

# Understanding of HTA core competencies through national agencies manuals review

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## Introduction

Several national and international HTA agencies have published methodological documents containing information about skills useful to produce HTA. Many institutions have highlighted that certain skills are needed to effectively contribute to the creation of an HTA report in a multidisciplinary team. Not all professionals of the HTA team must be experts in every subject, but an efficient dialogue between components is necessary to obtain a complete, homogeneous and consistent document in every section. In order to evaluate information about competences coming from the main national and international agencies, a research was carried out on the HTA manuals published on the websites of all HTA agencies worldwide.

## Methods

Two review authors selected topics for eligibility and checked against the inclusion criteria independently. Any disagreement will be resolved by consensus or consultation with a third independent researcher. The inclusion criteria of these manuals were: 1. Include "HTA" in the title or it is satisfactorily explained in the introduction that the manual is focused on HTA 2. Focus on any technology type (drugs, devices, diagnostics, etc. or any combination) 3. Teaches about best practices HTA in general (not specific to a single jurisdiction or agency, not a survey/description of how HTA being currently used) 4. Purpose is to build human resource capacity in HTA 5. Available in English, French, Spanish or Italian

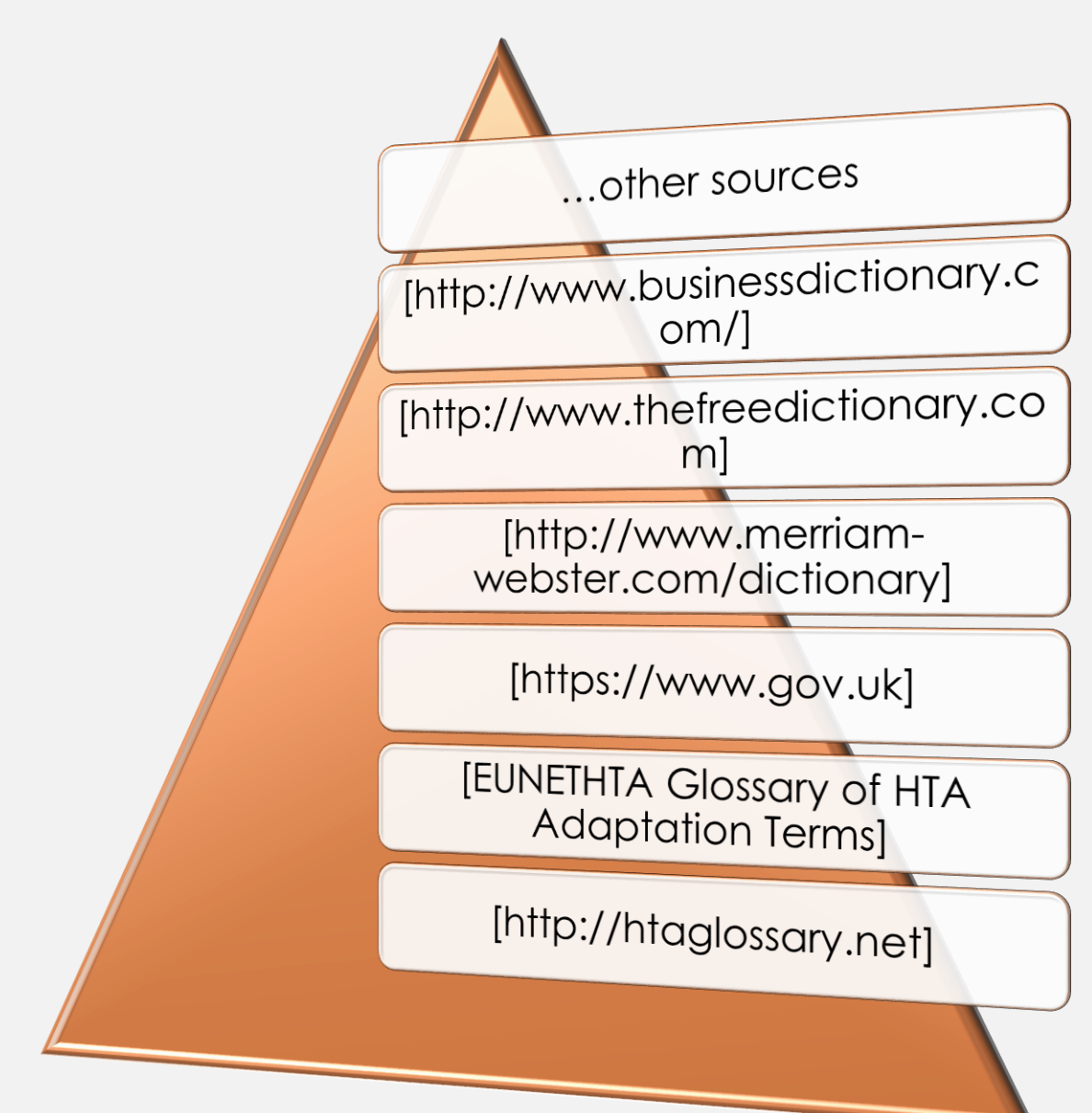
## Results

We selected 6 manuals on a total of 24. We selected from Europe: EUnetHTA Handbook on HTA Capacity Building of 2008 and the HTA core model published in 2014. From Denmark we selected the Health Technology Assessment Handbook published in 2008 published by DACETHA. From KCE of Belgium we analyze the manual Search for Evidence & Critical Appraisal Health Technology Assessment (HTA) published in 2007. The fifth manual is American, from the Lewin group of the USA, the HTA 101 introduction to health technology assessment. The last manual is Italian, published in 2015 from AGENAS, the Italian public institution for the regional health services. The original name of the manual is "Manuale delle procedure HTA".

HTA MANUALS		
Area	Competencies (manuals)	Concepts and definitions
Economic area	1. Literature searches and scientific databases(1-6)	1. Systematic and explicit approach to the identification, retrieval, and bibliographic management of independent studies (usually drawn from published sources) for the purpose of locating information on a topic [http://www.nlm.nih.gov/nichos/jitsc1.html]
	2. Assessing and avoiding the several types of publication bias (1, 2, 4-6)	2. In research, bias occurs when "systematic error is introduced into sampling or testing by selecting or encouraging one outcome or answer over others [http://www.merriam-webster.com/dictionary/bias]
	3. Types of economic analysis(1, 2, 4-6)	3. The comparative analysis of the costs and consequences of two or more possible options. Depending on whether the consequences are expressed as monetary, physical or qualitative variables, the analysis may be a cost-benefit, cost-effectiveness or cost-utility analysis.
	4. Cost assessment (1, 2, 4, 5)	4. A detailed examination of the estimated costs for a particular project under consideration to assess validity, reasonableness, consistency and accuracy of these costs [http://htaglossary.net]
	5. Opportunity costs(2, 4, 5)	5. The value of a resource in its best alternative use [ec.europa.eu/regional_policy/sources/docgener/.../cost/guide02_en.pdf]
	6. Cost-utility analysis and utility measures(1, 2, 4, 5)	6. An economic analysis that expresses effects as overall health improvement and describes how much it costs for some additional utility gain (e.g. cost per additional quality-adjusted life-year). [http://community.cochrane.org/glossary/5fletterc]
	7. Perspectives(2, 4, 5)	7. The viewpoint chosen for a given analysis, including a viewpoint of society, the government, the health care system or the payer. [http://htaglossary.net]
	8. Willingness to pay(2, 4, 5)	8. The amount consumers are prepared to pay for a final good or service [ec.europa.eu/regional_policy/sources/docgener/.../cost/guide02_en.pdf]
	9. Discounting(2, 4, 5)	9. A mathematical process used to bring future costs and benefits to their present value [http://htaglossary.net]
	10. Modelling in economic analysis(2, 4, 5)	10. In the health field, a mathematical model of the clinical pathway that represents the key choices and the consequences of the options studied. [http://htaglossary.net]
	11. Sensitivity analysis and statistical handling(2, 4, 5)	11. A means for evaluating the robustness of a mathematical model by testing a plausible range of estimates of key independent variables to determine whether such variations result in meaningful changes in the model's results [http://htaglossary.net]
	12. Budget impact analysis (1, 2, 4, 5)	12. An evaluation of the financial impact of the introduction of a technology or service on the capital and operating budgets of a government or agency. [http://htaglossary.net]

Example of the manuals analysis for the economic area with details about competencies, related concepts and definition with different sources

For each competency we added a definition for a better understanding of the reader. The most used source has been the website HTA glossary.net. When the definition of htaglossary was not enough complete, we decided to use the eunetha glossary of hta adaptation terms. Then, other sources for definitions were www.gov.uk, merriam webmaster.com/dictionary, the freedictionary.com and for economical topic businessdictionary.com.



## Conclusions

The analyzed manuals did not cover all the dimensions of HTA analysis in an equal and standardized way. The Ethical, Legal, Social, Environmental and Organizational aspects were lacking in some of the programmes, on the contrary clinical and economic aspects were substantially included. The realization of the project was really challenging for the following critical issues: Information difficult to retrieve, difficulties to find key information in agencies webpages, lack of contacts of key people. On the basis of the information retrieved, it would be good to define core competencies for HTA.