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Health technology assessment in Ghana: the development of the process guidelines using evidence-informed deliberative processes

Gavin Surgey^{1,2*}, Brian Adu Asare³ and Rob Baltussen¹

Abstract

Background Health technology assessment (HTA) is increasingly recognised as a critical tool for advancing universal health coverage in Ghana. Despite national health policies emphasising the importance of HTA, the country has historically lacked a formal framework and clear process guidelines to incorporate HTA systematically into healthcare decision-making.

Methods The development of Ghana's HTA process guidelines began in 2019. It was finalised in December 2022, based on the concept of evidence-informed deliberative processes and best practices from functional HTA frameworks in other countries. Key activities involved creating a governance structure, defining decision criteria, and establishing an eight-step HTA process. Capacity-strengthening activities enabled the Technical Working Group (TWG) to participate in developing the guidelines and ensured buy-in at all levels.

Results The resulting process guidelines outline an eight-step framework that provides clear guidance for each stage: topic nomination, selection and approval, scoping and stakeholder engagement, assessment, appraisal, deliberations and recommendations, communication, and implementation. Surveys conducted during the development phase revealed high levels of satisfaction, indicating the enhanced legitimacy of healthcare decisions under the new framework. The guidelines establish a transparent, inclusive, and evidence-informed HTA process in Ghana.

Conclusion Adopting formal HTA process guidelines marks a significant step toward strengthening healthcare decision-making in Ghana, aligning with the nation's universal health coverage goals. By institutionalising HTA within a transparent and participatory framework, Ghana is better positioned to prioritise and allocate healthcare resources effectively, promoting efficiency, equity and sustainability in its health system.

Keywords HTA, Health technology assessment, Decision making, Evidence-informed deliberative process, EDPs, Ghana

*Correspondence:

Gavin Surgey
gavin.surgey@radboudumc.nl

¹Radboud University Medical Center, P.O. Box 9101, Nijmegen
6500 HB, The Netherlands

²Health Economics and HIV and AIDS Research Division (HEARD),
University of KwaZulu-Natal, Durban 4000, South Africa

³Directorate of Pharmacy, Ministry of Health, Accra, Ghana



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Background

In Ghana, as in many other low- and middle-income countries, health technology assessment (HTA) has become increasingly important as the government seeks to achieve universal health coverage (UHC) and improve the quality of sustainable healthcare services.

An early step in Ghana's journey toward institutionalising HTA was a 2016 study on the cost-effectiveness of interventions for hypertension [1], which aimed to show the necessity of evidence-informed decision-making. Subsequently, the importance of HTA has been explicitly recognised in key national policies, including the National Medicines Policy (2017) [2] and the National Health Policy (2020) [3], which highlight its role as a cornerstone for achieving UHC and enhancing the healthcare system. HTA is foreseen to have a broad application in Ghana, including the selection of health technologies, designing benefits packages, determining essential health services, policy prioritisation, and guiding the procurement and pricing of pharmaceuticals and other health technologies [4].

To operationalise its policy objectives, Ghana began developing comprehensive HTA process guidelines in 2019, culminating in its formal launch by the Minister of Health in December 2022 [5].

This paper details the development of these guidelines and their key features. The Methods section outlines the conceptual framework and institutional context underlying the guidelines' creation. The Results section discusses the establishment of the governance structure, decision criteria, and the eight-step HTA process, as well as findings from surveys assessing TWG satisfaction and acceptance. The Discussion section interprets these findings in a broader context of Ghana's health system and of HTA in low- and middle-income countries.

Methods

Conceptual framework

The HTA process guidelines are grounded in evidence-informed deliberative processes (EDPs). EDPs are practical and stepwise approach for HTA bodies to enhance legitimate health benefit package design based on deliberation between stakeholders (individuals with an interest in the outcome of the HTA process final decision) [6] to identify, reflect and learn about the meaning and importance of values, informed by evidence on these values. In EDPs, the concept of legitimacy is translated into four elements: stakeholder involvement ideally operationalised through stakeholder participation with deliberation; evidence-informed evaluation; transparency; and appeal. The underlying idea is that HTA bodies integrate these elements into the various steps of their processes [7–9].

This approach builds on Daniels' Accountability for Reasonableness (A4R) framework, which provides four conditions essential for legitimate and fair decision-making in healthcare resource allocation [10]. The A4R framework requires that decisions meet conditions of publicity, relevance, appeals, and enforcement - principles that are systematically embedded throughout Ghana's HTA process.

Institutional context

The development of the HTA process guidelines was coordinated by the HTA Secretariat which operates within the Technical Coordination Directorate, Ministry of Health (MOH). It was a collaborative effort involving international and local project teams, with technical and financial support from ADP/PATH. Additional partners contributed to the guideline development and supported specific assessments and capacity-strengthening steps

throughout the process - these included the Health Intervention and Technology Assessment Program (HITAP) and the International Decision Support Initiative (iDSI) network, comprising the London School of Hygiene and Tropical Medicine (LSHTM) and the Norwegian Institute of Public Health (NIPH).

Development process

The development process included numerous engagements via in-person and virtual workshops and led to the establishment of governance structures, the decision criteria, and the creation of an eight-step HTA process applied to each health technology.

The resulting HTA process framework was developed *de novo* by the authors and finalised in August 2021 through an in-person workshop with the TWG, building upon Ghana's existing experience and international best practices. Alongside the development of the guidelines, several HTA pilot projects and assessments were conducted to inform the development of the process guidelines and research on understanding the capacity, knowledge, and attitudes towards HTA [11–13].

The process built upon Ghana's existing experience, particularly its review process of National Standard Treatment Guidelines and Essential Medicines List and the establishment of its National Medicines Selection Committee [14].

Surveys on the HTA process

Two surveys were developed to evaluate the HTA guideline development process and assess acceptance, answering two research questions: (1) Did the development approach successfully engage the TWG and produce satisfactory guidelines? and (2) Does the TWG find the resulting HTA process legitimate, understandable, and suitable for Ghana's context? The second survey design was informed by the experiences and lessons learned

from the pilot HTA projects, which identified key areas requiring feedback, including process clarity, engagement effectiveness, and implementation feasibility.

The surveys aimed to assess the validity of applying the EDP framework within Ghana's setting, and their outcomes provided essential insights into both the robustness of the guideline development methodology and the guidelines' readiness for nationwide implementation.

Further details, including the questions, can be found in Additional Files 3–5.

Results

Composition of governance structure

The development of the HTA process guidelines began with a workshop in September–October 2019 in Aburi, Ghana, involving the project team and 16 local delegates from the MOH, including the Director of Technical Coordination. During the workshop, participants developed a proposed governance structure and defined roles and responsibilities for each committee.

The MOH officially adopted the Terms of Reference (summarised in Box 1) in October 2019, designating a governance structure for HTA comprising three entities. The National HTA Steering Committee (named Steering Committee from here onwards) oversees HTA activities, provides final recommendations to the Minister of Health and is comprised of 17 members. The National HTA Technical Working Group (TWG) handles the technical aspects, including the development and collection of evidence and includes 28 members. These bodies are supported by the HTA Secretariat, involving five core members.

The TWG is divided into four subgroups: assessment, appraisal, appeals, and capacity strengthening. TWG members can participate in multiple subgroups, with the exception that no member can simultaneously be in both the assessment and appraisal subgroups to maintain functional separation.

Box 1 Objectives, roles and responsibilities of the Ghana HTA structures (Summarised) [15]

National HTA Steering Committee: The Committee is responsible for providing final recommendations to the Minister of Health on the investment or disinvestment of health technologies based on an evidence-informed deliberative processes. Recommendations of the HTA steering committee are made based on the collation and interpretation of HTA research undertaken by the TWG. The HTA steering committee is responsible for appointing a TWG as and when necessary.

Roles and responsibilities

- Oversee all HTA activities within Ghana
- Identify the areas for HTA (Topic Selection)
- Adopt and implement a prioritisation framework
- Financial Sustainability to ensure resource mobilisation and allocation of funds for HTA activities
- Maintain governance in relation to HTA
- Ensure monitoring & evaluation of HTA implementation

National HTA Technical Working Group: The primary role of the TWG is to gather or generate evidence to provide the steering committee with preliminary recommendations on whether and how the (new) health technology should be implemented within the health system.

Roles and responsibilities

- Identify and propose the areas for conducting HTA (HTA Agenda)
- Undertake HTA on agreed upon topics.
- Human resource development
- Ensure effective communication on HTA
- Collaboration with relevant stakeholders for data

Secretariat: The Secretariat supports the effective implementation of HTA activities, assisting the Steering Committee and Technical Working Group with information gathering, report management, and meeting coordination.

Roles and responsibilities

- Develop and implement country work-plans for HTA activities
- Coordinate HTA activities
- Manage administrative and technical coordination
- Facilitate implementation of HTA recommendations
- Promote collaboration
- Ensure transparency by periodically reporting HTA implementation and decisions to governance structures

Definition of decision criteria

Three virtual workshops were held between September 2020 and August 2021 with the TWG on the development of decision criteria. The selection process involved i) a review of policy documents on national health strategies and the existing criteria used for the development of the EML; ii) a survey to assess TWG preferences of each criterion; and iii) an in-person workshop to introduce the assessment criteria and its use in decision making. For each of the criteria, the official definition from the HTA Glossary (<http://www.htaglossary.net>) was used, including measurement levels for each criteria using the EVIDEM framework [16]. Specific decision criteria were selected for each step in the HTA process—topic selection, assessment, appraisal, and deliberation. These are

detailed below. Further details of the approach can be found in Additional File 1, and all criteria are listed and defined in Additional File 2 Table S4–8.

The eight step HTA process

The engagement process resulted in an eight-step HTA framework (Fig. 1) [5] designed to provide systematic guidance for health technology evaluation in Ghana. This process accommodates both full HTA studies and rapid HTA assessments, with the latter having compressed timeframes and relying primarily on existing evidence rather than generating new evidence.

This eight-step approach aligns with international HTA frameworks and has been adapted for Ghana's context. While this framework does not explicitly define triggers

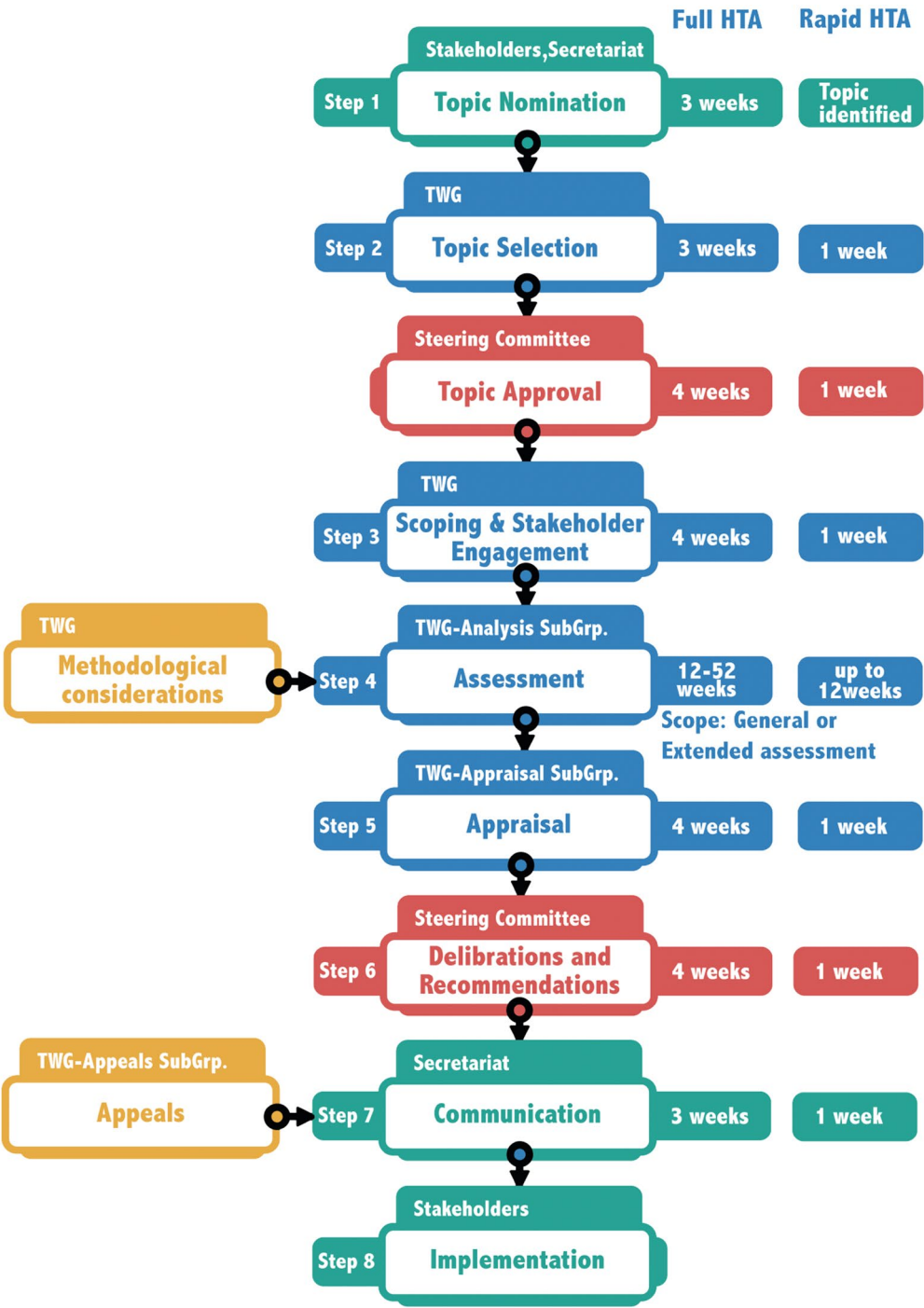


Fig. 1 Eight-step HTA process

for Rapid HTA, the process can be initiated when there is urgency, uncertainty about clinical or economic value, and/or low budget impact related to a health technology. Rapid HTAs would typically be requested to quickly evaluate evidence on clinical effectiveness, cost-effectiveness, and implementation considerations. This expedited approach aims to facilitate timely, evidence-informed decision-making while efficiently managing limited

resources and mitigating risks associated with adopting unproven or potentially costly technologies.

The following sections provide detailed descriptions of each step in the process:

Step 1: Topic nomination

With the large volume of health technologies available, assessing each one individually is impractical. Therefore,

the steps of “topic nomination” and “topic selection” are essential for prioritising the assessment of the most impactful technologies.

Topics may be nominated to the HTA Secretariat by any government body such as the MOH, National Health Insurance Authority (NHIA), Ghana Health Service (GHS) etc. In the future, the aim is to issue a formal call to industry and civil society for topics. The Secretariat is required to collect and compile all proposed topics and present them to the TWG.

Step 2: Topic selection

In topic selection, nominated topics are reviewed and selected based on the following criteria: the number of potential users, advantages over existing treatments, (anticipated) cost-effectiveness, economic burden of the disease (including budget impact and potential economic impact), and equity considerations for marginalised groups. In the process, the TWG submits a prioritised list of topics to the National HTA Steering Committee for approval.

Step 3: Scoping and stakeholder engagement

Scoping establishes the specific objectives, research questions, and PICO framework (population, intervention, comparator, and outcomes) for conducting each individual HTA study. The step also creates an explicit opportunity for stakeholder engagement, ensuring that the HTA study aligns with diverse needs and addresses key clinical and policy questions. In this step, the HTA Secretariat develops a work plan with the TWG assessment subgroup, including timelines.

Step 4: Assessment

The assessment of health technologies includes various activities: systematic evidence collection on the selected decision criteria; synthesising evidence, including quality analysis; independent review of evidence and reporting findings and implications. The assessment is the responsibility of the TWG assessment subgroup. They may also co-opt expertise from in-country or international multi-partner space to support the assessment in the case of a more detailed analysis (extended assessment) needing to be undertaken.

The assessment stage is split into two, depending on the level of analysis needed. The first part (general assessment) involves a review of existing evidence which needs to be conducted for all technologies under assessment taking a minimum of 12 weeks. In most cases this will be sufficient to inform a decision regarding the inclusion (or exclusion) of a technology. If the first part is not sufficient, and a higher level of analysis is needed, then an extended assessment can additionally be conducted

taking a maximum of 52 weeks. In the assessment, evidence is to be collected on the following decision criteria: Criteria within general assessment:

- Rapid review of evidence on effect (efficacy and/or effectiveness)
- Review of economic evidence
- Budget impact estimation
- Feasibility considerations
- Severity of the disease
- Equity considerations

Criteria within extended assessment

- Systematic review of evidence on efficacy/effectiveness
- Economic evaluation calculation
- Budget impact analysis

The assessment team is then required to develop an HTA report and complete a technology assessment summary template (Additional File 2: Table S6).

Step 5: Appraisal

The prioritisation of health technologies is a two-stage process, whereby the TWG Appraisal subgroup conducts the first step (known as appraisal and described here), and the Steering Committee carried out the second step (known as the deliberation step and described below).

In the appraisal step, the TWG Appraisal subgroup interprets the assessment results by classifying the performance of a health technology into three classes (Table 1).

Each criterion is graded as high (green), medium (amber), or low (red) performing (scoring) for their measurement level, i.e., if a health technology was clinically effective and better performing than its comparator, it will have a high (green) performing measurement level. Similarly, if it is not clinically effective and worse performing than its comparator it has a low (red) performing indicator.

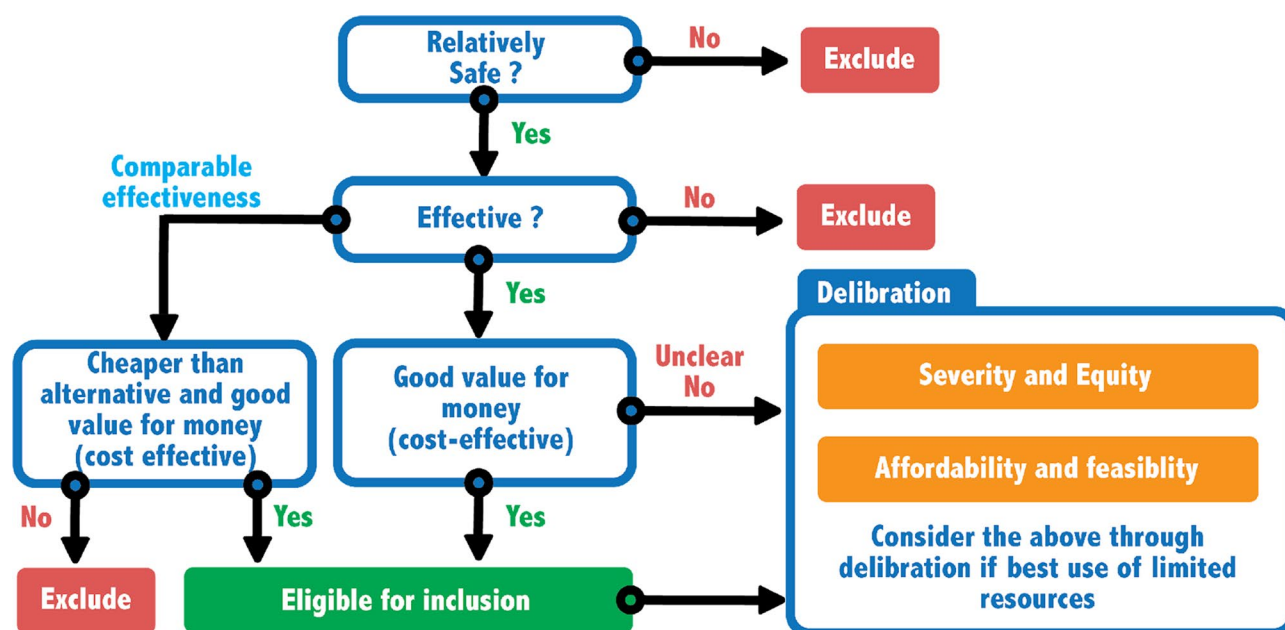
Once each criterion is classified, the decision tree flowchart (Fig. 2) supports the development of TWG Appraisal subgroup's recommendation to the Steering Committee. This recommendation relates to technical aspects and value for money of the health technology under evaluation. The additional factors such as severity, equity, affordability, and feasibility are the focus of the Steering Committee in the next step.

Step 6: Deliberation

The National HTA Steering Committee interprets the recommendations from the TWG Appraisal subgroup in the context of the broader health system and attainment

Table 1 Criteria classification options

Criteria	Classification options		
Relative Safety	1. Better than comparator	2. No difference	3. Worse than comparator
Effectiveness	1. Effective (better than comparator)	2. Comparable effectiveness	3. Not effective (worse than comparator)
Level of evidence: Effectiveness	1. Very confident	2. Moderately confident	3. Limited confidence
Cost-effectiveness	1. Highly cost-effective	2. Moderately cost-effective	3. Not cost-effective
Level of evidence: Cost-effectiveness	1. High level of evidence	2. Moderate level of evidence	3. Low level of evidence
Severity of disease	1. Severe	2. Moderately severe	3. Not severe
Costs	1. Less expensive	2. Equal cost	3. More expensive
Budget Impact (BI)	1. Low BI	2. Moderate BI	3. High BI
Equity	Targets a priority group	Does not target a priority group	


Fig. 2 Decision tree for the inclusion of health technologies

of universal health coverage. Central to this deliberation process is the Steering Committee's responsibility for the interpretation of evidence across multiple decision factors. Each committee member is given a decision framework table to support them in making their recommendation (Additional File 2: Table S8). The decision

framework template contains each of the decision criteria, a narrative description of that criteria, and a space to indicate whether it meets that decision criteria and to give a justification.

The Steering Committee must therefore balance technical evidence against practical implementation realities

and broader health system implications when deliberating. The Chair of the Steering Committee summarises responses from members to give an overall final recommendation for implementation to the Minister of Health.

Step 7: Communication and appeals

The Secretariat is responsible for communicating the outcomes of previous steps in a final HTA report and policy brief, ensuring these are available to relevant stakeholders.

The right to appeal provides stakeholders with an opportunity to request a review of the decision by presenting new arguments or evidence. The present framework does not specify which stakeholders can appeal, however, this would likely include manufacturers, insurers, healthcare providers, and patient groups - any party with a direct stake in the outcome. The TWG Appeals subgroup evaluates these appeals to determine if there are grounds for reassessment. A detailed process for this is still under development.

Step 8: Implementation of the decision

This step refers to the implementation (or de-implementation) of the health technology in the health system. It may require activities such as planning of financial and human resources, infrastructure and medicine, but also adaptation of treatment guidelines. This involves implementing agencies, including the Ghana Health Service, the National Health Insurance Authority and health professional organisations.

First experience with implementation of the process

Alongside the development of the HTA guidelines, several steps were already implemented in practice. In March 2020, the TWG convened in a workshop to nominate potential topics for HTA. Subsequently, in May 2020, a virtual HTA TWG meeting was conducted to select topics, establish research questions, and develop a framework for the HTA process guidelines (steps 1–2). A virtual HTA meeting took place in February 2021, where the TWG worked on developing research protocols for HTA concerning the NHIA reimbursement list (scoping step).

In parallel with the guideline development, HTA pilot projects—such as those on COVID-19 vaccine deployment, Burkitt lymphoma reimbursement [17], and prioritisation of antihypertensive medicines—were conducted to inform the process guidelines and provide the country with practical experience Box 2. First experience with implementation of the process

Review process and capacity strengthening activities

In March 2022, the guidelines were shared externally for feedback from three organisations—HiTAP, iDSI comprising LSHTM and NPIH—with reviews provided by a total of 10 individuals. Each comment was compiled and documented in a concordance table and tabled for discussion with the Ghana team. In total, approximately 150 comments were each considered noting the action taken in a consolidated table.

Capacity strengthening activities were further undertaken to support the implementation of the guidelines. In October 2023, a workshop by HiTAP aimed to strengthen capacity on topic selection and HTA communication [18].

In February 2024 an in-depth workshop on the appraisal step took place to strengthen the capacity of TWG members to appraise and synthesise evidence.

Surveys related to the HTA process

Survey 1 results: survey on satisfaction with the development process

The first survey was conducted alongside the capacity strengthening and writing workshop of the HTA guidelines, in August 2021. Of the 15 TWG members who participated in the workshop, 9 (60%) completed the survey. Respondents were overall positive on the process used (Table 2), which involved capacity strengthening using EDPs for benefit package design followed by a guideline drafting session.

Survey 2 results: survey on acceptance and satisfaction

The second survey aimed to assess acceptance and readiness for implementation and was conducted in February 2024 during a workshop. Out of the 15 TWG members who participated in the workshop, 13 (87%) completed the survey. Respondents were overall positive in all areas with the majority agreeing on understanding the decision criteria, governance structure, and individual steps involved in the HTA process (Table 3).

Additional feedback highlighted the need for training to improve involvement, as well as the importance of incorporating input from the general public beyond those already within the health sector. In many instances, there was a comment suggesting room for improvement in stakeholder involvement and transparency aspects.

Participants either agreed (10) or strongly agreed (3) that the process and methods have improved compared to previous approaches for decision-making in Ghana. Similarly, respondents were satisfied with the outcomes of the development of the HTA process either agreeing (8) or strongly agreeing (4).

Box 2 Case Study on Burkitt's Lymphoma and Covid-19 HTA**Burkitt Lymphoma(15)**

The MOH requested a HTA to inform decision on reimbursement of Burkitt Lymphoma (BL), as it represents a significant health issue with approximately 1,300 new cases annually, making it the most common childhood cancer in the region. Despite its prevalence and status as a leading cause of cancer-related deaths in children aged 0-14, childhood cancers, including BL, were not covered by the National Health Insurance Scheme (NHIS). The objective was to evaluate the clinical and economic impact of reimbursing BL for Ghanaian children under 15 years, comparing a scenario with NHIS coverage (intervention) to one where children lack insurance coverage (standard of care).

The topic showed potential for selection as literature indicated clinical benefits over the existing approach and potential cost-effectiveness. Treating Burkitt's lymphoma aligned with the Ghana's economic equity criteria, as cervical cancer receives reimbursement, while the same drugs for children did not.

A stakeholder mapping was conducted to identify key participants, who were then invited to meetings to share insights on managing childhood cancer. This included a workshop on 17 August 2021, with 58 stakeholders invited to attend.

The TWG collaborated with the Norwegian Institute of Public Health (NIPH) to conduct cost-effectiveness and budget impact assessments. After reviewing the evidence, the TWG appraised the services before forwarding recommendations to the steering committee, which aligned with the assessment findings. The final Burkitt Lymphoma report was launched on 26 April 2022 at a workshop in Ghana.

Box 2 (continued)**Covid-19**

The HTA secretariat received a request from National Immunisation Technical Advisory Group (NITAG) through the MOH Technical Coordination Directorate for an assessment of the national vaccine deployment plan. An assessment was required to guide Ghana's response and vaccine planning, along with cost estimates for COVID-19 (C19) vaccine deployment. Recognising the financial challenges tied to vaccinating large populations, it was crucial for Ghana to plan and secure sufficient financing for the C19 National Deployment and Vaccination Plan (NDVP).

The topic was prioritised as C19 has a large potential user base for the health technology. There were indications of potential cost-effectiveness, as well as a substantial economic burden of the disease and potential economic impact on households.

For the Stakeholder engagement, a workshop was organised in February 2021 including various stakeholders from the MOH, National Immunisation Technical Advisory Group (NITAG), Ghana Health Service (GHS), UNICEF, WHO, Expanded Program of Immunisation (EPI), National Health Insurance Authority (NHIA), University of Ghana School of Public Health, etc.

For the assessment, the TWG, in partnership with the School of Public Health, University of Ghana, and other stakeholders, utilised the C19 Vaccine Introduction and deployment Costing (CVIC) tool to estimate the cost of C19 vaccine deployment. Costing Scenarios were developed encompassing different combinations of vaccine products, delivery modalities, and time periods, aiming to estimate the overall cost of vaccination and determine the optimal mix of delivery strategies.

Table 2 Survey 1 results - stakeholder satisfaction with the HTA guidelines development process

The exercises were useful for my understanding of benefit package design	4.4
The workshop on EDPs helped me understand the HTA process	4.6
The process, as an approach to developing a benefits package, is an improvement over the previous mechanism in Ghana	4.1
I am satisfied with the outcomes of the development of the process guidelines in Ghana	4.6
The guideline process was well organised	4.3
It is clear to me how the process guidelines will be used moving forward	4.2

Table 3 Survey 2 results - stakeholder acceptance and satisfaction of the HTA guidelines process

HTA Process Step	Fully Understand	Suit-able for Ghana	Stakeholder Involvement	Public Documentation
Decision Criteria	4.2	4.2	4.1	3.8
Governance Structure	4.2	4.2	4.2	3.8
Topic Nomination	4.2	4.2	4	3.8
Topic Selection	4.3	4.3	4.2	4.2
Scoping and Stakeholder Engagement	4.2	4.2	4.2	4.2
Assessment	4.2	4.2	4.2	3.9
Appraisal Process	4.2	4.2	4.2	4.2
Deliberation	4.2	4.2	4.2	4.2
Appeals and Communication	3.6	3.7	3.6	3.6

Discussion

Ghana's HTA process guidelines align with their health policy objectives by providing a systematic framework to prioritise resource allocation, promote evidence-based decision-making, and improve overall health outcomes.

The HTA process guidelines represent a significant advancement over earlier decision-making processes in Ghana by introducing a formalised framework that ensures systematic prioritisation and evaluation of health interventions.

The strengths of the guidelines are as follows: First, institutionalising a structured HTA process ensures

consistency in decision-making. By formalising the process, the guidelines improve accountability. Second, incorporating the EDP framework and having a broad stakeholder involvement strengthens the legitimacy of the HTA process. Third, the guidelines define clear governance structures that clarify the roles and responsibilities of the Steering Committee, Technical Working Group, and Secretariat, ensuring accountability. Another strength of the guidelines is their adaptability. By taking into account funding availability and urgency, the framework allows for both rapid and comprehensive HTA assessments.

Ghana's HTA framework demonstrates strong alignment with international best practices while maintaining local relevance. The guidelines incorporate evidence-informed deliberative processes and stakeholder engagement principles emphasised in global HTA development efforts [9, 19, 20]. The dual rapid/comprehensive assessment pathway mirrors successful approaches in similar contexts, including the Philippines' HTA framework [21] and Thailand's HITAP institutionalisation model [22], which demonstrate how middle-income countries can effectively balance thoroughness of assessment with implementation efficiency. Ghana is among the few African countries to establish published methodological guidance for national-level HTA [23], positioning it as a potential model for other countries in the region seeking to institutionalise evidence-informed health decision-making processes.

The successful development of the HTA guidelines can be attributed to several critical factors. Strong leadership and government support, particularly from the Ministry of Health, alongside high-level champions in the process, were pivotal. This commitment demonstrates the government's dedication to evidence-informed policymaking and achieving UHC. Collaboration with international partners, such as ADP/PATH, HITAP and iDSI, further contributed to the development process by providing technical assistance and facilitating capacity strengthening. Stakeholder engagement throughout the guideline development process ensured broad consensus and acceptance. The successful piloting of HTA applications, including assessments of Burkitt's lymphoma treatments and COVID-19 vaccines, demonstrated the practical utility and adaptability of the framework, further solidifying stakeholder confidence in the process. These factors have previously been identified as having an influence on the institutionalisation of HTA [24, 25].

While the HTA guidelines represent significant progress, several challenges must be addressed to ensure their long-term success. Sustaining political commitment and institutional stability is crucial for effectively implementing the HTA framework. Changes in political leadership or shifts in policy priorities could undermine

the achievements made thus far. Furthermore, financial and human resource constraints pose substantial barriers to the full implementation of the guidelines. Expanding training programmes to cultivate HTA expertise at both national and local levels, alongside developing funding strategies to guarantee the financial sustainability of HTA processes, will be vital. Another key consideration is balancing inclusivity with decision-making efficiency. While stakeholder engagement is essential for legitimacy, it can also slow down the process and increase some of the costs. Ongoing capacity strengthening and technical support for stakeholders will be necessary to maintain an inclusive yet efficient HTA process.

Future Directions and Recommendations

To ensure Ghana's continued success, communication with the public to enhance transparency should be continued. Clear communication about HTAs objectives, processes, and outcomes will reinforce legitimacy and help stakeholders understand its role in promoting equitable and efficient healthcare. Engaging communities and addressing public concerns will build acceptance of the HTA ecosystem.

Additionally, ongoing monitoring and evaluation of the HTA process are essential for identifying areas that require improvement or adaptation. Regular reviews of the framework will enable stakeholders to assess its relevance and effectiveness in meeting policy objectives and addressing healthcare priorities. This includes collecting data on the impact of HTA recommendations and analysing stakeholder feedback. Continuous refinement of the HTA process will ensure that it remains relevant, responsive, and aligned with the evolving needs of the health system.

Conclusion

HTA is a vital tool in Ghana's efforts to achieve UHC. By institutionalising HTA processes through the development of structured guidelines, Ghana has established a robust framework for evidence-informed decision-making that prioritises efficiency, equity, and sustainability in healthcare resource allocation. The HTA guidelines not only enhance the transparency and accountability of health policy decisions but also serve as a model for other low- and middle-income countries seeking to institutionalise health decision-making processes in their healthcare systems.

With continued commitment to capacity strengthening, stakeholder engagement, and adaptive improvements, HTA in Ghana has the potential to significantly advance the nation's healthcare goals and inspire similar initiatives in comparable contexts worldwide.

Abbreviations

ADP	Access and Delivery Partnership
C19	COVID-19
EDPs	Evidence-informed Deliberative Processes
EML	Essential Medicines List
EPI	Expanded Program of Immunisation
GHS	Ghana Health Service
HITAP	Health Intervention and Technology Assessment Program
HTA	Health Technology Assessment
iDSI	International Decision Support Initiative
LSHTM	London School of Hygiene and Tropical Medicine
MOH	Ministry of Health (Ghana)
NDVP	National Deployment and Vaccination Plan
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
NIPH	Norwegian Institute of Public Health
NITAG	National Immunisation Technical Advisory Group
PICO	Population, Intervention, Comparator, and Outcomes
TWG	Technical Working Group
UHC	Universal Health Coverage
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12962-025-00703-y>.

Supplementary Material 1: Additional file 1 – decision criteria title. This describes the approach to defining the decision criteria, including 1. A review of policy documents, 2. A survey to assess preferences and 3. A validation of the criteria chosen. The results of the criteria surveys are additionally presented

Supplementary Material 2: Additional file 2 – HTA process guideline templates. The guideline templates contain the criteria for topic selection (step 2), the criteria for assessment (step 4), the technology assessment summary template (step 4). The criteria

Supplementary Material 3: Additional file 3 – survey 1 questions and results

Supplementary Material 4: Additional file 4 – survey 2 questions

Supplementary Material 5: Additional file 4 – survey 2 questions

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Author contributions

GS conceptualised and developed the idea of the process guidelines. BA provided technical inputs to the main conceptual ideas and was responsible for process management. GS wrote the process paper. RB contributed to the main conceptual ideas and provided critical feedback and editing. All authors reviewed and inputted on the guidelines developed.

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Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

This work was conducted at the request of the Ministry of Health in Ghana to develop process guidelines for Health Technology Assessment. The work does not require information that is detrimental or harmful to those who participated in the process. Participants were informed about the purpose, analysis and dissemination process when completing the survey (in person and at the start of the written survey). For the above reasons, the research team did not request ethics approval for the conduct of the work. As part of the survey, participants gave written (electronic) informed consent for the use and publication of the data.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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