Source - US News, March 20, 2014

"Evidence to policy!"

The Government of India is committed to extend healthcare services to its 1.34 billion population as part of India's Universal Health Coverage (UHC) agenda. However, it is a challenge to devise ways to reduce catastrophic out of pocket (OOP) expenditure on healthcare and ensure affordable access to essential health care for the entire population with the limited resource envelope. 2014 World Bank report estimated the OOP spending on healthcare in India to be as high as 89%. Extending adequate healthcare services to the population requires optimal utilization of existing resources to ensure that the greatest amount of health is bought for every rupee spent. This can be ensured with the help of **Health Technology Assessment (HTA)**, which is a widely used methodology internationally for optimization of resource allocation in health.

HTA is a method of evidence synthesis that considers aspects pertaining to clinical effectiveness, cost- effectiveness, social, ethical and legal implications of the use of "health technology" for healthcare interventions. The main purpose of conducting an HTA is to inform policymakers about all these aspects of health interventions in an explicit way and based on evidences.

To facilitate the process of transparent and evidence informed decision making in the field of health, Government of India has set up **Health Technology Assessment in India (HTAIn)** under the **Department of Health Research (DHR), Ministry of Health & Family Welfare (MoHFW).** It is entrusted with the responsibility to analyze evidences related to cost-effectiveness, clinical-effectiveness and equity issues regarding the deployment of health technologies viz. medicines, devices and health programmes by means of HTA in India, and in turn help in efficient use of the limited health budget and provide people access to quality healthcare at minimum cost.

Efficacy & Effectiveness

Value for Money

Social Acceptability

Ethical Considerations

Budget Impact

Public Health Impact

HTA in India

Evidence-based decision making in a pluralistic society like India is a challenging task. Therefore, to maintain the consistency of the procedure and outcome HTAIn has developed standard guidelines that will be followed by the **Secretariat at DHR** and **Technical Partners (TP)** of DHR located in institutions administered by Centre/ States while conducting HTA study. HTA in India aims to evaluate the available evidences regarding cost and clinical effectiveness of a health interventions that will help in reducing the OOP expenditure of patients and maximizing coverage. In addition to that it will also consider social and ethical aspects regarding the use of health interventions that will help in minimizing the variations in patient care and overall streamlining the medical reimbursement and procurement procedures by the user departments. It ensures greater reach of health programmes in terms of coverage by minimizing cost and accessibility in terms of inclusion of cost for awareness and acceptability.

Although, a thorough review, synthesis of the evidence and economic evaluation are critical steps toward evidence-based decision making, they are not sufficient. Framing the key question and feasibility of implementation/ acceptance of the outcome is beyond scientific focus. Framing the question is the responsibility of the decision makers or user departments (Governments, payers, and providers) and acceptability depend upon the stakeholders. HTAIn will focus on evidence review and synthesis. The implementation of the outcome policies will be done by the user departments.

Adapted from Teutsch & Berger, Med Decis Making. 2005, 25(5):487-9
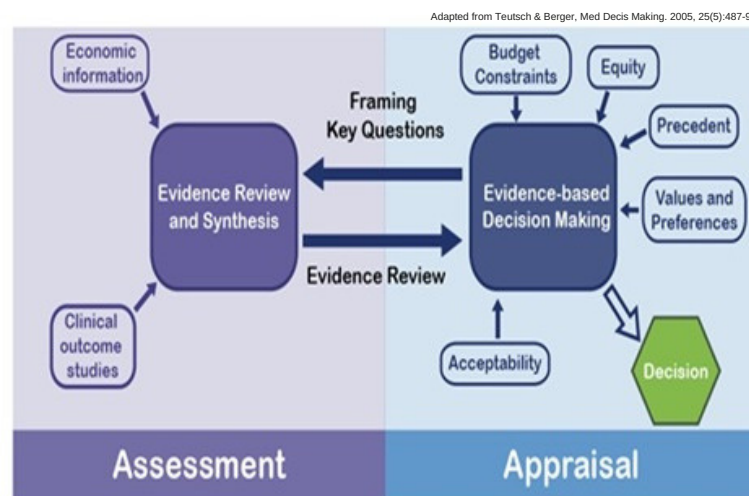
Two main components of HTA: Assessment and Appraisal

Purpose of HTA

Immediate goals of HTAIn are:
1. To inform Government Health Department Officials about undertaking Public Health Programs.
2. To inform Research Agencies about evidence gaps and unmet health needs
3. To inform Hospitals and other Health Care Organizations and help in decisions regarding technology acquisition and management
4. To inform Clinicians and Patients about the appropriate use of Health Care Interventions for a particular patient's clinical needs and circumstances.

There could be other possible roles of HTAIn as it evolves, such as:
1. To Inform Regulatory Agencies about the commercial use (e.g., marketing) of a drug, device or other medical technology.
2. To inform Payers (Governments Health Departments. Health Plans/ Drug formularies, Patient Groups etc.) about the technology coverage and reimbursement.
3. To inform Health Care Experts about the role of a technology in Clinical Protocols or Practice Guidelines.
4. To inform lawmakers and other political leaders about policies concerning technological innovation, health financing and regulation of health care.

HTAIn Structure

HTAIn consists of a **DHR in-house Secretariat, Technical Appraisal Committee (TAC), Technical Partners (TP)** and **Regional Resource Hubs.**

HTAIn Structure

User department(s) give their topic(s) to the Secretariat. The topics are prioritized and allocated to an appropriate TP/ Resource Hub to conduct the HTA study.

HTA proposals as well as the outcome of the study is appraised by the TAC and stakeholders. Thereafter, final outcome is forwarded to the User Department. Secretariat is the point of co-ordination for TAC, TP and User Department.

User Department

User Department could be Central and State Health Ministry or any Government Healthcare Provider or Agency that are directly or indirectly involved in the health sector in India. They come up with the topic for HTA study with a clear policy question. depending upon likely usage of certain health technologies for programmes or projects of healthcare.

HTAIn Secretariat

HTAIn Secretariat or **Secretariat** is a DHR-in-house body that co-ordinates between the User Department, TAC and TP/ Resource Hubs. Secretariat takes the topic from the user department, prioritizes it, identifies the potential TP and allocates the topic to them to conduct HTA study. It keeps monitoring the progress of the study and also provides necessary assistance to the TP wherever required. Secretariat can also undertake topics for HTA analysis in certain situations. Besides that, secretariat conducts all the TAC and Stakeholders consultation meetings in DHR and ensures transparency at all stages of HTA by consultation and regular updates.

Regional Resource Hubs

DHR is setting up Regional Resource Hubs in collaboration with the State Governments in Institutes administered by the Centre/ States. DHR will provide requisite manpower to these hubs so that these hubs provide technical support for a bunch of States located in the vicinity. The mentor of the hub would liaise with the officials of the State Governments and sensitize them about a need for Health Technology Assessment (HTA) for any health intervention. The hubs would also ensure robust HTA on the topics relevant to the States and also ensure uniformity/ consistency of methodologies/ processes documented by DHR in its Process Manual. At present 6 resource hubs have already been established:

(i) Postgraduate Institute of Medical Education and Research (PGIMER) – It is a premier medical and research institution in Chandigarh, **Punjab.** Health Economics is one of the sub-specialties within the School of Public Health whose faculty is engaged in capacity building of health care professionals and conducting high-impact policy relevant economic analysis for health care programs and policies. PGIMER will liaise with the State Govt. of **Jammu & Kashmir, Haryana** and **Himachal Pradesh.**

(ii) Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) - It is an autonomous institute of national importance situated in Thiruvananthapuram, **Kerala**. The Achutha Menon Centre for Health Science Studies (AMCHSS) within the SCTIMST is recognized as a centre of excellence for public health training by the MoHFW and has been identified to be a resource hub for HTAIn.

(iii) National Institute for Research in Reproductive Health (NIRRH) - It is an ICMR Research institute situated in Mumbai, **Maharashtra.** Department of Bio-statistics in NIRRH has good experience working with the Government of Maharashtra and has been identified as a Resource hub that will liaise with the State Govt. of **Andhra Pradesh** and **Telangana.**

(iv) National Institute for Research in Tuberculosis (NIRT) - It is a tuberculosis research organization located in Chennai, **Tamil Nadu**. NIRT carries out research on TB and HIV-TB. Department of Bio-statistics in NIRT offers courses regarding public health and has been identified to be a regional resource hub for HTAIn.

(v) Regional Medical Research Center (RMRC) - Located in Bhubaneswar, **Odisha, RMRC** has been identified to be one of the resource hubs. it is an advanced research institute in the field of medical sciences. The main focus area of research of the institute is on locally prevailing communicable and non-communicable diseases, tribal health and malnutrition in Odisha and adjoining states. It will liaise with the State Govt. of **Bihar, West Bengal** and **Jharkhand.**

HTAIn resource hubs

(vi) Indian Institute of Public Health (IIPH) - Situated in Meghalaya, **Shillong,** it is 4th of its kind established under the aegis of Public Health Foundation of India (PHFI). Its main objective is to build up a large human resource base of public health professionals by establishing a network of world-class colleges and schools of public health. **IIPH** resource hub they will liaise with the **North-Eastern States.**

Besides all these, approval for the resource hub in **SAST –Karnataka, Civil Hospital/IIPH, Gujarat and Medical College, Bhopal** is underway. DHR is also getting in touch with other states' health officials regarding the establishment of hubs such as **Delhi and Uttar Pradesh.**

Source: Rivera M, Collarobarative Minds Blog, May 29, 2014,
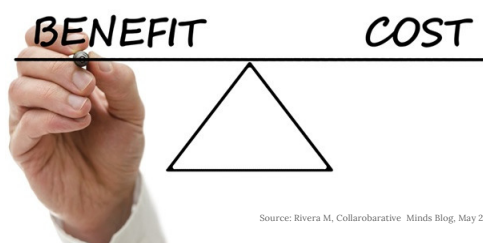
Technical Partners

Technical Partners are Institutes of the Cental/ State Government which have been identified with regards to their capacities, expertise and previous experiences in the HTA.

TP will undertake the HTA study allotted to them and ensure consistency and uniformity with Process Manual through regular interactions and by also making a template available for each stage of the 'Assessment'.

So far, 11 HTAIn Technical Partners have been identified **- (i) AIIMS, Delhi (ii) NIMS, Delhi (iii) NHSRC, Delhi (iv) PHFI, Delhi (v) Institute of Economic Growth, Delhi (vi) IIT, Mumbai (vii) NIV, Pune (viii) NARI, Pune (ix) IIHMR, Jaipur and (x) IIPH, Bhubaneswar** and **(xi) IIT, Chennai**

Technical Appraisal Committee (TAC)

Technical Appraisal Committee (TAC) is a multidisciplinary body with experts drawn from different areas viz economists, clinicians, researchers, social scientists, policy experts etc. The Committee is invariably headed by an eminent person. It ensures the appraisal of the topics taken up for HTA at different stages.

TAC Core Members are **Prof. K. K. Talwar**, Ex-Director, PGIMER,Chandigarh-Chairperson; **Dr. J. V. Peter**, Director, CMC, Vellore-Vice Chairperson; **Prof. T. Sundararaman**, Dean, TISS, Mumbai; **Dr. Rajni Ved,** ED,NHSRC; **Dr.Sudha Chandrasekar**, Director, Medical, SAST, Karnataka; **Dr. Rama Baru**, Professor, JNU, Delhi; **Prof. V. R. Muraleedharan**, IIT, Madras and **Prof. Indrani Gupta**, Head, Health Policy Research Unit, Institute of Economic Growth.

Till date, five TAC meetings have taken place in DHR regarding the appraisal of the HTA proposals submitted by the TP and discussing potential challenges HTAIn may face in the Indian scenario such as perspective, equity issues, availability of evidences, etc.
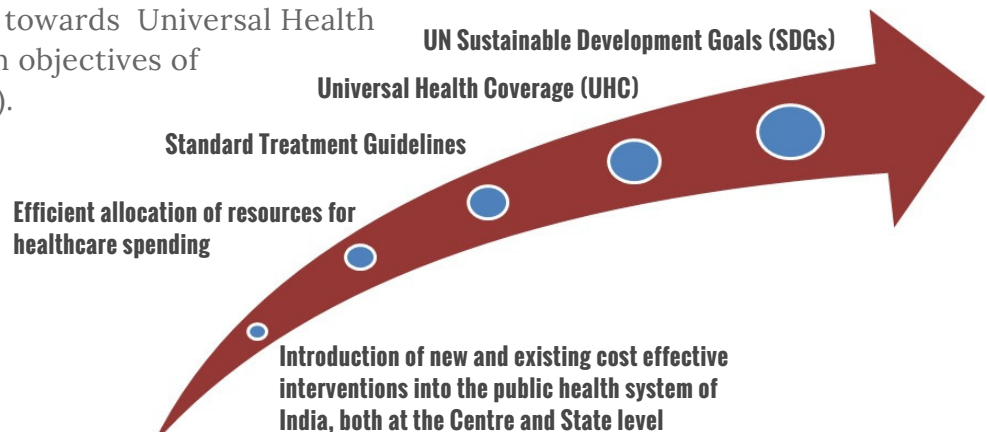
HTAIn Objectives and Significance

The main objectives of HTAIn is maximizing health, reducing Out of Pocket Expenditure (OOP), and minimizing inequality in healthcare services. These objectives can be achieved by supporting the process of decision-making in health based on scientific evidence, developing systems and mechanisms to assess new and existing health technologies by a transparent and inclusive process and appraising health interventions and technologies based on available data.

1 MAXIMIZING HEALTH

2 REDUCING OOP EXPENDITURE

3 MINIMIZING INEQUALITY

Introduction of a new or existing health technology into the public health system based upon their cost and clinical effectiveness will help in efficient allocation of scarce healthcare budget. It will help further in developing Standard Treatment Guidelines and accelerate the country towards Universal Health Coverage (UHC) that is one of the main objectives of Sustainable Development Goals (SDGs).
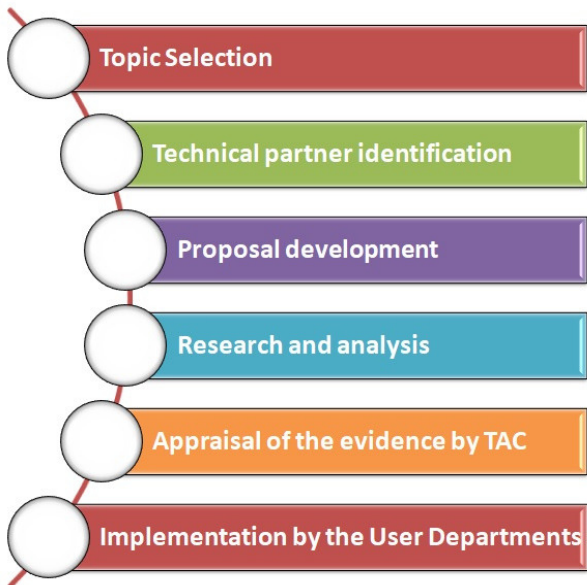
HTAIn will inform healthcare policy decision making, ensure healthcare accessibility to all and educate and empower the public to make better informed decisions for health.

Significance

UN Sustainable Development Goals (SDGs)

Universal Health Coverage (UHC)

Standard Treatment Guidelines

Efficient allocation of resources for healthcare spending

Introduction of new and existing cost effective interventions into the public health system of India, both at the Centre and State level

HTAIn Procedure

- Topic Selection
- Technical partner identification
- Proposal development
- Research and analysis
- Appraisal of the evidence by TAC
- Implementation by the User Departments

HTAIn Procedure

User Department gives the topic to the secretariat with a clear policy question they want to address. Topics are selected and prioritized on the basis of given set of "prioritization criteria". Once the topics are selected a potential technical partner, depending upon their area of expertise and capacity, is identified to take up that topic to conduct the HTA study . TP is asked to develop a formal HTA proposal that is appraised by the TAC and, if approved, funds are sanctioned to the TP to conduct the HTA study. Once the results of the study are out they are again presented in front of the TAC for appraisal. Finally results are handed over to the user department.

Proposal and results are also discussed in front of the stakeholders for their comments and feedback.

Topics selected for HTA study in HTAIn

Topic selection and prioritization is done by the TAC and Secretariat according to the need of the society. The **criteria of topic selection** are – (i) Size of population affected by disease (Incidence/Prevalence) (ii) Burden of disease (Severity of disease) (iii) Effectiveness of available intervention (iv) Economic impact on House hold expenditure (v) Availability and relevance of evidence for conducting HTA (vi) Health sector priority and policy objectives.

Once selected topics are assigned to a potential technical partner.

Right now eight topics have been assigned to various technical partners and resource hubs to conduct HTA analysis. One topic i.e. Intraocular lens for cataract surgery is taken up by the Secretariat as an in house study. Secretariat is receiving several new topics and their prioritization and TP identification is underway.

Topic	Technical Partner
Cervical Cancer Screening	• PGIMER, Chandigarh
Intraocular lens	• HTAIn Secretariat
Breast Cancer Screening	• NHSRC, Delhi
Safety Engineered Syringes	• PGIMER, Chandigarh
Implants for Family planning	• NIRRH, Mumbai
Non-invasive Hemoglobinometers,	• AIIMS, Delhi
Screening for Diabetes	• PGIMER, Chandifarh
Intrauterine Balloon Tamponade	• NIRRH, Mumbai

Topics assigned to various Technical Partners

Stakeholders

Stakeholders are individuals, organizations or communities that have a direct interest in the process and outcomes of a health technology assessment. Stakeholders in the HTA process include patients, health professionals' organizations, user departments (e.g. RSBY or NPPA, NHM), Central Government and/or State Government, public health authorities, policy makers, medical insurers, regulatory agencies, industrial associations (e.g. manufacturers, suppliers, wholesalers, distributors and retailers), academicians or methodological experts, researchers, social groups, NGOs and so on.

Stakeholders are distinct from the common public as they have direct interest in a certain HTA topic; therefore, their participation in a specific HTA is both rational and likely to contribute to the quality and legitimacy of the process and outcomes. The stakeholders are informed when the topics are selected for study and a consultation meeting is organized where TP present their proposal to the stakeholders for their feedback and the same stakeholders are again consulted for a second meeting when outcomes are to be discussed. Conflicts of interests, if any, are addressed making the process transparent and all inclusive.

Till date, four stakeholders consultation meetings have been conducted in relation to - (i) Intra Ocular Lens for Cataract Surgery (ii) Screening of Breast Cancer and Cervical Cancer (ii) Hemoglobinometers and (iv) Safety Engineered Syringes (SES).

Stakeholders appreciated the concept of HTAIn and provided their valuable inputs in the proposals. Results of one of the topics i.e. Safety Engineered Syringes were out and discussed in a stakeholders consultation meeting held in IRCS building, DHR, New Delhi on 12th December, 2017. The results were appreciated and well accepted by all the stakeholders.

Healthcare Options

Capacity Building
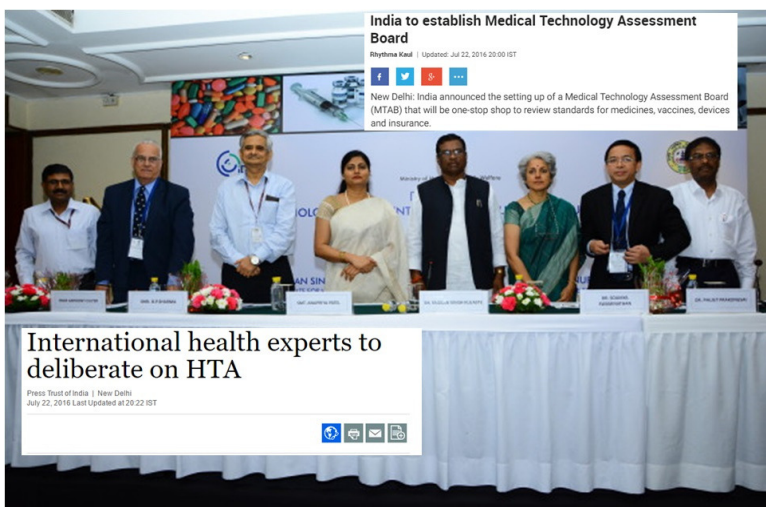
1st Consultative Meeting and Workshop
25 July, 2016

Attended by over 200 delegates, including Ministers of State for Health, **Shri F. S. Kulaste** and **Smt Anupriya Patel;** General of Health Services, **Mr Jagdish Prasad**; and the Secretary of DHR, **Dr Soumya Swaminathan.** Ministers from the states of Punjab, Tamil Nadu, and Karnataka also joined this meeting.

HTAIn Secretariat

Dedicated workforce of HTAIn Secretariat is in place including (left to right) **Miss Jyotsna Naik** (Scientict-C), **Dr. Kavitha Rajsekar** (Scientist-D), **Dr. Aamir Sohail** (Health Policy Analyst), **Dr. Soumya Swaminathan** (Ex-Secretary, DHR), **Shri V. K. Gauba** (Joint Secretary, DHR), **Dr. Shalu Jain** (Scientist-C), **Dr. Oshima Sachin** (Scientist-D) and **Mr. Pradhan Dambarudhar** (Consultant, Finance & Accounts).

SCTIMST Workshop
8-13 May, 2017, Kerala

Workshop regarding **Economic Analysis in HTA** was attended by around 50 delegates. Experts from **HITAP, Thailand** and Consultants from **Imperial College, London** were a part of the workshop. Besides that, delegates from **HTAIn Secretariat; PGIMER, Chandigarh; NIV, Pune; NIRRH, Mumbai; NHSRC, New Delhi; PHFI, New Delhi** and **SCTIMST, Kerala** attended the workshop for capacity building.

Other Workshops

- **Workshop on Systematic Review, 29-30th May 2017, DHR, MoHFW, New Delhi.**
- **Workshop on HTA Proposal Writing, 22nd December 2017, DHR, MoHFW, New Delhi**

Short Messages

Rapidly rising expenditure on healthcare is a growing concern for Governments and Healthcare Providers around the world. Countries have employed a variety of approaches in an effort to keep pace with the latest health technologies while maintaining affordable access to healthcare for patients. The use of health technology assessment (HTA) in allocating healthcare resources is one common approach adopted and is the focus of many low-middle income countries like India. This will be a step forward to achieve Universal Health Coverage

Dr. Soumya Swaminathan, Ex-Secretary, DHR; Ex-Director General, ICMR; Deputy Director-General, WHO

The Health Technology Assessment helps ease patient access to cost effective health technologies that improve health outcomes. Using evidence for decision making is a rational approach. Health Technology Assessment is an effective tool used for decision making for covering technologies and drugs under health insurance plans. Health Technology Assessment is an established tool for systematic and evidence based decision making. This initiative under DHR will be a milestone for healthcare spending in India.

Dr. K. Vijay Raghavan, Secretary, DBT; Secretary DHR; DG, ICMR

Government of India has decided to set up Health Technology Assessment in India (HTAIn) for informing a policy decision that is evidence based and more explicit. HTAIn will compile evidences related to cost- effectiveness, clinical- effectiveness and safety of medicines, devices and health programmes by means of Health Technology Assessment (HTA) studies. It is a very promising step towards providing good quality healthcare to maximum number of people at minimum cost.

Shri V. K. Gauba, Joint Secretary, DHR; Senior Deputy Director General, ICMR

Editorial

Dr. Kavitha Rajsekar, Scientist - D,
HTAIn, DHR, MoHFW
kavitha.rajsekar@nic.in,
23736085

Dr. Aamir Sohail, Health Policy Analyst,
HTAIn, DHR, MoHFW,
aamir.sohail@nic.in

Wish you all a Very Happy and Healthy 2018