

Health technology assessment

Health technology assessment (HTA) (1), also known as healthcare technology assessment or medical technology assessment, is a form of policy research that systematically examines short- and long-term consequences of the application of a health technology, a set of related technologies, or an issue related to technology. The goal of HTA is to provide input to decision making in policy and practice. The essential properties of HTA are this orientation to decision making and its multidisciplinary and comprehensive nature.

Health technologies are the drugs, devices, procedures, and the organizational and support systems within which health care is delivered.

HTA takes a broad view of technology and of technological changes and carries out analyses of such issues from several perspectives. The field includes studies of ethical and social consequences of technology; factors speeding or impeding development and diffusion of health technology; the effects of public policies on diffusion and use of health technology and suggested changes in those policies; and studies of variation in use of technologies. The most prominent part of HTA is to determine, insofar as possible, the benefits and financial costs of a particular technology or group of technologies. The main goal of such studies is to improve “value for money” in health care.

Given this broad context, HTA is not defined by a set of methods but by its intent. A technical assessment of a pharmaceutical or medical device carried out by a program as part of a regulatory decision can be considered HTA. Likewise, an ethical analysis concerning gene therapy done to clarify its implications before deciding whether to provide it can be considered an HTA. The most frequent activity in HTA is a synthesis or systematic review of available information, especially on efficacy and cost-effectiveness, to assist different types of policy decisions. A prospective randomized clinical trial or prospective cost-effectiveness study done for policy reasons, as in the Netherlands or the United Kingdom, is also

a technology assessment. On the other hand, clinical research or even clinical trials done solely for the purpose of increasing scientific knowledge are not technology assessments.

Given the wide scope of HTA, it is not a discipline or a field. In fact, HTA is a systematic interdisciplinary process based on scientific evidence and other types of information. It involves physicians and other clinicians, economists, social scientists, public health and health services researchers, engineers, and ethicists. Increasingly, the general public and its representatives are involved in HTA.

The goal of HTA is change. It is not research for the sake of knowledge. HTA should help to demonstrate problems and potentials in disease control. This means that topics chosen for assessment must be important to society. Information should be timely and should be presented in a form useful to the intended audience, whether these are national policy makers and politicians, hospital administrators, clinicians, or the general public. Because it is well known that the results of information dissemination are limited, the issue of implementation of HTA results is becoming an important part of the tasks at hand. Implementation involves not only dissemination of information, but attention to factors that promote change, such as physician preferences, patient preferences, regulation, and financial incentives. A recent preoccupation in several countries concerns how to affect technological change through health insurance coverage decisions.

Technology assessments are useful to a wide range of decision makers in health care, including government policy makers, insurance companies and other payers, industry, planners, administrators, clinicians, and patients.

Despite its policy goal, HTA must always be firmly rooted in science and the scientific method. The process of technology assessment must be carried out with integrity, and the results must be valid.

REFERENCE

1. Quoted from Banta HD, Werko L, Cranovsky R, et al. Introduction to the EUR-ASSESS report. *Int J Technol Assess Health Care*. 1997;13:133–143.

The EUR-ASSESS Steering Committee and other members of the project spent three years working on this statement, which is a consensus statement accepted by all the members of the project. All authors were provided this discussion of HTA taken from the EUR-ASSESS report. They were asked to accept this discussion and not try themselves to describe HTA.