

# Reflections on the role of health economics units regarding national health care systems

Reflexões sobre o papel das unidades de economia da saúde no âmbito de sistemas nacionais de saúde

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## Abstract

This text aims to introduce some reflections on the role and relevance of health economics units (HEUs) regarding national health care systems. The starting points are the core aspects of this knowledge field and its contribution to health care management, to give rise to considerations on the role and relevance of such units. Matters such as the health care managers' and political leaders' knowledge on health economics, the need for HEUs to take simultaneous action at various levels in the organization of a qualified multidisciplinary technical body, as well as the technical and political nature of the work, their possibilities and limits for action, their aspects, and their relationship with external research groups. Finally, the work of a specialized internal health economics team is one of the means to qualify the decision-making process in public health care organizations, to optimize the use of resources and their proper equitable allocation.

**Keywords:** Health Economics; Health Care Systems; Public Health Care Policies; Public Administration.

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## Resumo

O objetivo deste texto é apresentar algumas reflexões sobre o papel e a relevância das unidades de economia da saúde (UES) no âmbito de sistemas nacionais de saúde. Parte-se dos fundamentos deste campo de conhecimento e de sua contribuição à gestão em saúde para tecer considerações sobre o papel e a relevância dessas unidades. São discutidas questões como o conhecimento dos gestores da saúde e lideranças políticas sobre economia da saúde, a necessidade de atuação transversal da UES na organização e de corpo técnico multidisciplinar qualificado, assim como a natureza técnica e política do trabalho, as possibilidades e limites para sua atuação, seus aspectos e a relação com grupos externos de pesquisa. Por fim, ressalta-se que o trabalho de equipe interna especializada em economia da saúde constitui um dos meios para qualificar o processo de tomada de decisão nas organizações públicas de saúde, visando à otimização do uso dos recursos e à equidade em sua alocação.

**Palavras-chave:** Economia da Saúde; Sistemas de Saúde; Políticas Públicas de Saúde; Administração Pública.

## Introduction

Nowadays, one of the big challenges national health care systems face regarding financial sustainability in the system considering the rising demand for health care services and technologies, in a way to ensure the access to them as prescribed by the legal and health care guidelines of each country.

Factors such as the increased life expectancy at birth and the consequent aging of the population, the increased prevalence of chronic non-communicable diseases, new technologies arising, and the actions from companies in the health care industrial complex (health-care related productive sectors in Brazil) have been pointed out as having increased expenditures in health care systems (Zucchi; Del Nero; Malik, 2000; Smith; Newhouse; Freeland, 2009; Ke; Saksena; Holly, 2011). Since the 1970s, the countries that are part of Organization for Economic Cooperation and Development (OECD) have observed an average 3,5-point increase in the share of expenses with health care of Gross Domestic Product (GDP) to the point of reaching 6% in 2006-2010, which has put pressure on public budgets, as extra efforts are required to fund initiatives and services (OECD, 2013).

Even though there is concern regarding the situation and initiatives are implemented to ensure resources are used in a more efficient way, that does not become a big problem if the national economy is doing good. However, the reality is different. Since 2008, the economic crisis in several countries has caused the countries' income to shrink, has put more pressure on these budgets, and, thus, on health care expenses.

According to OECD, "in member countries, in average, almost three quarters of health care expenses come from public funding (either from the government or social security funds). The increase in total expenses with health care is consequently guided by public expenditure trends. The strong economic development before the crisis resulted in increased public expenditure with health care, at an average rate of 4%. In 2010, the growth in public expenditure with health care slowed down in many countries, in line with their economic growth" (OECD, 2015).

In this situation, health economics as a discipline that gathers the knowledge fields of economics and health sciences may have a relevant role in the decision-making process regarding health care interventions, policies, and programs, to optimize the use of public funds. It is also of equal importance to discuss the means through which decision makers can have access to this specialized information.

Thus, thinking of the context of public organizations, this paper aims to introduce reflections on the role and relevance of health economics units (HEUs) regarding national health care systems

## The field of health economics

Kenneth Arrow's (1963) exploratory work on the differences between medical care and other products, as a target of economic analysis, has been acknowledged worldwide to give rise to the creation of the health economics discipline (Savedoff, 2004). In the context of the United States of America at that time, in which health care services were heavily commodified, his article gave an important contribution by showing several factors that render the application of competitive market premises not feasible for the medical care market. The author pointed out the existence of uncertainties involving health care and the need for medical care, saying that, in this situation, information and knowledge are turned into commodities which, like any other, have costs to be produced and transmitted, which naturally prevents them from being spread to the whole population, instead being concentrated among those who can make more profits from them.

Regarding the special characteristics of the medical care market, he mentioned the inconsistency and unpredictability in the demand from individuals for these services, besides the considerable likelihood of bodily integrity being affected, as there are some risks of death, jeopardized physical capacity of individuals, and loss or reduction in the productive capacity - recovering from such an unpredictable disease is as unforeseeable as its incidence.

Another important issue of the author was that, in medical care, the products and production activities are identical, which causes the behavior of medical care suppliers to be different from the one

of general businessmen. Consumers cannot test the product, and hence there is an element of trust in their relationships with their suppliers. There is very intense asymmetry in information, as the medical knowledge is a complicated one, and as doctors have much more information regarding treatment consequences and possibilities than patients do.

From a supply standpoint, Arrow pointed out that the existence of barriers newcomers face - such as the limited opening of new schools, high costs for tuition, and medical licenses - increase the cost of medical care. Furthermore, he emphasized uncommon pricing practices are often practiced, such as giving different clients different prices based on their income, and charging for individual services or through upfront payments.

The author called attention to the fact individuals are normally averse to risks and that there is general consensus in that free market solutions for medical services are unacceptable. He defended health care insurance as a means to reduce uncertainties and risks for patients, but highlighted that, in spite of it, there will be gaps, once certain groups such as unemployed, institutionalized, and elderly people were almost always uninsured in the United States in the 1960s.

Finally, Arrow expressed his wish for all his proposals to be judged as contributions to mitigate patients' uncertainties regarding the quality in the medical care they purchase, highlighting that licenses for the practice of medicine and educational standards are social institutions that are designed to prevent the problem of asymmetry in information.

Thus, Arrow presented the flaws in the medical care market and the reasons to adopt measures aiming at mitigating uncertainties for patients, both from the point of view of unpredictability regarding the use of such care and concerning its quality. Obviously his defense claiming that insurance had to be more comprehensively offered took place in the American context, where health care services are highly commodified. However, the market flaws he pointed out also supported the discussion regarding state intervention in this market, justifying its regulation, as done in Brazil (ANS, ANO), and the provision of health care programs by the state, as in

the case of Medicare, Medicaid, and, more recently, from the subsidy for private insurance prescribed by the Affordable Care Act (ObamaCare) in the United States (CMS, ANO; HHS, ANO).

## Contributions from health economics to the management of national health care systems

In the following decades, under a management standpoint, many other contributions were given by several authors, who established more clearly their potential contributions to the field of health economics for health care management. In such aspect, the work of Mooney and Drummond (1982) is highlighted in a series of articles that aimed to provide doctors the discussion about some basic health economics issues based on an analysis of the application of such knowledge in the United Kingdom's National Health System - NHS, to both achieve the health care goals in the best way possible with the available resources and to contribute to the planning and evaluation of health care (Mooney; Drummond, 1982a).

The authors concerned about demystifying the health care professionals' understanding about economics. In this study, they began by explaining that economics does not merely represent a set of analytical tools, but it rather consists fundamentally of a way of thinking of choices; that money exists in an economy to enable different resources to be summed and valued, but that an economy may exist without it. In regards to costs, they said they were important, but no more than the one of benefits, and that the relevant concept is the one of opportunity. Once the resources are finite, applying them into an alternative means not to have them available to obtain the next best alternative. They also clarified that cutting costs is not performed as an end to itself, but rather to maximize health care benefits, which results in increased efficiency.

In another text from the series, the authors emphasized that economists try to compare different resource use patterns with the several patterns of obtained benefits, by applying economics to health care problems (Mooney; Drummond, 1982b). They

argued that once decisions are being made on the distribution of resources, so, at least implicitly, the health care benefits are being valued and that, by using the opportunity cost concept, interventions are adopted whose benefits (advantages) outweigh costs (disadvantages).

In regards to health care funding, they start their text by warning to the fact that choosing a health care system is not separated from political ideologies, and that choosing a funding method is a basic decision all governments need to make (Drummond; Mooney, 1982a). Besides that, funding a system is not only about money, but rather about dealing with a complex relationship involving physicians, patients, institutions, such as hospitals and health insurance providers, as well as the general community (Drummond; Mooney, 1982b). In this context, the differences between what patients need and what is offered by providers are fundamental. They also explained that what patients require is health, and health care is only of the means to improve it. They also remind us at that point the moral risk concept, which, in this case, regards to the overconsumption of health care services due to the fact it is not necessary to pay for this consumption or for additional consumption (that is, when the care provided exceeds the point in which the benefit from another health care unit is smaller than the opportunity cost for the community).

In regards to the demand induced by providers, they call our attention to the fact it can be modulated by the understanding of how incentives and hindrances affect the behavior of the professionals in each system for funding and organizing health care, and this is a fundamental measure to achieve more efficiency.

By discussing some of the means through which economics can be used in the national health care system to support the development of health care policies, Mooney and Drummond (1982c) highlighted the contribution to decision-making in planning health care; the contribution to measure health, emphasizing the natural value of health; and, finally, the evaluation of costs and benefits from the different alternatives, which are applied at different levels to meet health care needs.

To the authors, decision-makers need to consider the opportunity cost and point out the weight of the benefits that regard to the different alternatives. What is often observed is that the need for health care is arbitrarily determined, as are the procedures to fulfill such need. In this context, ignoring basic economic principles leads to lack of efficiency. Improving the economic efficiency may be a mechanism to decrease suffering and deaths (Mooney; Drummond, 1982d). Also according to the authors, economists may subsidize decision-making but not make decisions themselves, once planning and creating health care policies are inevitably subjective and that is up to health care managers (Mooney; Drummond, 1982e, 1982f).

They highlight the use of economic evaluations in planning health care services that, at a national level, for example, can be used in the planning of new hospitals or in the enlargement of existing health care units. Many cost analyses may be useful to support decision-making, as well as cost-benefit analyses, which are employed in the evaluation of needs for clinicians' resources for developing local services (Drummond; Mooney, 1982c, 1982d). Indices may also be created for evaluating the current health care status, aiming to express health or health-disease statuses in terms of physical, mental, and social function levels, to obtain evaluations from individuals regarding the relative value they give to each health status. These indices are useful in valuing the benefits from different alternatives regarding health care. And, finally, they recommended that, whatever the economic evaluation conducted is, it is also important to give special attention to its funding methods, to the interpretation of results, and to the quality of evidence considered in the analysis (Drummond; Mooney, 1982d).

Regarding equality, the authors differ horizontal equality (equal treatment of equal individuals) from the vertical one (unequal treatment for unequal individuals), emphasizing the need to say how equality is understood before deciding how to improve health care measures and the need for health care, once equality, as well as the need for health, is not an absolute or objective concept. It is relative and evaluative.

Regarding the challenges for the future regarding national health care systems, Drummond and Mooney (1982e) listed issues that are still current, such as the insulation arising from the centralization of decisions, the difficulty in making hard choices, the need for clinical and economic evaluation of alternatives, the deficiencies in health economists' contributions due to the lack of professionals in the teams, due to the need to improve their skills and understand social, cultural, and political contexts and factors in which health care decisions are made, besides their difficulty in communicating with health care professionals. Finally, the authors recommend that, to face these challenges, establishing priorities, adopting efficiency incentives, strengthening the role of evaluation, and offering more education in health economics (Drummond; Mooney, 1982f).

These studies had a key role in disseminating basic concepts and in applying health economics to health care management. From a methodological standpoint, Drummond et al. (2007) shed more light on the several types of economic evaluations of health care programs upon publishing a book in which they thoroughly described the procedures used to conduct them, and also discussed the limitations in these techniques and the way to analyze them critically.

Still concerning methods, a systematic review on guidelines to perform economic evaluations of health care interventions has offered, more recently, twelve points to support governments, NHS managers, and health economists in their considerations regarding the methodology of such evaluations in regards to the further challenges in applying health economics to public health care (Edwards; Charles; Lloyd-Williams, 2013). The authors of this review also highlighted the most noteworthy methodological studies regarding the conduction of economic evaluations of public health care interventions (Paynea; McAllister; Davies, 2013; Weatherly et al., 2009; Kelly et al., 2005).

Regarding the application of these methods to health care management, Herrera et al. (2002) defend their use in the planning, in national health care accounts, and in the accounting of health care units. In another study, Kyriopoulos and Tsiantou

(2010) discussed the importance of using health economics tools to establish priorities in health care policies, by studying the relationship between them and the main health care policies and interventions, such as health education initiatives, in a context of financial crisis and economic recession. They concluded that health economics provides a complete methodology to improve the use of scarce resources through the reduction of morbidity and hospitalization, besides gains in terms of human capital.

In the same sense, Mann et al. (2011) introduced WHO's (World Health Organization) latest strategy to strengthen health care systems, considering how health economics research can be used to measure to which extent each strategy goal is accomplished. They pointed out that strengthening health care systems requires making decisions to obtain the best value from the available resources, and that health economics as a science for distributing funds may help assess the costs and benefits of two or more competing choices.

In the Indian context, Nath (2008) defends a similar point of view, emphasizing that in a country with scarce resources and an ever-rising population, with several specific health care needs, health economics has a fundamental role in determining the availability of fair and cost-effective health care services.

However, despite the awareness of the importance of health economics, there is still a long way ahead for information to be produced and effectively used in the creation of policies and programs. Arredondo (1999), in an analysis published on the fields health economics could be applied to and also on its definition and research fields, concluded that, at the time, all countries in Latin America and in the world, in general, were concerned about not using their resources in a way that is equitable and efficient enough. Nonetheless, it found that most funds employed in health care were not being made the most of due to ineffective evaluation and management methods.

Another study that was conducted to evaluate the use of economic analyses by public health care researchers and managers found that lack of experience, funding, time, tools, the data, and the discomfort felt towards the economic theory were

pointed out as obstacles for applying health economics. In this study, among its 294 respondents, 56.9% reported not using health economics at work, or using it very rarely (Ammermann et al., 2009).

Regarding the development of health economics in low and medium income countries, Mills (2014) states that, unlike high-income countries, in which health economics was stimulated by the rising academic interest in the economic aspects of public policies and by the increased national demand for health economists, which stimulated the offer of new educational programs and the increased research funding, in low and medium-income countries, in turn, the users of economic analyses at a global level, such as WHO and multilateral and bilateral supporting agencies, constituted the base for its expansion. According to the author, that gave the development of health economics a close bond with the political trends of these agencies. An example of that has been WHO's discussion on universal health care coverage, which is in the world's political agenda.

In turn, as to Latin America and more specifically Peru, Petrera (2007) offers some pointers and discusses health economics challenges. He highlighted three aspects: a) the concept of equality in the health sectors, emphasizing that one of the core goals of the countries in the region should be seeking for better distribution of resources and capabilities; b) the efficiency for the effectiveness of the health care system, highlighting that, in the case of Peru, the problems in quality of services had been originated in its organization model and administration; and c) the relationship between economic development and health, defending that the development of evidence in favor of the human capital theory and its contribution to social and economic development does not imply a view that is opposed to the development of social rights.

In Cuba, González (2003) pointed out that health economics took a leap in quality in the 1990s with the creation of the Cuban Health Economics Society with representation offices in all of its provinces and of a health economics course by the Public Health Care College that was offered in several of them. The author pointed out that an important issue they discussed at the time was efficiency in

health care systems. As the country went through severe deterioration of its economy, an intense repercussion on the health care system was observed both concerning capital expenses as current expenses, with large health care expenditure cuts.

In Brazil, Mendes and Marques (2006, p. 259-293) introduced a historical perspective on the development of health economics, highlighting the relevance and the pioneer spirit of the Applied Economics Research Institute (*Instituto de Pesquisa Econômica Aplicada*), which created a method to assess the social federal expenditure at the end of the 1980s and published a book in 1995, which was organized by Piola and Vianna (2002), on the concept of health economics and its contribution to health care management. Mendes and Marques also highlighted the creation of the Brazilian Association of Health Economics (*Associação Brasileira de Economia da Saúde*), in 1989, as an important agency to foster discussion in this field, which in 1980s and 1990s' Brazil was very focused on the rising restriction of funds, which was caused by the economic crisis, and on the challenge of implementing Brazil's Unified Health Care System - SUS (*Sistema Único de Saúde*) in gathering population groups in the system in a more efficient and equitable way.

In regards to the institutionalization in the health economics field, the authors state that it gained a more definitive outline with the creation of Brazil's Ministry of Health's Health Economics Department in 2003 and defend the policy that was implemented through this Department, for creation of health economics centers in the health care offices of state and municipal governments as a way to attract professionals and health care workers for the research in this field to be improved and to be developed in a way that is applied to SUS' health care services.

The next section introduces some reflections on the role of health economics units regarding national health care systems

## Reflections on the role of health economics units

The health care economics and funding team of the Pan American Health Organization's (PAHO)

health care systems and services area has somewhat regularly followed up the development of health economics units or departments (HEUs) in Latin American and Caribbean countries. In 2006 it conducted the first meeting of these units in Buenos Aires, and, between late 2006 and July 2008, it surveyed the ministries of health in each country in the region to obtain more information on their operational procedures (OPS, 2008). In that study, they found the existence of HEUs in 10 countries: Argentina, Brazil, Chile, Uruguay, and Paraguay in the Southern Cone; Colombia in the Andean Community; Costa Rica and Mexico in Central America; Dominican Republic in the Latin Caribbean; and Trinidad and Tobago in the English Caribbean. In these countries, the general topics of HEU interest included sustainability and tax aspects in the funding of universal health care systems, studies for economic evaluation of programs, health care interventions or activities, the studies on the markets and prices of medicines, besides the studies related to health economics.

The second meeting was conducted in Buenos Aires, in 2009, aiming to contribute to the exchange and dissemination of regional knowledge, ideas, and experiences among HEUs (OPS, 2009). This meeting resulted in the creation of a permanent regional forum on Health and Economic and Social Development aiming to highlight the importance of health care in the process of economic and social development in the countries, to make the work of HEUs more visible, and to promote the development of cooperation lines to strengthen it, to ensure its institutional consolidation and continuity. Apparently, the idea of creating a forum has not materialized, as it was not possible to locate documents regarding it on the Internet.

The third meeting took place in Washington in 2011, and the HEUs exchanged experiences regarding the impact of aging on the expenditure and funding of health care systems, the implementation of payment mechanisms to improve the efficiency in the use of resources, and the application of economic evaluation methods in the selection of medications and health technologies. They also analyzed the advancements on the development of a common investigation agenda and on the defini-

tion of operation criteria for an inter-institutional network of health economics units/departments of the ministries of health in participating countries (OPS, 2011).

Finally, the participants in the last meeting that took place in Santiago de Chile, in 2013 discussed the financial protection offered by the region's health care systems, the definition of a strategy for periodical updating of direct disbursements and financial protection indicators, strategies for the HEUs to contribute, in their countries and at a regional level, to decision-making, and the drafting of public policies based on financial protection, efficiency in health care systems, as well as the revitalization of HEU's coordination bodies through the definition of a common goal of development for the period between 2014 and 2013 (OPS, 2013).

There was clearly a movement in Latin America and in the Caribbean to institutionalize health economics in public health care organizations, through the creation of specialized units that intend on contributing to the drafting and implementation of policies and programs. Nonetheless, as it is usually characteristic of these organizations, there seem to be waves of institutional strengthening and weakening, depending on the political groups that take over the ministries of health. Such situation may be observed in PAHO's team effort to create a cooperation network among the units and to discuss strategies to ensure its institutional consolidation and continuity. It was a recurring topic in the meetings held with such units.

An issue that seems to be essential is that, although the importance of health economics has been more recognized, many health care managers and political leaders have little knowledge about their field and about how it can contribute to health care. Maybe that is why it is hard to institutionally think of the operation of the unit and its relationship with the remaining units in the organization, besides issues that may be answered by HEUs to support decision-making by managers.

In the intra-organization context, one needs to bear in mind that HEUs will always operate at various levels simultaneously, considering the nature of their work. A HEU team will have to interact with the remaining teams at the institutional level, aim-

ing to support their decision-making processes in case they are conducted in a more decentralized way, or even to obtain cooperation, collect data, and have access to information regarding specific topics. Thus, a position in the organization hierarchy that enables these actions to be effectively taken at all levels is fundamental. Hierarchical barriers may hinder, and in some times, render the work of HEUs impossible.

In regards to HEU's tasks and the topics discussed by it, a point to be highlighted is that it is part of one of the organizations of a state, which is under the management of a government, generally an elected one, in the Latin American context, based on a political platform involving ideological views, preferences, and choices upon the creation of public policies. Depending on the constitutional state administrators and their views, preferences, and choices, HEUs can have more or less freedom to deal with certain topics and publish studies that have been conducted. An example of this situation may be given with the discussion regarding health care system funding. Even though technical studies show the need to increase funding sources or the participation of the government level which HEUs are part of in the funding of the system, if a political decision rejects such proposals, a unit can do little about it, even though there are technical grounds to support such discussion.

Hence the need to understand HEU's possibilities and limits. It may have trouble publishing studies and conducting others that produce evidence supporting other government levels and even other health care institutions but go against the decisions made by government members. That does not mean it cannot or should not do it for, in the context of its internal organization, attempting at contributing to the debate and, through evidence, dissuading decision makers from adopting measures that cannot be the best from a socioeconomic point of view. Nevertheless, such posture will not always be appreciated.

The field in which HEUs operate is not an easy one. Oftentimes its work will take place before the decision is made, and it will point that the choice was not the best one from a standpoint favoring efficiency, showing that resources are wasted. In



that case, depending on how open decision makers are to accept the fact and review their decisions, this may strengthen the work of HEUs through the recognition of their contribution or they can even be seen as threats to managers because of the (usually misled) understanding that it is a political rather than a technical initiative.

Regarding that, it is important to remember that HEUs conduct technical and political actions, “political” being understood from the point of view of health care policies; that is, of solutions that are implemented to solve problems appointed by society and its government members. This is a very complex discussion. It is worth saying here that the principles and guidelines they are based on are the ones that guide the health care system. If the country has a constitution that determines that health is a universal, egalitarian, and full right, as is the case of Brazil, these are the basic principles that must guide the work of a unit, besides the working guidelines of the system that are prescribed in the law and the rules that are created by the managers, as long as, in this case, of course, legal and constitutional principles are complied with. In this example, the biggest political decision ever made is the one of having health care as a fundamental right.

HEUs must face, as any other public organization unit, ethical issues that may affect their work. It is important to point out here what was emphasized by Drummond and Mooney (1982e), who said health economists may subsidize decision-making but not make decisions themselves, once planning and creating health care policies are inevitably subjective and that is up to health care managers. Thus, deciding for one or another health care intervention may even be done without considering the economic aspects shown by the HEUs, but the limit for a decision to be accepted without being questioned must be defined by the constitutional and legal principles that govern the health care system.

Turning back again to education and/or knowledge in health economics, one of the biggest challenges for the constitution of HEUs is professional qualification. Public organizations have specific processes to hire staff, through public admission exams, in general, and these tests are very likely not to be able to meet the technical staff needs of HEUs.

That may happen as a result of difficulties in the drafting of rules for selective processes, whether it is because the staff management policy does not specifically seek qualified professional profiles, because this professional profile is not given priority, or even because there is a lack of qualified professionals willing to take part in such processes.

Because HEUs do not qualified technical staff, an effort needs to be made to train the professionals of the team, whether they are health workers or economists. The investment obviously requires time and having new team members does not necessarily mean having the productive capacity increased, as these need to be trained. Other challenges that are common to the public sector are likely to be added, such as low salaries and lack or limitation of professional evolution, which contribute to high employee turnover. Generally speaking, such turnover is twice as harmful to the teams as the vacant positions are not immediately filled as selective processes are only scheduled from time to time, and because new workers demand training.

It is possible that these difficulties are the source of a seeming distrust from health care managers and political leaders in HEU’s ability to produce good analyses and studies. Oftentimes it seems easier to trust in these studies for groups that are external to the organization than counting on the internal team to do it. Of course the challenges pointed out for composing a multidisciplinary team specialized in health economics has a relevant role in this context, as a great deal of time and energy at the HEUs must be allocated to overcome them. However, much can be done by this team, who knows the technical and political issues regarding the organization and has easy access to the data sources, much more than external researchers. Therefore, it does not regard to choosing internal or external work, but rather to evaluating what can be done internally and what should be more appropriately conducted by external researchers.

For example, complex economic evaluations that require resources such as specialized personnel and time may be conducted (and generally are) by researchers from universities or research institutions. In these cases, the public administration may conduct procurement processes to commission studies,

which are important to support decision-making on the incorporation of a certain technology to the health care system. This type of decision generally takes place at scheduled intervals and is completely different from the daily routine of system decisions, involving pressure from groups of interest and the definition of policies which, to be devised, require that information be quickly produced on costs of procedures, services, reimbursement of values for services rendered, funding of the system itself, among other topics. To produce evidence in these situations, considering the little time available, rarely will the organization be able to count on the preparation of an analysis by external groups, as there are obstacles for the work to be conducted this way, such as the ways to hire staff, the access to data sources, and, especially, the time to do it.

That demonstrates there is a very clear work niche for the HEUs that does not compete with the one of universities and research institutes in this field. Hence, deciding on having one or another institution conduct a study needs to consider factors such as the need for specialized knowledge on a certain health-related topic, financial resources, available time for presenting and using results in decision-making. Not having a HEU or a team specialized in health economics in the organization may mean making decisions without considering economic aspects that influence the results from the decision that was made, and that implies poor distribution of scarcely available resources.

In a study that was conducted in Australia intending on describing how health care and other government departments in New South Wales resort to economic recommendations to prepare policies and programs, Madden, King, and Shielly (2009) found that all survey respondents agreed that health economics has an important role in decision-making. However, only one of the health care departments reported using such knowledge to support decision-making on a regular basis. Regarding the mechanisms used to fulfill health economics needs, they listed the following in the internal environments of health care departments: evaluation from economists or health economists, training technical staff, generalist technical staff qualified in health economics, training programs for

health economics specialists, and health economics units. In the external environment, consultancy regarding products, commissioning research through admission tests, and cooperating research centers.

The authors observed in the study that not all mechanisms to support decision-making were equally used. Some issues that are commonly raised by the government, such as the cost and effect of interventions being implemented locally, may be hard to be answered by external groups. Besides that, managers seek answers to very practical questions, and that might not promptly correspond to external groups' interests or specialty fields.

In this aspect, the HEU itself can establish partnerships with external institutions, such as universities, research institutes, and health economics units from other government levels, aiming to potentialize the production of health economics-related evidence to support public policies and to offer more training courses in the field, in the case of partnerships with universities. As a unit may have a strategic and comprehensive view of the system, it may be able to contribute to the identification of information gaps that may be filled in through research conducted by these partners, in a way to strengthen them institutionally. These partnerships extend work networks, giving them visibility and recognition in case they have a good performance.

It is also important to point out that the work of a HEU must not necessarily be tied to short-term studies. There medium and long-term projects, or even statistics that are continuously produced that may, in some cases, be dealt with by the unit. An example of that is the production of the Brazil's national health care accounts. Whatever the adopted methodology is, first one needs to discuss the method or methods and then apply them. Due to the continuous nature of such production, the need for knowledge, and the access to government databases (some of which with most information classified), besides the time to be dedicated to the activity, there will hardly be external groups taking part in the public health care organization in such work, other than those that are responsible for statistics or analyses of public policies at the national context. In this case, one can never stress how relevant it is for a

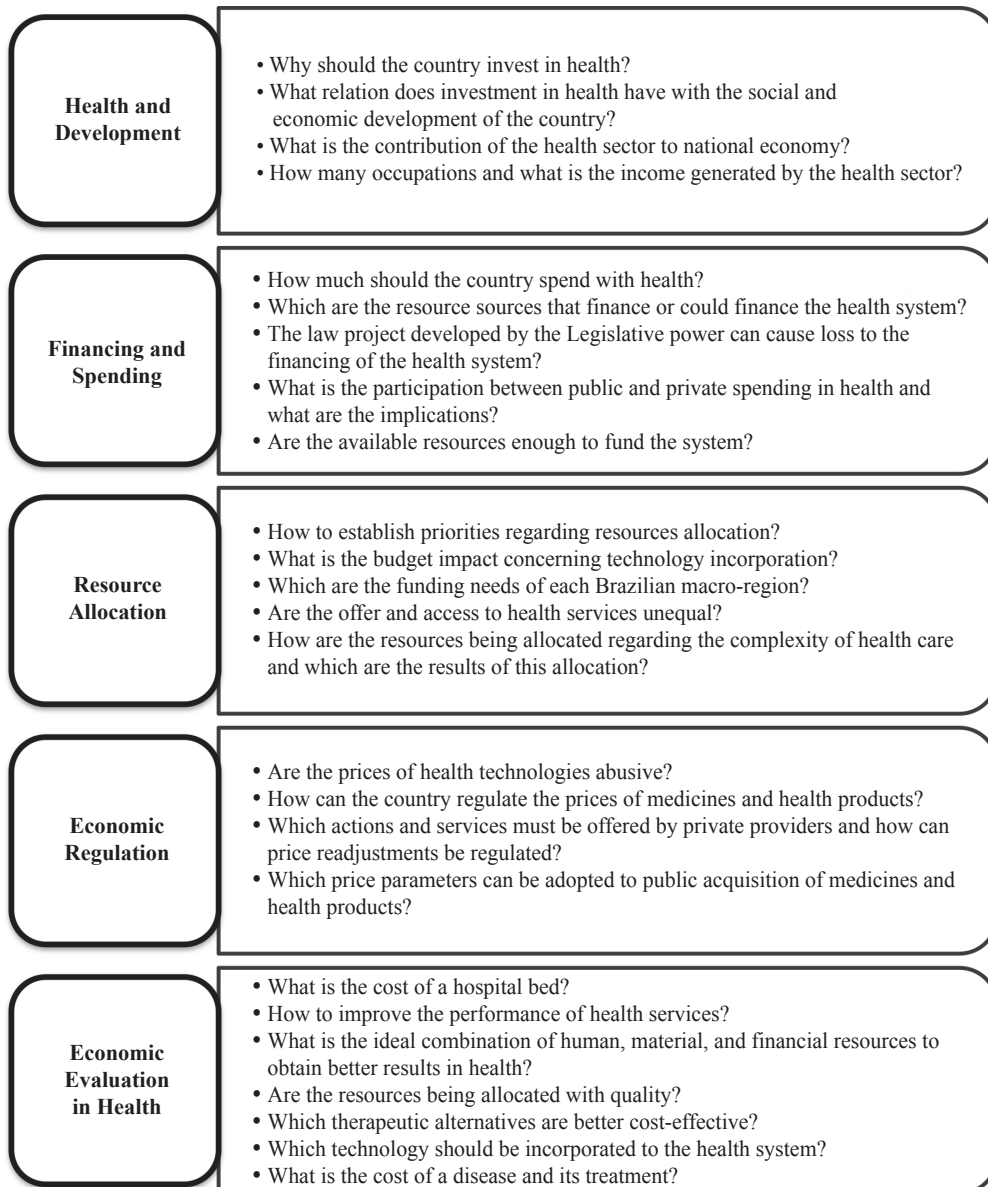
public organization itself to take part; and in its internal environment, HEU.

Other medium and long-term initiatives with direct HEU engagement may be in the support to the creation of other health economics units at regional and local health care system levels, and also in the implementation of a program focusing on institutionalizing the use of health economics-related information, as observed in a program to assess and manage costs in health care units or in

regional and local organizations of the system, or even in the management of information systems that are relevant to the field.

Finally, still regarding the topics that might be dealt with by the unit, as previously said, their definition depends on how qualified the team is, on its size, on the methodological complexity, and on the time required to obtain results. Figure 1 shows some questions that might be answered by the HEUs, according to the major health economics topics.

**Figure 1 - Health economics topics and some questions that might be answered by health economics units.**



## Final remarks

In this article we made some considerations regarding the role and relevance of health economics units regarding national health care systems, from a brief introduction of its grounds and a contribution to health care management by this knowledge field. However, despite the increased scientific production, there still seems to be a long way ahead for health care managers and political leaders use the information produced, from the use of tools and the application of health economics knowledge upon creating and implementing policies and programs.

One of the ways to improve the decision-making process in public health care organizations is to count on the work of an internal team that is specialized in preparing studies that aim to support decisions and, in this aspect, HEUs may play a relevant role. Nonetheless, to do so, it needs to be strengthened through the availability of resources that are essential to its development; for example, multidisciplinary teams and well-trained professionals, and institutional empowerment to conduct their work with no hierarchical obstacles that make it impossible to have access to data sources, or any other obstacles for that matter.

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