

# Comparing Health Technology Assessment (HTA) and Health Impact Assessment (HIA), using examples of “borderland” topics

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## Context, objectives

Among the efforts to assist health (and health-related) policy-making by providing formal “**assessments**”, HTA and HIA deserve special attention

Although both approaches aim to assist decision-makers, up to now there is very limited interaction with each other.

This poster aims at comparing the two “**cultures**” of HTA and HIA, for mutual benefit.

Criteria	Tab. 1 Selected commonalities of HTA and HIA “cultures”
1. Scope and objectives	<ul style="list-style-type: none"> <li>Scope of topics broad, encompassing <b>multiple domains</b> of specific professional expertise</li> <li>Overall goal: <b>enhancing health</b>, and avoiding waste of resources</li> <li>Specific: identifying short- &amp; long-term, positive &amp; negative <b>implications</b> of decision-making</li> </ul>
2. Procedures, methods, tools	<ul style="list-style-type: none"> <li>Aiming at systematic use <b>of best available evidence</b></li> <li>Involving <b>comprehensive</b>, multi-disciplinary, structured and transparent procedures</li> <li>Striving for “systems” perspective, consideration for <b>multiple interactions and outcomes</b></li> </ul>
3. Infrastructure	<ul style="list-style-type: none"> <li>Developing “<b>assessment cultures</b>” incl. dedicated institutions, conferences, trainings</li> <li>Funded “Research, Development, Innovation” (R&amp;D&amp;I) <b>projects</b></li> <li>Infrastructure of <b>handbooks, guidelines, databases</b></li> </ul>
4. Diffusion	<ul style="list-style-type: none"> <li>Considerable valuation by <b>European Commission, World Health Organization</b></li> <li>Covered in publications of <b>European Observatory</b> on Health Systems and Policies</li> <li>Ongoing <b>international diffusion</b></li> </ul>

	Criteria	HTA	HIA
1. Scope and objectives	Scope of issues	any (health / medical) <b>technologies</b> in broad sense, incl. hardware, structures, and health care processes	any <b>policies, plans, programs, projects</b> outside or (less often) inside the health care system (with health technologies not being a typical topic for HIA); any exposures
	Geographic scope	mostly national	(inter-)national, regional, local, city, ward
	Objectives	<ul style="list-style-type: none"> <li>to identify “reasonable” health technologies</li> <li>evaluation of benefit and cost; to contribute to effective allocation of resources</li> </ul>	to assess the (positive, negative; unintended, intended) impact on health from socio-environmental perspective, typically comparing variants of policies, etc.
	Subtopics	<ul style="list-style-type: none"> <li>health-<b>efficacy</b> &amp; safety of h’ technology (prevention,diagnostics...)</li> <li>economic impact / <b>efficiency</b></li> <li><b>ethical and legal</b> aspects</li> </ul>	<ul style="list-style-type: none"> <li><b>health impact</b></li> <li><b>equity impact</b></li> <li>economic impact (optional)</li> <li>impact on ecology, sustainability</li> </ul>
	Timing	<ul style="list-style-type: none"> <li>after introduction of technology</li> <li><b>later than HIA</b> - since HTA requires base of published scientific studies</li> </ul>	<ul style="list-style-type: none"> <li><b>earlier than HTA</b> - can be based on expert/stakeholder opinion-taking only</li> <li>variants: prospective (ex-ante); concurrent; retrospective (ex-post)</li> </ul>
	Target sectors, target groups	<ul style="list-style-type: none"> <li>Sector: <b>health care</b></li> <li>Groups: government / Department of Health: health politicians &amp; decision-makers; Public Health Service; purchasers, industry, researchers, general public</li> </ul>	<ul style="list-style-type: none"> <li><b>Sectors: multiple</b>, e.g. transport, land use, employment, health care</li> <li>Groups: government: politicians &amp; decision-makers of various sectors; administration, incl. planners, regulators; investors; general public</li> </ul>
2. Procedures, methods, tools	Legal basis	Germany: Book V of Social Code (Sozialgesetzbuch V)	Germany: Public Health Service acts; Environmental Impact Assessment (EIA) legislation
	Commissioners	typically, Ministries of Health	variety of local, regional etc. agencies
	Overall procedure	highly structured and <b>standardized</b> (algorithmic) <b>procedure</b> , with strong focus on published scientific studies	<b>procedures vary</b> , depending on topic, resources, investigators’ preferences and combining different sources
	Methods	<ul style="list-style-type: none"> <li>tradition of systematic literature searches in multiple sources, with detailed documentation of search strategy and results</li> </ul>	<ul style="list-style-type: none"> <li>literature reviews of variable intensity</li> <li>in “full-scale” HIA: participation (of stakeholders, public) espec. in issue-framing, scoping, interpretation</li> <li>application of existing information to the specific situation, espec. by expert opinion-taking and/or modeling</li> </ul>
	Special features	<ul style="list-style-type: none"> <li>“<b>Horizon scanning</b>” of emerging technological developments</li> <li>“<b>Early warnings</b>”, “<b>Early assessments</b>”</li> </ul>	<ul style="list-style-type: none"> <li>“<b>stand-alone</b>” HIA vs. “<b>Health in other impact assessments</b>”, e.g. EIA, Strategic Environmental Assessment (SEA)</li> <li><b>Desktop</b> HIA, <b>Rapid</b> HIA, <b>In-depth</b> HIA</li> </ul>
3. Infrastructure		<ul style="list-style-type: none"> <li>dedicated institutions existing in most industrialized countries</li> </ul>	<ul style="list-style-type: none"> <li>dedicated institutions or departments existing in some countries</li> </ul>
4. Diffusion		<ul style="list-style-type: none"> <li>world-wide acceptance of concept</li> <li>growing diffusions incl. infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>variable endorsement of concept</li> <li>variable diffusion: established in some countries, nearly absent in others</li> </ul>

## Methods

From appropriate databases (DAHTA/DIMDI and HIA gateway), examples of HTAs and HIAs were collected which refer to topic areas in the “borderland” of both approaches, incl. health services, prevention and health promotion. Using a set of criteria, the examples are analyzed and the results consolidated into “**commonalities**” and “**differences**” of the two approaches.

## Results

The **HTA examples** refer, e.g., to: overweight prevention in adolescents and children; (cost-) effectiveness of behavioural strategies in the prevention of cigarette smoking; interventions for enhancing medication compliance / adherence; newborn hearing screening. The **HIA examples** refer, e.g., to: paid sickness legislation; university hospitals trust action plan; agriculture and food policies; national stroke strategy. Comparing HTAs and HIAs, both commonalities and differences were identified (Tab. 1, 2).

## Preliminary conclusions

- Both HTA and HIA are broad approaches, involving comprehensive, multi-disciplinary, structured procedures with related intentions, i.e. providing **evidence-based support for policy formation and decision-making**
- Existing **differences** may be due to a range of reasons, incl. accidental differences in historical development, or well-founded adaptations to specific objectives and environments
- A specific strength of **HTA**: systematic and transparent **exploitation of published scientific study results**. With proper adaptations, HIA might benefit from developing similar procedures
- A specific strength of **HIA** is the **adjustable mix of methods** incl. stakeholder participation and modeling; it is conceivable that HTA may benefit from adaptations of this mix.

This is “work in progress”, subject to several limitations; incl. the fact that all HTAs considered are of German and all HIAs of UK/US origin.

**Links and references:** on reverse side of handout, and available from the authors