Approaches and Tools for Strengthening Pharmaceutical Systems

# Using Health Technology Assessment to Strengthen Informed Decision Making

Technical Brief | February 2023

## Why is health technology assessment important?

The pharmaceutical system is a subset of the broader health system and aims to ensure access to and appropriate use of safe, effective, quality-assured, affordable medical products and related services to improve health. Meeting these aims requires that countries have a well-functioning national pharmaceutical financing system with the capacity to mobilize, allocate, and use resources in a timely manner. Yet, all health systems—particularly those in low- and middle-income countries (LMICs)—face the challenge of managing and allocating limited financial resources for health, including medical products and related services. As countries strive to achieve universal health coverage (UHC)—ensuring that "all people have access to the full range of quality health services they need, when and where they need them, without financial hardship"[1]—there is an increasing importance in effectively managing and allocating the limited resources.

Health technology assessment (HTA) is a valuable tool for priority setting and making difficult resource allocation decisions. It "is a multidisciplinary process that uses explicit methods to determine the value of a health technology at different points in its lifecycle. The purpose is to inform [resource allocation decisions] to promote an equitable, efficient, and high-quality health system."[2] In LMICs, implementing HTA is an evolving journey that requires building technical expertise and navigating a growing health care burden with limited available resources.

***In this document, we present approaches and tools that MTaPS has found effective to strengthen and support HTA implementation and describe how organizations can apply them in their context.***

## Approaches and tools for implementing HTA

As part of its work to strengthen pharmaceutical systems in LMICs, the USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program supports strategies to optimize financing to better utilize resources, strengthen systematic priority-setting processes, reduce out-of-pocket spending, and adequately fund and manage essential medicines. A key element of MTaPS' financing work is supporting HTA implementation. This work takes many forms and includes supporting countries to:

[1] WHO. (n.d.). Universal health coverage. https://www.who.int/health-topics/universal-health-coverage#tab=tab_1

[2] O'Rourke B, Oortwijn W, Schuller T, & the International Joint Task Group. The new definition of health technology assessment: a milestone in international collaboration. Int J Technol Assess Health Care. 2020; 36:187-190. https://doi.org/10.1017/S0266462320000215

- Build capacity of key stakeholders on HTA methods, including multicriteria decision analysis, a method that enables the comparison of medical technologies by combining individual criteria into one overall appraisal; and use real-world evidence, which is derived from the analysis of real-world data, often analyzed through observational studies as opposed to clinical trials
- Simplify HTA committees' topic selection processes
- Use HTA results from other countries to support decision making on resource allocation in contexts where data are limited and HTA is still nascent
- Strengthen the HTA appraisal process

MTaPS' HTA work draws on *A Roadmap for Systematic Priority Setting and Health Technology Assessment (HTA)*, which provides a stepwise approach for HTA implementation. The roadmap advocates for using HTA in LMICs for determining the value of a health technology (e.g., a medical product or medical device) at different points in its lifecycle to inform decision making. The document is structured using an adapted stages model to characterize the basic elements of dynamic policy making for HTA (figure 1), yet it recognizes that health-related policy making is not always a straight-forward process and that overlapping and non-linearity of these stages may occur.

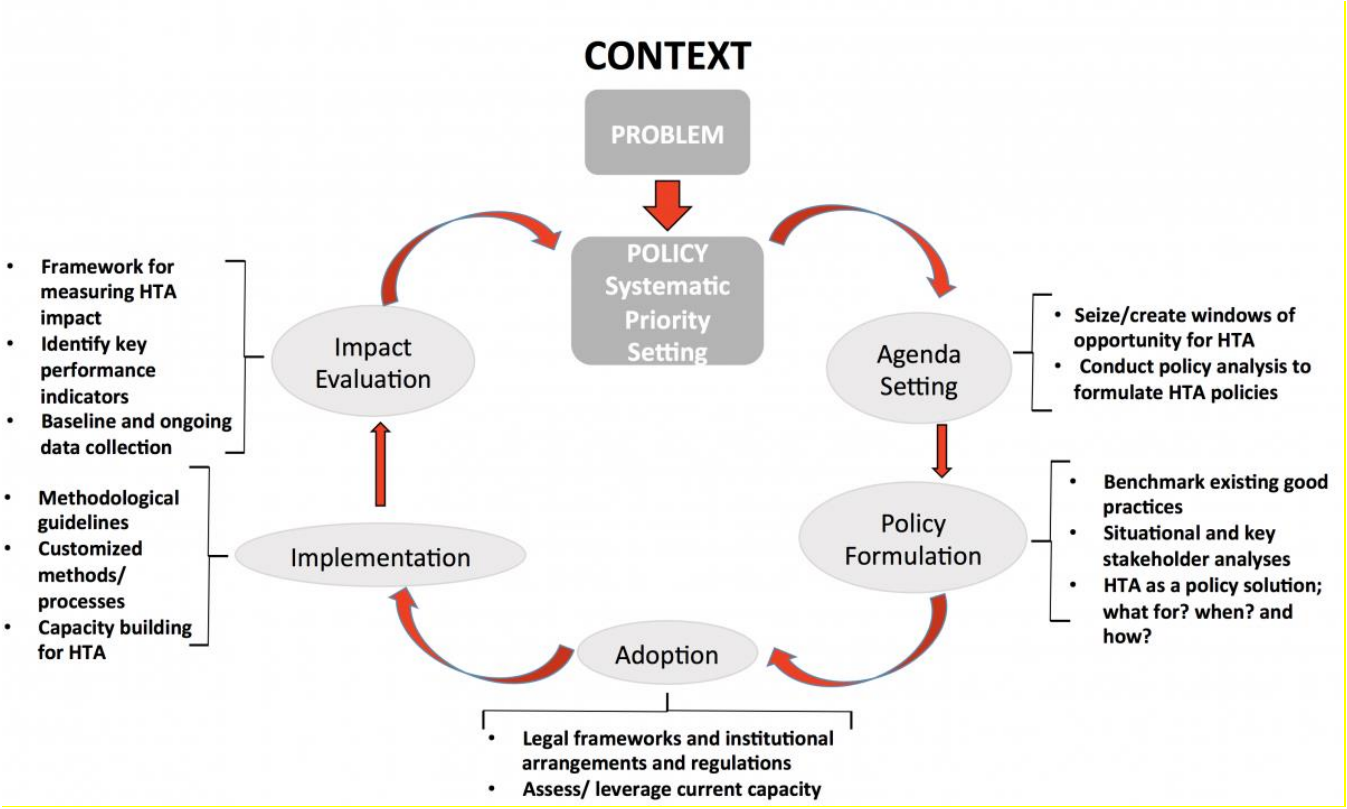


**Figure 1. A framework for institutionalizing HTA (Castro 2020)**

# Case studies on HTA implementation

## Assessing HTA progress in Asian countries using a balanced scorecard

Systematically assessing progress on HTA is important, both for identifying context-specific challenges that constitute barriers to HTA implementation and lessons that may be applicable more broadly. MTaPS experts developed a balanced scorecard for assessing HTA, based on previous WHO research[3] on milestones for institutionalizing HTA in Asia.

[3] Chootipongchaivat, S., Tritasavit, N., Luz, A., Teerawattananon, Y., & Tantivess, S. (2015). Factors conducive to the development of health technology assessment in Asia: impacts and policy options. *WHO*. Policy Brief, 4(2). https://apps.who.int/iris/bitstream/handle/10665/208261/9789290617341_eng.pdf?sequence=1&isAllowed=y

Using a scoring system with a scale of 1 to 5 across WHO's 18 identified milestones, MTaPS assessed progress on HTA in China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, and Vietnam. In a published paper[4] on the assessment using the balanced scorecard in these nine countries, MTaPS found that:

- Given the link between increased HTA use and UHC (and, more specifically, defining coverage scope), the design of benefits packages and updating of national essential medicines lists are good entry points for HTA application
- Regional collaboration has increased engagement in HTA, indicating the potential strategic importance of HTA resource hubs and shared infrastructure for catalyzing HTA institutionalization
- A formal mechanism linking HTA with policy making—for example, in developing a national list of essential medicines or medical devices—along with political commitment, can lead to strong HTA programs

The balanced scorecard developed by MTaPS offers a pragmatic framework for assessing the state of HTA implementation. The tool's identification of potential barriers to HTA implementation progress can be useful in developing capacity building that targets these weaknesses and focuses on building the necessary technical expertise to address them.

## Strengthening the HTA topic selection process in Indonesia

As the MSH/MTaPS HTA roadmap highlights, the prioritization of health technologies that will be evaluated is an important stage in the HTA process. This process is known as topic selection and allows decision makers—who are not able to evaluate all health technologies—to select which of these technologies to prioritize.

In Indonesia, MTaPS supported the Ministry of Health (MOH) to better understand committees' HTA topic selection processes by conducting a literature review and documenting recommendations from over 60 stakeholders representing the government, academia, and health professional organizations. Although stakeholders trusted and accepted the decisions of the MOH's commissioned panel—composed of experts from various fields—a key challenge was the lack of operational definition criteria and scoring indicators for HTA topic prioritization. Based on the findings, the recommendations for strengthening the HTA topic selection process included:

- Improving the HTA topic selection process using multicriteria decision analysis
- Submitting HTA proposals digitally through the government's website

The government then decided it was necessary to review and revise the topic selection criteria. MTaPS facilitated a workshop with the government and other HTA stakeholders to refine the criteria for HTA topic selection from the eight existing criteria (high volume, high risk, high cost, high variability, policy urgency, health impacts, cost savings, and acceptance) to six criteria (volume, impact of technology on health, cost technology, compliance with policy priorities, potential cost savings, and social acceptance). The government's HTA Committee accepted the new criteria for the measurable indicators and non-redundancy. MTaPS supported the government in developing a flow chart detailing the HTA topic selection procedure, weighting the criteria for HTA topic selection (to reflect the relative importance of each in the prioritization of proposed topics), and codeveloping a digital form for stakeholders to nominate HTA topics.

The simplification of topic proposal requirements and wider access to the submission form will empower stakeholders and improve the quality of HTA proposals.

[4] Kumar R, Suharlim C, Amaris Caruso A, Gilmartin C, Mehra M, Castro H. Assessing progression of health technology assessment implementation in Asia: A balanced scorecard for cross comparison of selected countries in Asia. Int J Technol Assess Health Care. 2022;38(1):E60. https://doi.org/10.1017/S0266462322000423 /

# How can organizations apply these approaches?

Below are resources that can equip organizations with the knowledge and tools to strengthen HTA implementation in local contexts.

### Tools

- A Roadmap for Systematic Priority Setting and Health Technology Assessment (HTA) (Castro 2020): Developed by Management Sciences for Health and the USAID MTaPS Program, this roadmap serves as a practical guide for policy action in LMICs to successfully implement HTA and outlines a path to sustainable UHC and self-reliance.

### Additional readings and resources

- Exploring facilitators and barriers to introducing health technology assessment: a systematic review (Suharlim 2022)
- Assessing progression of health technology assessment implementation in Asia: a balanced scorecard for cross comparison of selected countries in Asia (Kumar 2022)
- Assessing Health Technology Assessment Progress in Asian Countries Using a Balanced Scorecard (September 2022)
- Advancing HTA in Asia for Sustainable Universal Health Coverage (December 2021)
- Who Gets What and Why? (Castro September 2020)

### e-Learning resources

- Pharmaceutical Systems Strengthening 101 (available in English and in French): This course introduces learners to the basic principles of PSS, including how addressing pharmaceutical system problems advances universal health coverage; combats AMR, HIV and AIDS, malaria, tuberculosis, and other public health threats; and promotes maternal and child health.
- Translating HTA into Policy and Practice: Setting a Path to Self-Reliance: This video from the launch of *A Roadmap for Systematic Priority Setting and Health Technology Assessment* provides an overview of the roadmap and highlights several countries' experiences with HTA implementation.
- Health Technology Assessment Pathways in Low- and Middle-Income Countries: Scaling Up for Sustainability of Universal Health Coverage in Asia: This video from a 2021 HTAsiaLink event discusses case studies on best practices, technical frameworks, policy options, and multiple institutional pathways toward systematic priority setting using HTA.

# Contact

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About USAID MTaPS:
The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018–2023) enables low- and middle-income countries to strengthen their pharmaceutical systems, which is pivotal to better health outcomes and higher-performing health systems. The program is implemented by a consortium of global and local partners, led by Management Sciences for Health (MSH), a global health nonprofit.


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*This document is made possible by the generous support of the American people through the US Agency for International Development (USAID) contract no. 7200AA18C00074. The contents are the responsibility of Management Sciences for Health and do not necessarily reflect the views of USAID or the United States Government.*