



## Data Literacy Toolkit: Empowering Interpretation of Industry Claims and Health Economic Models

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### Purpose

This document aims to assist in the critical assessment of data provided by sources external to the hospital or health-system. The examination of claims is essential for ensuring functionality, benefits, and expectations are clearly interpreted prior to onboarding and implementation of a new product or service.

**Table 1** describes considerations for the assessment of vendor claims.

**Table 2** describes considerations for the assessment of health economic models.

For additional information, please review other documents in the ASHP Resource Center.

**Table 1: An Approach to Examine the Validity of Vendor Claims**

Questions	Considerations	Additional Resources
How is the claim stated?	<ul style="list-style-type: none"> <li>Is there unnecessary use of superlatives?</li> </ul>	
Does the claim align with industry and/or regulatory best practices?	<ul style="list-style-type: none"> <li>Is the claim compliant with relevant regulations (e.g. HITECH, HIPAA) and industry standards?</li> <li>Is the claim supported by an underlying validated theory or framework?</li> </ul>	<ul style="list-style-type: none"> <li>ASTP/ONC Vendor Evaluation Matrix Tool: <a href="#">here</a></li> <li>ASTP/ONC Vendor Meaningful Use Compare Tool: <a href="#">here</a></li> <li>APA App Evaluation Model: <a href="#">here</a></li> <li>ISPOR PICOTS-ComTeC Framework for evaluating digital health interventions: <a href="#">here</a></li> </ul>
What data was used to support the claims?	<ul style="list-style-type: none"> <li>Internal (e.g. R&amp;D data, customer testimonials, case reports, human factors data)?</li> <li>User guides (functionality claims only)?</li> <li>White papers?</li> <li>Externally published data from research studies?</li> <li>Practice guidelines or standards?</li> <li>Are sources referenced on their website and materials?</li> </ul>	
Is the vendor willing to share the data if not publicly available?	<ul style="list-style-type: none"> <li>Some data cannot be shared due to patents and/or trade secrets</li> </ul>	

	<ul style="list-style-type: none"> <li>• Is the data provided in a way that allows for easy analysis and validation?</li> </ul>	
<p>Is the data published in a peer-reviewed journal?</p>	<ul style="list-style-type: none"> <li>• What level of evidence is it?</li> <li>• Is the journal reputable?</li> <li>• Does the data from the publication match the claim being made?</li> </ul>	<ul style="list-style-type: none"> <li>• See Evidence Pyramid <a href="#">here</a></li> </ul>

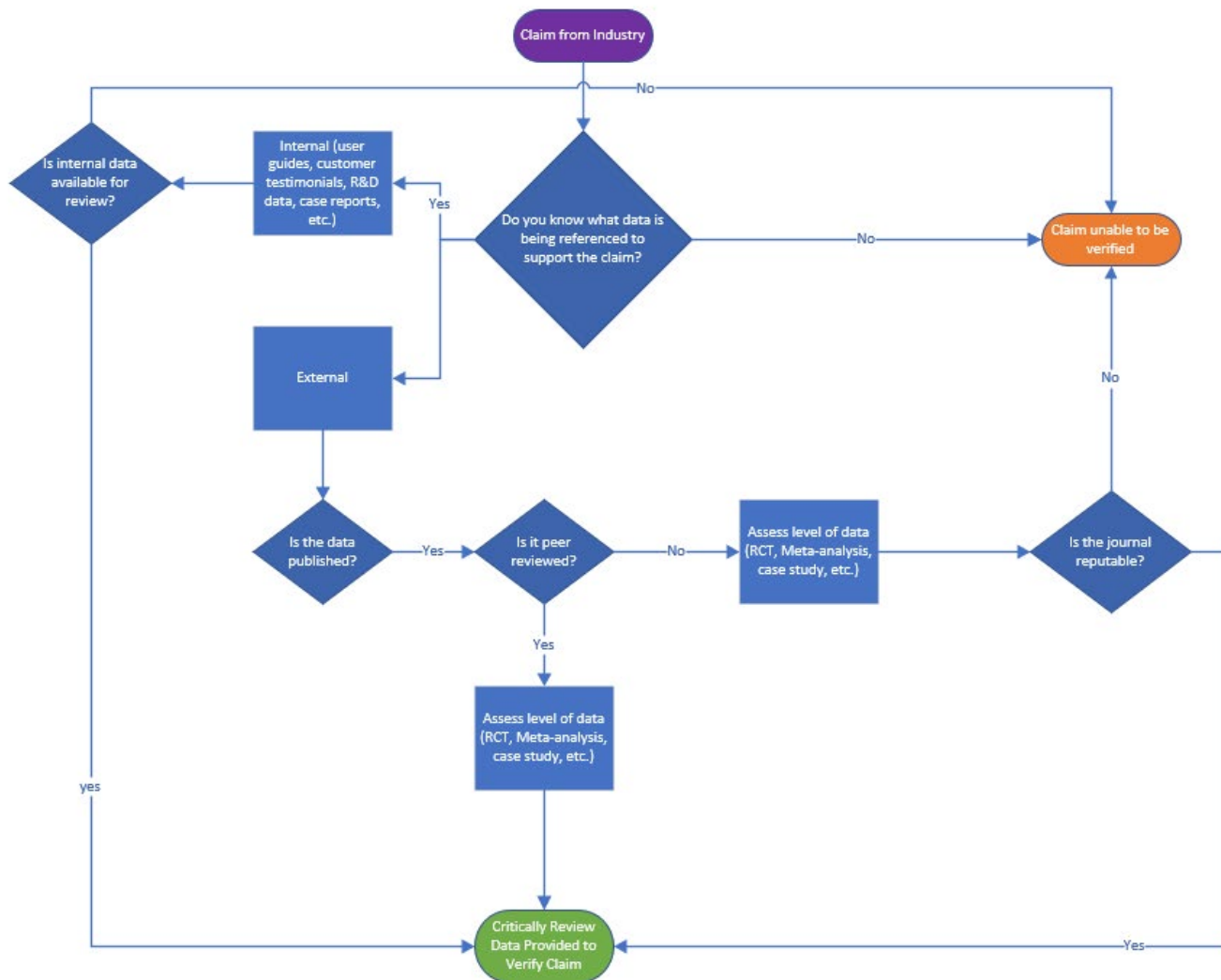


Figure 1: Flow chart to aid in examining validity of vendor claims

**Table 2: An Approach to Examining the Validity of Health Economic Models**

Questions	Considerations	Additional Resources
Who is presenting the Health Economic Model?	<ul style="list-style-type: none"> <li>• HEOR or Medical Affairs team?</li> <li>• Commercial team (sales/marketing)?</li> <li>• Implementation or support team (post-sales support)?</li> </ul>	
What type of economic model is it (i.e. Cost Benefit Analysis, Return on Investment, etc.)?	<ul style="list-style-type: none"> <li>• Are the guidelines followed for development of the model?</li> </ul>	<ul style="list-style-type: none"> <li>• ICER (Institute for Clinical and Economic Review, a highly respected non-profit health technology assessment (HTA) organization in the United States, similar to NICE or CADTH but independently funded via grants and donations): <a href="#">here</a> <ul style="list-style-type: none"> <li>○ Table 1 provides an overview of Reference Case Elements that can help guide a thorough assessment of health technologies</li> </ul> </li> <li>• ISPOR guidelines for Budget Impact Analyses: <a href="#">here</a></li> <li>• ISPOR guideline modeling best practices: <a href="#">here</a></li> <li>• Second Panel on Cost-Effectiveness in Health and Medicine Recommendations for Cost-Effectiveness Analysis: <a href="#">here</a></li> </ul>
What is the underlying data used in the model?	<ul style="list-style-type: none"> <li>• Is the data available for review?</li> <li>• Were industry claims data incorporated into the model?</li> <li>• Are there peer-reviewed literature sources supporting claims data?</li> </ul>	<ul style="list-style-type: none"> <li>• See Validity of Vendor Claims decision tree (<i>Figure 1</i>)</li> <li>• ASHP Glossary of Statistical Terms: <a href="#">here</a></li> <li>• CHEERS 2022 Reporting Standards: <a href="#">here</a></li> </ul>



<p>What assumptions are made within the model?</p>	<ul style="list-style-type: none"><li>• Is it easy to tell what the assumptions are and is the reasoning clear?</li><li>• Do these assumptions make sense?</li><li>• How long before value is recognized?</li><li>• How long will investment support the team before additional investments are needed (hardware/software updates)</li><li>• Is it scalable? Will the organization outgrow the current solution?</li><li>• How much site-specific customization does the technology allow? Are related costs for customization and maintenance factored into the model?</li><li>• Are there other dependencies (e.g., additional vendors, server upgrades) that are not included in the model?</li></ul>	
<p>What are the hard (tangible data) and soft values (freeing up time for staff, etc.) discussed?</p>	<ul style="list-style-type: none"><li>• Are these items applicable to your setting?</li></ul>	
<p>Can the ROI model be tailored using your health system data?</p>	<ul style="list-style-type: none"><li>• Can metrics used in the model be measured at your site?</li><li>• How easy is it to tailor the ROI model to your health system data? Does it require a large lift on your part?</li></ul>	

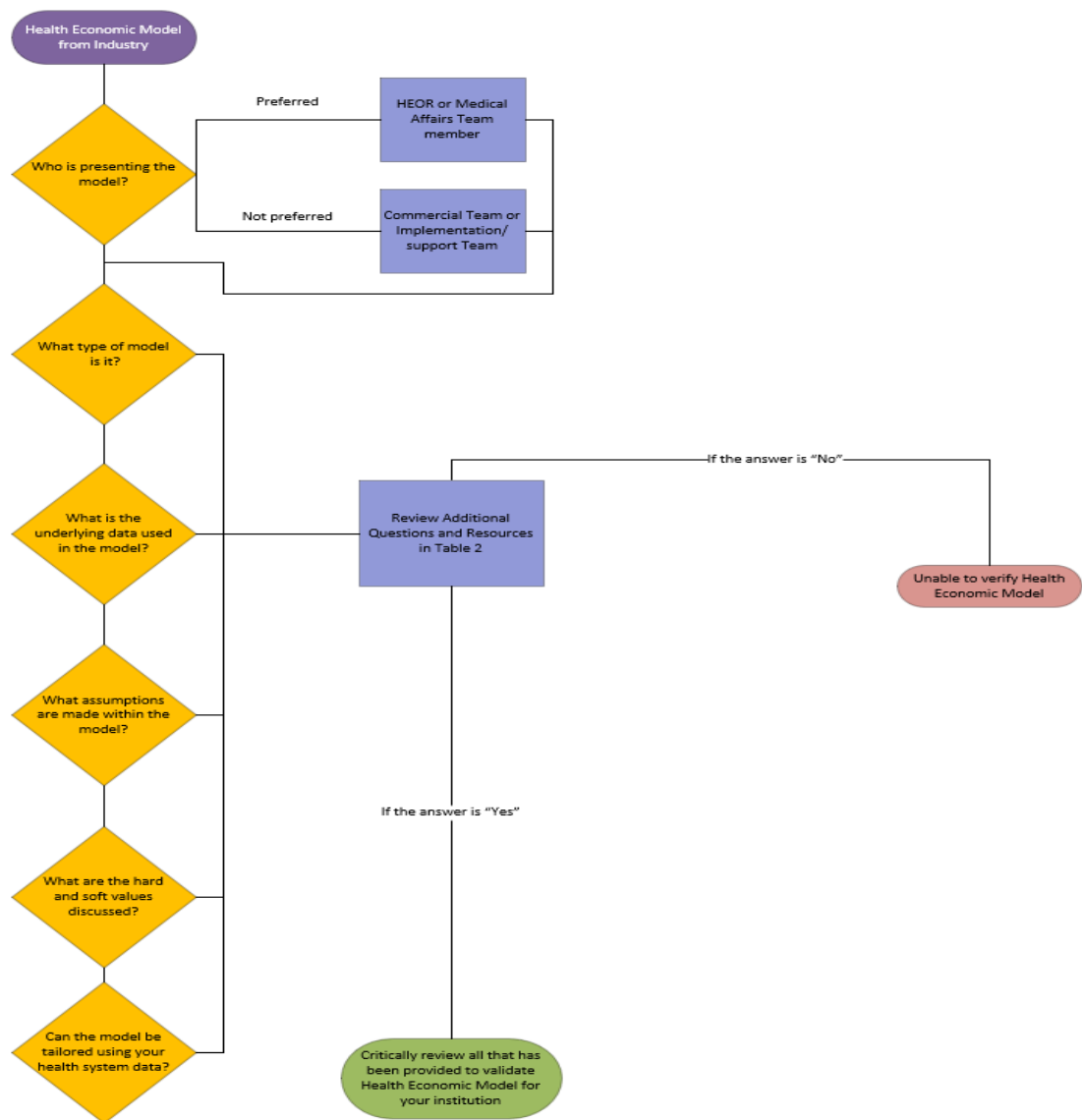


Figure 2: Flow chart to aid in examining validity of Health Economic Models



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