

## Health Technology Assessment: a field still maturing!

With this issue's focus on Health Technology Assessment (HTA), the Italian Journal of Public Health has tackled an area of growing importance in today's increasingly complex health care delivery systems. As the articles in this issue demonstrate, HTA has grown from a relatively narrow technical focus to a form of policy research underway in dozens of countries.

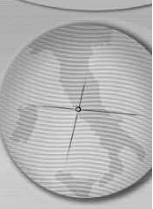
Since its inception just over three decades ago, HTA has evolved through three distinct phases: the machine, the disease and the delivery mode, with the third of these still underway. As the focus has shifted from machines to disease conditions to service delivery approaches, HTA has drawn on research and modes of discourse from a growing variety of disciplines. Thus, despite the evolution that continues, HTA remains, at its core, both multidisciplinary and pragmatic, for the strengths of HTA arise from its integration of the efforts of actors in multiple, diverse disciplines with a view to producing knowledge that will assist decision-makers.

The machine phase was marked by a focus on the technical performance of health technologies, often embodying innovative approaches to diagnosis or treatment of human illness. Given the newness and costliness of many technologies selected for assessment, a significant emphasis was placed on assessing the safety of these devices. Imaging technologies were the subject of assessment in many settings, perhaps in part because devices such as the CT scanner produced remarkable visual results that were heralded as affording breakthroughs in diagnosis and treatment. One need only look through the programs of early HTA conferences to see the emphasis on high cost, infrastructure-intensive health technologies that was the hallmark of the machine period.

With the growing search for health benefits as a consequence of technology use and the rise of evidence-based medicine, HTA's focus shifted to disease conditions in a nutshell, moving from diagnosis alone (does this technology do what its promoters say it will do?) to prognosis (does the use of this technology yield a desirable change in a health outcome?). Focusing on outcomes of technology use expanded the ranks of contributing disciplines as epidemiologists, economists, and ethicists all became important contributors to HTA products. Furthermore, as HTA products became more complex, their potential contribution to decision-making also became more complex. Thus, while HTA appears to have had its greatest impact at the macro or policy level (e.g. assessing the relative effectiveness and costs of one imaging technology over another as an input to a planning process for capital budgeting at a health system level), its emphasis on outcomes should be as important to institutional or meso-level and practitioner or micro-level decisions.

The move to the third phase, assessing how health services are organized and delivered, still ongoing, appears to be driven, in part, by the uncompleted work of knowledge transfer (i.e. increasing the use of HTA results in decision making at all levels). HTA's policy-level impact has been demonstrated in several studies, particularly so where the HTA organization is requested to complete an assessment whose target audience is the same as that making the request. Influencing institutional decisions and practitioner behaviour has been more challenging and the growing HTA focus on how services and technologies are delivered can be understood as a response to the recognition that the bulk of resource allocation decision making occurs outside the policy realm, within regional health authorities, hospitals, departments and in examining rooms, clinic offices and operating theatres.

As HTA continues to evolve through this third phase, the multidisciplinary inputs, the focus on pragmatic knowledge creation, and the importance of



outcomes remain vital to the field. With evolution has come new opportunities to examine more intensively how information is used in the meso- and micro-level decisions that play increasingly prominent roles in determining how effectively resources invested in health yield improvements in health and other outcomes that matter to patients and their families. By understanding more about how these decisions are made, opportunities to create knowledge relevant to these decisions will arise and continue to propel innovation in the field of HTA.

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