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Health technology assessment: A necessity in post-sanctions Iran while implementing the health transformation plan

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Abstract

Iran's health system is in the serious need of reconstructing its infrastructures, a significant part of which is health technologies. An untapped market of 80 million people will be open to technologies of the world through Iran's entry to post-sanctions era. Health Technology Assessment projects date back to nearly eight years ago in Iran. However, given the current circumstances, its application for selecting technologies is needed more than ever.

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Health Technology Assessment (HTA) is a double-edged sword. On the one hand, global knowledge matures and large investments are spent on the development of knowledge in medical sciences. The public and the service providers have a tendency to use modern means and technologies. Experience point to the specialization in training and medical sciences services, the growth in the number of graduates of specialty and subspecialty areas, the growth in the demand for the use of technologies, which are unnecessary in several cases (1). The induced demand results in imposing unnecessary costs on the patients and the society. Financing these costs imposes a heavy burden on the budget of the countries, and provokes inequalities in utilizing healthcare services. On the other edge of this sword, there are examples as Statins to lower lipids (2) and Tamoxifen to treat the early-stage breast cancer (3). At some point in time, these medicines were not used despite the fact that they proved effective based on the evidence present at that particular period. Now the main concern is the following question: What health technology or health interventions are useful and which one has a priority over the other? The answer to this question points to a set of issues, which has justified the need for Health Technology Assessment (HTA) (1).

For the first time, the HTA emerged in Northern America and Europe in the 1970s along with accelerating epidemiological (the incidence of non-communicable and chronic diseases causing high disability), demographic (aging population) and technological (the emergence of new technologies) transitions. At first, the domain of the HTA was mainly related to machinery technologies, but nowadays it involves a wide range of health interventions. These items include all actions taken which are associated with medical and health methods and interventions, equipment, materials, medicines, structures and organization activities related to health and services supporting health processes (1).

In 2008, a program to develop the HTA system for Iran was proposed in the Ministry of Health and Medical Education (MoHME). Within this program, mission, objectives, obligations and the method of establishing the HTA system in Iran were clarified (4,5). The HTA Office in the

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MoHME has begun its work since 2010. The projection of a unit corresponding to this office at the provincial level (medical sciences universities) was one of the important actions taken. Therefore, in addition to the national levels, the capacity of the HTA can be utilized at provincial levels. To train required human resources to perform HTA, various orientation courses have been held in this field as workshops by this office since 2008. The first round of the admission of students to a Master's degree program began in Iran in 2010 in the School of Public Health at Tehran University of Medical Sciences. Since 2010, Iran's National Institute of Health Research has been ordered to conduct HTA projects by the HTA Office, which was done through calls for proposals (4). More than 50 projects were conducted until the end of 2015; however, no evidence is available on the extent to which these projects have been effective.

The importance of the HTA in national policymaking is so profound that it was proposed within the General Health Policies notified by the Supreme Leader in May 2014. The HTA has been clearly mentioned, along with two objectives including "The Establishment of an Evidence- Based Service Provision System" and "The Control of Induced Demand and the Correction of Consumption Pattern" (6).

Iran's new administration that began its work in 2013 has considered health as a priority within the social domain. Over the past several years, public resources for health were not increased in accordance with the general health expenditures, resulting in an increased out of pocket expenditure of the public, worn-out infrastructures of service provision, and a situation in which the service provision units and the available technologies did not meet the public's needs. Thus, in the same year when the new government took office, they increased the public resources for health services to remove the emerged shortage of medicines. Subsequently, the budget of the MoHME was increased by more than 50%, which led to the development of Health Transformation Plan in the next fiscal year. Firstly, eight intervention packages were mainly implemented in public hospitals since May 2014. Eight months later, a change was also made in the relative valuation of services. An increase in the health insurance coverage was another part through which the coverage reached more than 97% within a short time interval. The primary healthcare part of the Health Transformation Plan was developed, the most important part of which was the coverage of services on the margin of cities, the reconstruction of the primary services system in terms of facilities and equipment in rural areas, tribes, towns and the provision of active services in urban areas (7). However, at the beginning of 2016, Iranian officials in MoHME estimated that there was a need for more than 115,000 hospital beds, while more than 80 hospitals were constructed over 30 years ago.

During the sanction times, although sanctions included some technologies that did not include essential medications, the lack of Iran's banking relations with other countries influenced the public's health (8). Now in the post-sanctions era, a country with a population of 80 million and an increasing need for new technologies, which did not have the possibility of accessing such technologies for 12 years, will be an untapped market for health technologies. These two issues, including the country's need for the reconstruction of healthcare infrastructures (the Health Transformation Plan and the approval of investment by the government) and lifting the sanctions will lead to the extensive presence of technologies in the country. However, the finale of the HTA has come to the point that its official structure is within the curative domain of the MoHME. The insurance schemes, which are not the responsibility of the MoHME, do not implement strategic purchasing of services and they act passively in purchasing health goods and services. The Council of Insurance does not use rigorous scientific principles to limit decision-

making about selecting supported diagnostic and treatment methods (9). Clinical guidelines have been developed, but for several reasons they are not used in practice (10) and are not a basis for the service provision (11). In terms of structure, decision-making about importing medicines and equipment by the MoHME is done in another sector, not by the HTA office, and it does not depend on the outputs of HTA projects. As a result, the application of HTA in practice is still far-reaching. Undoubtedly, increasing knowledge and improving the attitude of the policy makers, managers and producers of HTA reports are necessary, but not sufficient, requirements for the practical use of HTA in Iran. The worthy initiative by the Medical Journal of the Islamic Republic of Iran in publishing HTA projects in Iran provides a good context for an increase in the awareness and empowerment of the academic society of Iran to promote the utilization of HTA, particularly during this time when the need for the HTA is felt more than ever.

Conflict of Interest

Both authors are members of the educational accreditation committee for HTA in Iran. The first author is the head of the directorate, which supervises the HTA office in the MoHME. The second author is running the National Institute of Health Research, which is responsible for commissioning HTA projects on behalf of Curative Affairs of the MoHME. Both authors declare that they have no financial conflicts of interests.

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