

# Early Health Technology Assessment (HTA) of Medical Technologies to Inform Subsidy Decision-making in Singapore

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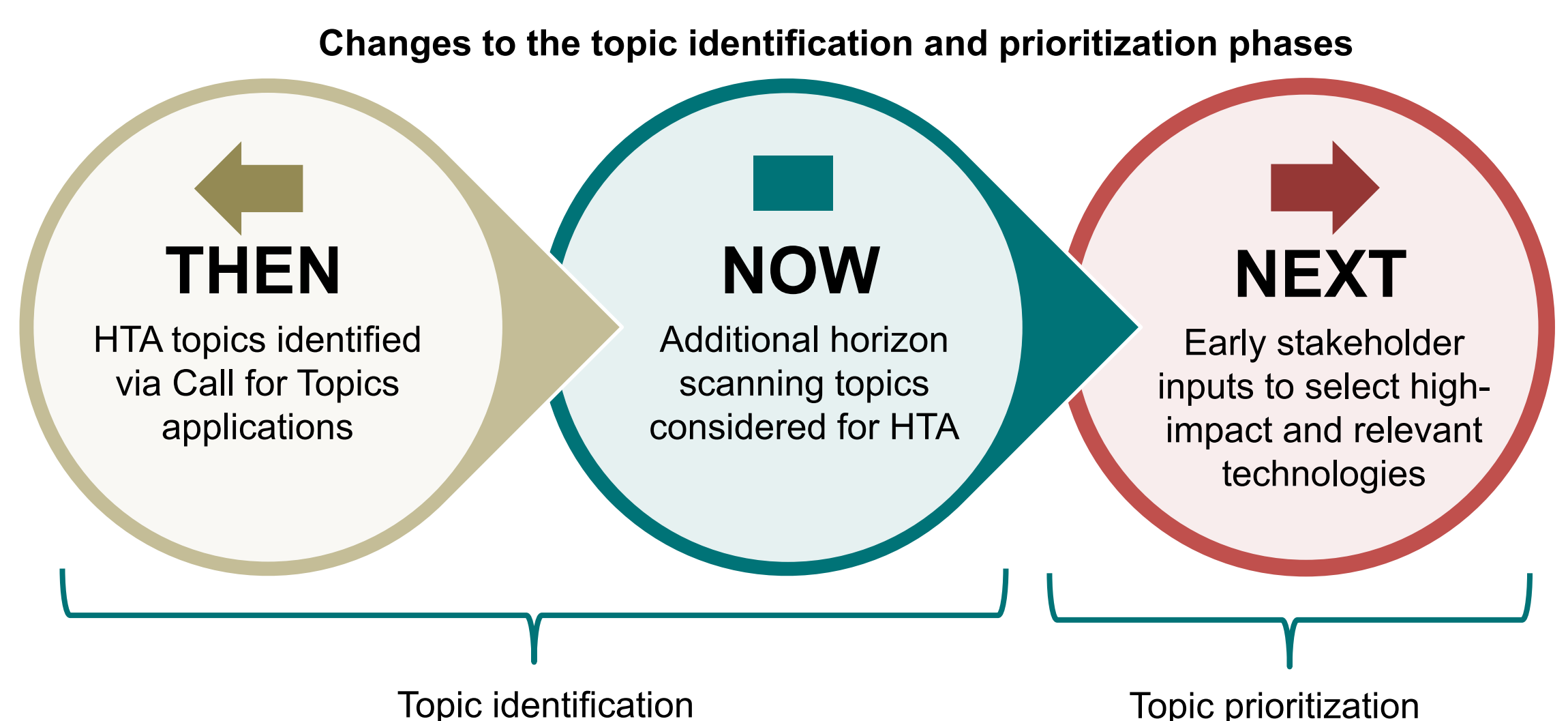
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## Aim

To describe ACE's experience conducting early HTAs for medical technologies and key challenges faced.

## Background

Medical technologies are evolving rapidly, with many new and costly technologies entering the market constantly, challenging the sustainability of the public healthcare system. Early HTA may inform subsidy decisions for innovative medical technologies before their diffusion into the public healthcare system and drive appropriate early adoption or curtail inappropriate use.



## Methods

Since 2021, in addition to inviting public healthcare institutions to propose topics for HTA, ACE has been taking a proactive approach and using horizon scanning (HS) to identify emerging medical technologies. To date, four topics have been shortlisted for evaluation from HS. The standard HTA evaluation framework, with inputs from local clinicians, defined the evaluation scope and clinical pathways. Evidence on safety, effectiveness, and economic considerations was obtained through literature searches and appraised for quality and applicability. All evidence along with budget impact estimations and organizational feasibility assessments were used to inform subsidy decision-making by the Ministry of Health Medical Technology Advisory Committee (MTAC).



## Results

Among the four topics evaluated, MTAC did not recommend subsidy for three technologies due to challenges faced when assessing their early diffusion within the healthcare system, including an immature evidence base, lack of familiarity with the technologies locally and uncertain cost.

### KEY CHALLENGES PREVENTING EARLY DIFFUSION OF TECHNOLOGIES

1. Differing clinical opinions on clinical need and local relevance of technology
2. Uncertain place of technology in the clinical management algorithm
3. Sparse and/or weak evidence, which is continuously evolving
4. Uncertain financial implications to the healthcare system due to a lack of available local costing data of the technologies of interest, and the substantial capital cost incurred for some technologies
5. Uncertainty in assessing the feasibility of adopting the technology into the local healthcare system

## Conclusion

Early HTA of medical technologies identified from HS can be a useful tool to guide subsidy decisions. However, several challenges exist. Careful selection of technologies and timing of evaluation are critical. Seeking stakeholder inputs early would help ensure that only high impact and relevant technologies are prioritized for HTA.