The Necessity of 'Health Technology Assessment (HTA)' in Bangladesh: A move towards Evidence-based Decision Making

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Context to the study

Bangladesh is categorised as an MIC with a population of approximately 166.50 million and a per capita gross net income (GNI) of $2554 in 2021(BBS 2021). Government revenue as a per cent of GDP is 9.3 per cent (2021), and total health expenditure accounts for 3 per cent of the country's GDP. The country faces a high burden of non-communicable diseases (NCDs), which account for approximately 70 per cent of total deaths in Bangladesh. In Bangladesh, according to the WHO Global Health Expenditure database (% of current health expenditure), out-of-pocket expenditure is 69% (2020). Thus, the importance of the establishment of an HTA unit is a burning concern and a prioritised issue for Bangladesh.

Health technology is an innovation or intervention that allows us to improve healthcare delivery by updating medical devices, medicine, vaccines, investigations, procedures, human resources, and health information systems. Although Bangladesh has resource constraints, including human resources, technology, and budget, as well as a lack of effective management and leadership, Bangladesh can develop cost-effective management using HTA, and patients will profit more from it. It will help to balance supply and demand. HTA may be used as a cost-effective decision-making tool in planning and budgeting. HTA will influence the quality of our healthcare delivery if it is implemented efficiently and methodically.1

Health technology assessment (HTA) is an effective tool to support priority setting and generate evidence for decision-making, especially en route to achieving universal health coverage (UHC). UHC means everyone who needs health services gets quality health services without financial hardship. The government of Bangladesh also committed to moving progressively towards universal health coverage by 2032, as documented by the Health Care Financing Strategy of 2012.2. HTA is a mechanism to support decision-making in health towards setting more cost-effective priorities. It has increasingly been recognised as an essential component to achieving UHC through more efficient allocation of resources. Yet, its use is limited to high and middle-income countries. HTA considerations in the decision-making process are almost increasing in the Southeast Asian Region. However, there is a need for HTA to ensure "value for money" to the patients due to tighter resource constraints as many countries transition out of dependence on development aid and aim toward UHC. HTA focuses on two significant questions: Clinical effectiveness and cost-effectiveness of the new technology compared to existing technology.3 The International Network of Agencies for Health Technology Assessment (INAHTA) currently has 55 members from 32 countries. In the Asia Pacific region, The HTAsia Network, the first Asian HTA agency, was established in Malaysia in 1995, Thailand in 2007, South Korea in 2006, Vietnam in 2013, Indonesia in 2014, and India in 2017. Some factors contributing to the slow adoption of HTA in Asia are a need for more awareness and country-specific epidemiological, clinical and health economics data and disjoint research efforts. Indeed, outcomes research and pharmacoeconomics, which are the bedrock of HTA, were introduced in Asia in the late 1990s, at which point many European countries, Canada and Australia had already institutionalised HTA.4

HTA is a multidisciplinary process that summarises information about the properties, effects and impacts of health technologies and interventions. It's a policy tool primarily aiming to generate evidence to inform policy decisions and practices. It is increasingly recognised as a helpful policy tool in LMICs, where evidence is needed to guide UHC policies like quality improvement (QI) interventions and quality

standards (QS). It's also an essential part of a well-functioning and performing health system with the components of clinical validity, clinical utility, efficacy and cost-effectiveness.5

Health technology assessment (HTA) aims to support decision-makers in making good decisions to keep the healthcare system accessible, of the highest quality possible and durable. Not taking into account costs runs the risk of harming the health care system's accessibility or quality, e.g. by increasing patients' contributions or taking away other interventions that provide more value for money to fund the interventions that are relatively too expensive. Health technology assessment is intended to provide a bridge between the world of research and the world of decision-making.

Summary of Research

Aims and Objective: To evaluate the necessity of Health Technology Assessment in Bangladesh for evidence-based Decision Making.

Methodology: This was qualitative research conducted from 01.12.2022 to 31.05.2023 involving government health managers of different tiers, academicians, regulatory and governing bodies of health professionals, and decision-makers and policymakers. In this research, Key Informant Interviews (KII) and Focus Group Discussions (FGD) were conducted through face-to-face interviews using a tape recorder. The audio data were transcribed verbatim into Microsoft Word and analysed using a thematic analysis approach.

Research Findings

Most respondents are aware of the Health Technology Assessment (HTA). According to the respondents, Health Technology is an umbrella phrase for everything relevant to our healthcare system and the delivery of healthcare services. Almost all of them agreed that service delivery would improve if we employed HTA correctly at the community, district, and national levels. According to the responders, clinical effectiveness and patient benefit would improve with HTA. Respondents believe integrating physicians in HTA will help enhance clinical guidelines and practice. Quality will be improved in patient safety, medication safety, and antibiotic resistance. At the same time, patient satisfaction must be ensured at the lowest feasible cost through HTA. One of the obstacles in HTA is the implementation of a newer system. According to the respondents, health technology is an innovation or intervention that allows us to improve healthcare delivery by updating medical devices, medicine, vaccines, investigations, procedures, human resources, and health information systems. The country will be able to develop cost-effective management using HTA, and patients will profit more from it. HTA may be used as a cost-effective decision-making tool in planning and budgeting. HTA will influence the quality of our healthcare delivery if it is implemented efficiently and methodically.

Policy Recommendations

Use health technology assessment, coverage and pricing policies to encourage value for money.

1. Establish a dedicated HTA unit: Bangladesh needs to establish a dedicated HTA unit to evaluate health technologies' safety, efficacy, and cost-effectiveness. This unit should be independent and have the necessary resources to work effectively.
2. Develop a national HTA framework: The HTA unit should develop a national HTA framework that outlines the processes and methods for conducting HTA in Bangladesh. This framework should be based on international best practices and regularly updated to reflect new developments in the field.
3. Build capacity for HTA: The HTA unit should also focus on building capacity for HTA in Bangladesh. This can be done by providing training and support to researchers, policymakers, and other stakeholders involved in HTA.
4. Engage stakeholders: The HTA unit should engage with many stakeholders, including patients, healthcare providers, policymakers, and industry representatives. This will help to ensure that HTA is conducted transparently and inclusively.
5. Use HTA to inform policy decisions: The HTA unit should use its findings to inform policy decisions related to health technologies in Bangladesh. This helps ensure that healthcare resources are used

cost-effectively and that patients can access the most effective treatments.

6. Monitor the impact of HTA: The HTA unit should also monitor the impact of its work on healthcare outcomes and costs in Bangladesh. This will help ensure that HTA is delivering the intended benefits and that it is being used to improve the population's health.

Use new methods to guarantee quicker access to treatments where effectiveness is uncertain or very different across indications while also seeking to reduce uncertainty about the impact of treatments. Coverage with evidence development schemes that have been used for pharmaceuticals (e.g. in the Netherlands, Sweden, and the United States) or medical devices (e.g. in Australia, France, Germany, the Netherlands, Switzerland, the United Kingdom and the United States), can be used, provided that new evidence is produced on time and coverage conditions are revised accordingly. Promote a "lifecycle approach" for Health Technology Assessment (HTA) across all types of biomedical technology, whereby coverage and pricing decisions are not set only once at market entry but regularly re-assessed.

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