

*Editorial*

## **The Necessity for Training Specialized Human Resources in Pharmaco-economy**

Mahmoud Mosaddegh

Besides theoretical enthusiasm and knowledge-driven curiosity, there is no doubt that the growth in health and medical expenses during the last three decades and that this growth has exceeded the economic growth rate of every country in the world. In fact, these have been the major factors pushing the health economy and its' affiliated disciplines. Health care expenses are increasingly growing all around the world due to demographic transition, new disease patterns and presentation of new technologies, as well as increasing expectations. Modern technologies form an important force, increasing health care expenses. In many low-income countries, the educated urban middle-class population is increasingly growing, while this class has a world of hidden information and expectations. This group of citizens put governments under pressure, in order to provide them with the most modern and expensive technologies (from the newest type of drugs to transplantation) and allocate a larger share of the national budget to a few elite institutes.

If once the most advanced countries were able in the early 1970s to cover all their health and medical expenses just by an allocation of 4 to 5 percent of their national revenues, now it is not the case at all. Among others, entrance of modern and very expensive technologies, including drugs, into the domain of health care have resulted in the growth rate of health expenses to exceed the growth rate of national revenues, naturally leaving a great impact on the supplication of financial resources for governments, and thus, governments have entered a new challenge called health care expenses in the last two decades. Drug expenses, which are around 50% of the medical expenses for out-patients and around 30% for in-patients, form the major part of challenge encountered in the health care expenses. Today, the world is not like that of the 1950s, when it was possible to rescue millions of lives just by cheap antibiotics and vaccines. Today's world is the world of monoclonal antibodies, which could reduce the possibility of a MS attacks, by a few percent, serving to lower an annual expense of \$20,000 per patient. Since financial expenses of health care, and in particular drug expenses, influence health care decision marker's choice of treatment and drugs, it is necessary to provide these decision markers with economic reasons, so as to help them with an adoption of appropriate national polices.

Alongside with the increase in healthcare and drug, expenses facing governments and general public, two new phrases have also been coined in the domain of healthcare. These are "evidence-based medicine" and "evidence-based health policy". In brief, these two phrases suggest that any drug or medical interference and/or policy-making is justifiable, if only it's basic evidence own scientific standards and statistical reliability. All these factors, could increase health expenses, and make treatment methods and/or drugs reflect their true effectiveness and efficiency, both interms of a medical as well as an economic point of view. Establishment of the health economy discipline and consequently the pharmaco-economy, discipline both aim to train forces who can respond to economic questions in the field of health and medicine. Health economics, in general, analyses the supply and demand for health care and provides a structure for understanding decisions and their consequences. However, pharma-economics, in particular, adopts and applies the principles and methodologies of health economics to the field of pharmaceutical policy (supply and demand for medicines).

Considering the financial turn-over of pharmaco-economy in I.R. Iran, amounting to more than \$1 billion or around 10,000 billion Rials, lack of specialized human resources capable of management

on one hand and capable of responding to economic medicinal questions on the other hand, as well as increased drug expenses and limitedness of financial resources, all justify the necessity for the foundation of pharmaco-economy discipline, in order to train individuals specialized in economy of medicine. Hence, as the dean of the school of pharmacy at Shaheed Beheshti University of Medical Sciences, I have focused on the establishment of pharmaco-economy major at the Ph.D level. Furthermore, I have compiled the proposal and filled in the related forms and have the faculty and university approval, respectively, and consequently applied to the health ministry for a final study and approval, so that pharmacoeconomy-specialized human resources would be trained for the universities, health ministry, pharmaceutical industries, importers and suppliers of medicines, insurance companies and organizations and other stock holders. Considering Iran's membership in the WTO, lack of such specialized individuals could inflict losses on the country, which may not be compensated. This major can not only fill the gap existing in the country due to the lack of such experts, but also fill the same gap existing in I.R. Iran due to the lack of such experts, it could also fill the gap existing in the region, because of the lack of pharmacoeconomy experts.

I hope to see the day when this major is established in the country.

*Dr. Mahmoud Mosaddegh is currently working as an associate professor of pharmacognosy and the dean of School of Pharmacy, Shaheed Beheshti University of Medical Sciences. He is also the president of the Iranian Traditional Medicine and Materia Medica Research Center of Shaheed Beheshti University of Medical Sciences. He can be reached at [mmosaddegh@itmrc.org](mailto:mmosaddegh@itmrc.org).*