations on evaluating malaria treatment policy, vaccination strategies, the economic burden of tuberculosis, and control of non-communicable diseases. Prof Laxminarayan is an editor of the Disease Control Priorities for Developing Countries, 3rd edition. He has served on a number of advisory committees at the World Health Organization, Centres for Disease Control and Prevention, and the US National Academies of Science/Institute of Medicine. In 2003-04, he served on the Institute of Medicine Committee on the Economics of Anti-malarial Drugs and subsequently helped create the Affordable Medicines Facility for malaria, a novel financing mechanism for antimalarials. He has co-authored and edited five books and published over eighty peer-reviewed journal articles. Prof Laxminarayan also directs the Center for Disease Dynamics, Economics & Policy in Washington DC, and is a Research Scholar and Lecturer at Princeton University.

### Ms Waranya Rattanavipapong,

Waranya Rattanavipapong joined Health Intervention and Technology Assessment Program (HITAP) in February 2010. She was graduated with Bachelor's Degree in Pharmacy, major in Social and Administrative Pharmacy & Clinical Pharmacy from Srinakharinwirot University in 2008. In 2013, she was awarded the Capacity Building of Researchers in Health Policy and System Research Scholarship, International Health Policy Program Foundation to pursue a Master's degree in Health Economics and Decision Modelling from the University of Sheffield and graduated in 2014. She is interested in conducting economic evaluation of health interventions and programs, particularly pharmacoeconomic research. During the past five years, she has been involved in several research projects to support national and international policy making.