

Health Economics

Dr. Filiz Gölpek

Assistant Professor

Faculty of Economic and Administrative Sciences

Hasan Kalyoncu University

Gaziantep

Turkey

Abstract

Being healthy is one of the most important factors contributing to individual prosperity. Health is the basic requirement to enjoy other aspects of life. If one is not healthy, other satisfaction tools which are owned lose their meaning. Therefore, in many countries, a considerable amount of money is allocated from the national income for health spending. They are scarce. In this case, social aspect of the issue dominates the economic aspect. Allocating national income for health care services, providing a certain level of health care services through scarce resources and performing this with the best methodology, the question of whether public intervention should be instead of private sector, what will be the composition of the services provided by the both parties and who will pay for the costs of health care services are related to economics. Within this context, this study aims to provide a technical framework for health economic.

Key Words: Health economics, economic efficiency and equity, externality, market failure, public subsidy.

1. Introduction

Many economists acknowledge that being healthy is one of the most important factors contributing to individual prosperity and high social health status will enhance the efficiency of human capital thus have positive effects on country development. Developments in medicine and technology, healthier nutrition and improvement in conditions, reformation in public health care services have resulted in increase in average life-span. Therefore, significant amounts are allocated to health from national income in many countries. Such topics as how much of national income should be allocated to health care services, what the best method of providing a certain level with limited resources is, whether public or private sector should provide health care services, what the composition of the services provided by the both sectors will be and who will bear the cost of health care services are all related to economics.

Main purpose of this study is to create a technical framework for health economics by analyzing economic activities; open market system and state intervention in justice and health care services. This study consists of six sections including introduction and conclusion. In the second part, the fact that health care services have the features of semipublic goods is explained. In the third part, benefits of health care services which are redounded upon individual; positive and negative externalities which are reflected on society are analyzed. In the fourth part, reasons for public financing in health care services are approached under the subheadings of economic activity, fair distribution of services and market failure in health care services. In the fifth part, state intervention in health care services is discussed within the frame of offering, regulating and public subsidy. In the conclusion part, it is suggested that health care services are semipublic goods and these services may be offered by both public and private companies.

2. Characteristics of Health Care Services

World Health Organization defines health as a state of complete physical, mental and social well-being. Health can be defined as improving economic environment, environmental and social conditions in which individuals live (Mortan & Tokgöz, 1984). it is essential to improve health conditions and raise educational level of individual, who is the most valuable treasure of a country, in order to involve him in economic activities effectively (Serin, 1972: 64).

According to the aforesaid definitions, being healthy is one of the basic needs of human-being. Health care services have an extremely complex structure and a significant role in being healthy and regaining it when someone is ill (Aslan, 1998:285).

Health care services are birthright and offered to whole society in accordance with social justice. In accordance with ensuring effectiveness in health care services and social state, providing everybody with health care service is important. In economies which adopt this notion, every citizen should easily access health care services having minimum conditions (Öztürk, 2011: 16). Health care services are approached under two headings as public health care services and individual health care services. Protective health care services and treatment services must be classified in terms of service degree or rendering time. An important part of protective health care service overlaps community health care services. Therefore, they are sometimes considered to be the same (Bulutoğlu, 1997: 251).

Individuals may buy some protective services. For instance, performing check-up, conducting diet programs and spending on them are the behaviors whose private characteristic dominates. From this respect, the expenditures are protective actions which are taken before occurrence of an illness. Thus, the difference between protective health care services which are provided without individual initiative and protective services which are provided in consequence of individual initiative must be considered (Cropper, 1977: 1274). In the event that those who cannot afford health care services are not treated, health of those who can afford them are imperiled (Bulutoğlu, 2008:271). Therefore, state has an important role in providing health care services.

Consequently, public health care services can be defined as the services which are rendered considering the whole society not individuals. Accordingly, protective health care services are the services which aim to prevent germ-carrier feature of animate and inanimate environment and all benefits of which exhibit characteristic of public good (Şener, 2010: 93). For instance, vaccination services provided in order to struggle with infectious diseases, maternal and infant health care services, food regulations and services regarding waste water systems are protective health care services. They reduce the disease risk and provide benefit to society.

These health care services are rendered in environment not on the physical entity of an individual as in the case of vaccination. Environmental health care services are interpreted as a typical social public service due to these characteristics. Social protective health care services are the services which are provided without individual initiative of people and are of vital importance for low-income, developing countries (Aslan, 1998: 268). This is because, environmental conditions in these countries are favorable for diseases to spread. Individuals cannot render the environment in which they live sanitary with their income. Such services as healthy dwellings, waste water systems and waste disposal requires heavy expenditures. Thus, public intervention in developing countries is crucial.

Individuals are in the center of individual health care services. Most of these services include the services which come into play after occurrence of disease. In individual health care services, the person who benefits the service is the individual who is treated. However, treatment service will also provide external benefits in the event of infectious diseases (Bulutoğlu, 1977: 251). In such a case, utilization of individual health care service may not be left to individual choice. This is because, social aspect of the service and the benefits expected from it dominate.

Health care services consist of highly complex services including labor such as doctor, nurse and laboratory assistant; capital equipment such as hospital premises, diagnosis and treatment tools and equipment, ambulances; goods such as health care stuff. Moreover, treatment services include various services. To illustrate, services provided by impatient treatment institutions, private health care services, dental care services, services provided by various healthcare personnel such as nurse, midwife, health technician, laboratory assistant; services provided by nursing homes and other health care services.

3. Externality of Health Care Services

Most semipublic goods and services have marginal social benefits as well as marginal private benefits. Marginal private benefit indicates the benefit of which the people utilizing semipublic good/service take advantage; marginal social benefit expresses the benefit which semipublic good/service provides for society. Semipublic goods provide benefit not only for the ones who consume them but also for the most part of the society (Öztürk, 2011: 283; Şener, 2010: 91). It can be suggested that health services also have similar external benefits. Particularly, protective health services include significant external benefits.

For example, a vaccination campaign involving the whole society provides society with significant external benefit. Similarly, remedial health care services involve significant amount of externality besides private benefit.

For example, treating and helping even one person regain his health will, at least, lead to an increase in production (Aktan, Dileyici & Vural, 2006: 21). Societies and individuals spend on health. It is an important matter of debate in economics whether these expenditures are consumption expenditures or investment expenditures. Decrease in risk of disease or recovering from illness relaxes individual and contributes to enjoying life in the short term. Considering these, benefiting from health care services can be reviewed as a consumption activity. However, these services also provide benefits effects of which extend just as in health care services. Health expenditures are considered to be investment due to these long-term effects (Aslan, 1998: 274).

Acceptance of health expenditures as investment and analyzing it through the tools of capital theory have paved the way for economists to reach a conclusion on the structure of lifelong health care expenditures of an individual and to define the progress of health capital. A model considering the said issues was developed by Cropper (1977: 1273): According to this model, health can be viewed as capital stock. This capital stock leads to the output of *healthy days*. In other words, health expenditures contribute to health capital stock and extend the healthy life span of an individual. The thing encouraging investing in health is the possibility of increasing the time which people may use in order to generate an income or produce consumer goods. However, not only a certain amount of money income but also avoidance of disease is expected from health care services. Because individuals cannot enjoy life when they are ill, illness can be viewed as a temporary discontinuation in benefit flow (Aslan, 1998: 276). In other words, illness equals to zero consumption. This means that individual will not be able to gain benefit in the event of illness.

Expenditures for urgent health care, protection, improvement programs aiming at protecting and enhancing health are considered to be *health expenditures*. Thus, the output obtained from health expenditures- either they are considered to be investment or consumption- need to be defined and measured somehow. One criterion to be used regarding this issue is the current value of the revenue flow which is expected to be obtained within the days which are saved thanks to health care service. This criterion gives the output of health expenditures as investment (Bulutoğlu, 1977: 251). Criterion in this evaluation is the benefit of health care and income growth provided by the labor force which is saved. However, defining and measuring benefit is quite difficult. Here, it is essential that a criterion regarding benefit reflect the value which an individual attaches on his life. Thus, it must be considered that how much people would like to spend on the precautions which would probably extend their life span for a certain period of time. In this approach, it is also crucial to know the value which relatives of a patient attach on his life. However, it is quite difficult to estimate this value.

Benefits of health care services are classified under two headings as the benefits which an individual obtains due to regaining health and the benefits which are supposed to emerge due to the fact that the investments in the mentioned services are considered to be human capital investment. The benefits which an individual obtains when he recovers from an illness can be gathered under points: (1) relieving through treatment, (2) regaining health and relieving of pain in consequence of treatment, (3) income and production increase in consequence of recovery and (4) the fact that health recovery leads to production which is for individual consumption (Aslan, 1998: 277).

The benefit of health expenditures as human capital investment is the fact that production and income capacity increase in consequence of regaining health. The justification behind this reasoning can be explained as follows: Health care services result in decrease in mortality risk; number of the disabled and patients; weakness and debility. Decrease in mortality risk leads to an absolute increase in labor force in regard to man/hour rate and decrease in the disabled and patients make a relative contribution to this increase. Decrease in weakness and debility increases production capacity per man/hour. Ultimately, labor force increase in amount and efficiency improves. This, on the one hand, leads to increase in production and on the other hand improves product quality. Therefore, the benefits of the expenditures for health care services having the quality of human capital investments redound on both individuals and society.

4. Public Financing of Health Care Services

Today, governments determine the sources, which will be allocated to health care services, according to the need of the country and state finance or provide health care service even in liberal economies (Engiz, 1996: 205).

Basic factors of public financing in health care services, (1) ensuring efficiency in providing services, (2) pursuing justice when distributing services or their benefits, (3) lack of any motives in private markets in market failures, struggle against poverty; need for providing goods and services social value of which is higher than the value which an individual may attach (Tatar, 1996: 44).

4.1. Economic Activity

Health care services can be produced by the market in terms of their qualities. This service can be marketed due to individual demand and produced and presented in the market in principal. However, importance of this service from the point of public, its social benefits or social costs in the event that it is not produced adequately cause it to be produced by state as well as market (Nadaroğlu, 2000: 33).

Ideal situation in a health system is the condition in which the highest quality health care services are provided without taking costs into consideration. However, it is not possible to ignore the costs of providing the said services. Building hospitals; training doctors, nurses, caregivers and laboratory assistants; producing medication, technical tools and equipment require the resources which can be used for various areas to be allocated to health services. Allocation of huge amount of resources is a must for the highest quality potential health services (Le Grand & Robinson, 1984: 33).

In this case, it is a good idea to reach an activity definition which considers not only benefits but also costs of health care services. This is an issue which must be considered within the framework of optimization principles just as profit and benefit maximization. Accordingly, when marginal benefit obtained from a good/service is consumed in a way that it is equal to marginal cost, it is optimum consumption. This rule can be applied to health care services. However, because health care services involve external benefit, social cost and benefit need to be considered instead of private cost and benefit (Aslan, 1998: 278).

Despite this theoretical analysis, in practice, there are some problems in measuring the amounts particularly benefits. Benefits which could be obtained from a medical treatment include the value of recovery thanks to medical treatments. It is essential to have information about people in order to measure the said benefits. Disease means potential loss of earning. In this case, one general method which could be used to estimate the benefit provided by a private treatment process is to calculate the decline in missing earnings. However, this method ignores the value of decrease in pain and trouble. Moreover, it assumes that those who do not have income or potential income do not value their life. Difficulties in measuring benefits do not invalidate the definition of efficient health care service level based on the maximization of the difference between benefits and costs. This is because the said definition is a way to address a social aim which is implicitly included in most decisions on allocation of resources.

4.2. Fair Distribution

Health care services, among the most significant determinants, which determine the economic, social and political development level of countries enhance the quality and skills of poor stratum and ensure them to be satisfied in terms of morality (Çilingiroğlu, 1995: 17). Although many economists agree on the fact that health care service must be fair and egalitarian, what fair means is problematic when it is health care services. It is the general consensus that everybody must reach adequate health care service regardless of their income. If necessary, preference must be based on age or operation success not income. Health care services are different from most goods. Just like the principle that the right to vote must not be a matter of market, right to live must not be controlled by the market (Stiglitz, 1994: 351).

However, some economists suggest that health care services must not be treated differently from goods. Those who have more money and want to spend it on health must not be hindered. As a matter of fact, relation between medical protection and vitality/mortality is poor. Cigarette, alcohol, food and particularly education play equally significant role in determining life span and other health indicators. Therefore, health care services must be provided basing on level of income (Aslan, 1998: 279). Another point of view claims that everybody has the right of receiving a minimum level health care service. It is the principle on which health care service programs aimed at low-income individuals are based.

On the other hand, those who adopt this opinion generally refer the results regarding economic activity of alternative ways of ensuring everybody to reach minimum health care service (Şener, 2010: 91). Accessibility can be defined as the costs which individuals have to bear in order to receive health care service. These costs include the cost of being away from work, service fees and transportation cost to medical service institution.

Accessibility equality indicates that these costs must be the same for all. If these costs differ among individuals, accessibility equality cannot be ensured.

4.3. Market Failures

Free market notion was dominant in economy through the 1980s. With this change, many activities production and distribution of which had been undertaken by the public until then have become a matter of debate. One of those activities have been health care service.

While some activities which are within the scope of health care service are close to definition of public good, most of them have the qualities of semipublic good and service. Health care service cannot be marketed as other goods and services are and thus market failures are observed (Stiglitz, 1994: 352).

Market failures in health care services are caused by; (1) uncertainty of demand, (2) ignorance of consumer or information asymmetry between supplier and exactor, (3) externality and (4) justice objective (Tatlıoğlu, 1992: 27).

Uncertainty in health services results from the fact that when individuals go to the hospitals or see doctor cannot be estimated. It is rare that people save money for unexpected health expenses because it is uncertain when an illness occurs. If the share of treatment expenditures in household budget were small, this would not pose a problem. Health care expenses can be significant in many cases (Aslan, 1998: 279).

As a solution to this uncertainty in demand, health insurance can be utilized. In general, the aim of insurance is to decrease the risks which individuals have to have. Many countries have an insurance program aiming to help cover health care expenses. The rate of insurance programs in health service market is 23%, 14%, 13%, 9% and 5% in the USA; France; the UK; Germany and Switzerland; Netherlands, Spain, Belgium and Austria respectively (Fushs, 1986: 16; OECD, 2012).

Lack of information or information asymmetry which is one of the reasons of market failure in health care services results from the information imbalance between consumer and doctor or health institution providing the service. Consumers have the chance of trying various goods and familiarizing them. This helps them when they need to buy the goods again. However, this is not the case for health care services. Patients are unaware of efficiency and adequacy of treatment. Furthermore, there is no turnaround in many treatments. When it is understood that the treatment is inadequate, it may be too late for another treatment (Tordoir, 1987:82).

Information asymmetry between producers and consumers in health care service market leads to monopolization tendencies in providers of the said services. The fact that consumers have difficulty in making a selection decreases competition among doctors and medical institutions. Suppliers may operate like a monopoly by increasing prices and reducing quality without worrying for customer loss. This indicates that activity incentives in a competitive market do not exist for health care services (Uluatam, 1999: 28).

Another reason for market failure in health care services is externalities. The fact that these services have external as well as private benefits causes problems in providing them through market. Externality becomes prominent in certain health care services and infectious diseases (Aktan & Tosuner, 1986:144). For example, those who are vaccinated against various diseases serve to reduce the risk of infecting others with them. Likewise, a hospital curing an infectious disease provides external benefit because it prevents others to contact with it. For instance, there are significant positive externalities in treating certain diseases, particularly infectious ones or in the contrary case, significant negative externalities. This makes regulations regarding such practices as compulsory vaccination and quarantine necessary (Tatlıoğlu, 1992: 27). If externality is crucial, market system loses its efficiency.

To illustrate, in the case of providing cholera vaccination as a paid service, individuals will pay attention to private benefits and costs which they bear. Disregarding external benefits will lead to deficient demand of these services. Another reason for market failure in health care services is the justice objective.

Justice objective in health care services includes being independent of income level; providing health care services with the minimum standards; the alternatives of basing medical protection on income level and providing health care services for everyone as needed without considering income level (Gadrey, 1987: 125).

In the event of applying market mechanism, justice objective may have a tendency of failure. In the private health care service market, the poor will not be able to buy the treatment which they need; thus, they will not reach services with the minimum standards.

There will be unfair treatment in the event of a disease owing to the fact that the high income individuals will be able buy better treatment compared to the low income ones. Conditions of competition confront people with the same financial cost or price for health care services and the said price mean more pecuniary sacrifice for the low income individuals. This is because treatment fees cover a significant proportion of the income of the low income individuals. Thus, equality in reaching health care services in a market system is impossible (Stiglitz, 1994: 352-360).

If the conditions of a perfect competition market were valid also for health care services, doctors or hospitals who provide better diagnosis and treatment services with lower prices would attract customers from others. Thus, innovation and cost reduction would be encouraged.

5. State Intervention in Health Care Services

Semipublic goods and services can be supplied by the market thanks to their qualities. Such semipublic goods as education and health can be marketed based on individual demand and as a rule they can be produced in the market and offered to consumers. However, importance of these goods for society, their social benefits or social costs in the event that they are not produced sufficiently cause state to supply them as well as the market (Öztürk, 2007: 120).

In addition to this, the fact that market system has certain characteristics which prevent health care services to be supplied efficiently and in a socially optimal way has brought forward the state intervention which is an alternative way to provide health care services. State intervention occurs in three ways: State (1) provides service, (2) regulates health care service market and (3) subsidizes the services (Tathloğlu, 1992: 27). Governments may apply these three alternatives altogether or separately.

5.1. State Provides Health Care Services

Supply of health care services is the amount which medical institutions consent to sell at a certain time and a certain price (Orhaner, 2000: 17). Information imbalance between consumers and suppliers provide health care service suppliers with monopoly power. State itself may offer health care service in order to destroy monopolization tendencies. State may become monopsony in purchasing health care services. Thus, prices can be reduced through the agreements which are made with monopoly units. Cheap medicine and medical equipment can be procured. Low price can be applied for medical personnel. This may enable state to procure labor and such goods as buildings, equipment, machine and materials which are used in health care services with lower prices by using its monopsonist position (Tathloğlu, 1994: 43; Aslan, 1998: 279).

However, state may well constitute an impediment against competition. Lack of competition annihilates the incentives regarding activity, adequate resource may not be allocated to health care services and an awkward bureaucracy may prevent services to be provided at a necessary pace.

5.2. State's Regulation in Health Care Services

State's regulation in health care services is due to the fact that consumers are deprived of required knowledge through which they assess the treatment. State itself assess and guarantee the quality of health care services. A regulation for this covers many areas from medical personnel providing the service to the way and organization of providing services. State asks diploma, certificate of suitability etc. from those who will provide health care service. It determines the principles and content of education of medicine, nursing, caregiving etc. It regulates the companies which offer health care services. It may set standards for hospitals (Mortan & Tokgöz, 1984: 25).

While making regulations, individuals who are in the sector are employed. Physicians are effective in determining curriculums and study period of professions related to medicine. Examinations are conducted by doctors. Doctors take part in regulation committees and assess other doctors' performances. This is inevitable. This implies that regulations may be in favor of those who are subject to the regulations not consumers (Demir, 1997: 128).

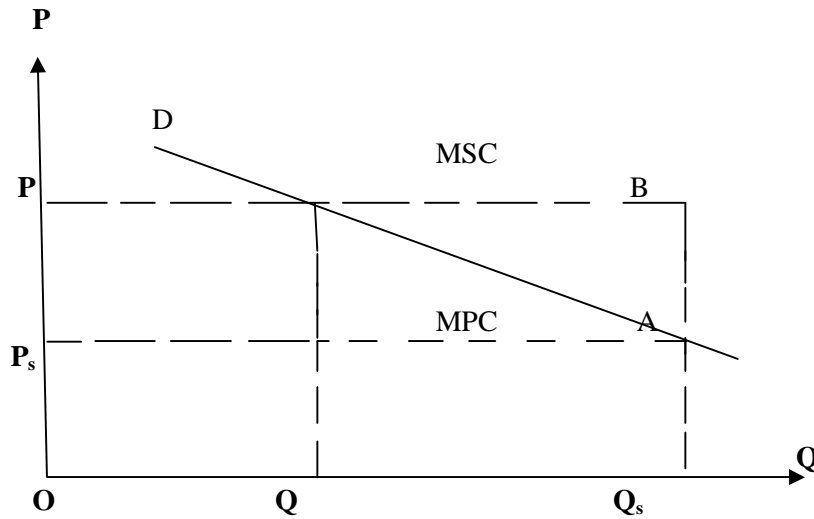
For example, doctors may seek to limit the supply of doctor or health care service by ensuring period of study to be extended and making entering the profession harder. However, despite all of these handicaps, education standards which are valid all over the world reduce the negative possibility of the fact that regulations may be in favor of those who offer health care services.

5.3. Public Subsidy in Health Care Services

Existence of externalities is one of the basic reasons for these services to be subsidized by the public. Due to the externalities, health care services will be supplied below the level which is socially optimal in the market system.

If state reduces the price by providing subsidy, demand will increase and service amount will reach an optimal level.

Degree of the subsidy varies from free treatment to reduction of prices. However, it can be suggested that it is not essential to reduce prices to zero in order to ensure activity. It is enough to reduce prices as much as individuals are convinced of demanding services as needed. Reducing price to zero may lead to extreme demand increase and cause demand to go beyond the desired level. In the event that subsidies result in health care service demand more than needed and this demand is met, the cost of health care service on the society will increase. If increase in demand cannot be met with increase in supply, there will be long queues and arbitrary service distribution (Aslan, 1998: 280).



Refence: Aslan, M.H.(1998). *Hizmet ekonomisi*. p:293

Figure: Effects of Health Subsidy

Price of health services (P) and quantity of health services (Q) are in the vertical and horizontal axis of the figure, respectively. P is the unsubsidized price and equal to marginal public cost (MPC), at the same time. This is because the difference between this price and subsidized price (P_s) which is for the ones who benefit health care services is paid by the public. Due to the fact that subsidized price indicates the price which is actually paid by the individual who receives the treatment, it is also equal to marginal private cost. If no subsidy were provided, demanded health care service quantity would be equal to Q; the whole cost would be paid by the individual who benefits the service. This quantity may not be socially optimal. In the event of subsidy, demanded health care service quantity will rise to Q_s . This quantity may be above optimal due to the fact that the price is extremely low. As the demanded health care service quantity, its marginal benefit reduces. Marginal benefit equal to quantity Q_s is equal to marginal benefit AQ_s . However, incremental cost to the public is equal to AB. Little benefit (AQ_s) is obtained from the service (BQ_s) which is paid a socially high cost. Consequently, subsidy must be at a level or rate which does not lead to unnecessary consumption.

Another reason for state to subsidize health care service is justice purpose. Subsidies may be applied to those who gain an income which is below a certain level, either it may be offered to everyone free or substantially subsidized prices or subsidization based on level of income may be implemented. Subsidization based on income puts less cost on the low income individuals, the high income ones bear more cost. Thus, equality is ensured in accessing health services.

6. Conclusion

Being healthy is one of the most important factors contributing to individual prosperity and economic development. Health care services include all the activities which extend the life span of individuals and ensure good health. Because maintaining health care services effectively will ensure people to be healthy, it is an important factor for economic development of a country. Thus, health conditions of individuals must be improved for effective participation into economical activities.

Expenditures which are made for protection, development, maintenance, nutrition and emergency programs which aim to protect and develop health conditions are considered to be health expenditures. The output obtained from health expenditures needs to be defined and measured somehow.

One criterion to be used regarding this issue is the current value of the revenue flow which is expected to be obtained within the days which are saved thanks to health care service. This criterion indicates the output of health expenditures as investment. Benefit of health care services is the income growth provided by the labor force which is saved. However, it is essential that a criterion regarding benefit reflect the value which an individual attaches on his life. Thus, it must be considered that how much people would like to spend on the precautions which would probably extend their life span for a certain period of time.

Benefits of health care services include the benefits which an individual obtains due to regaining health and the benefits which are supposed to emerge due to the fact that the investments in the mentioned services are considered to be human capital. The benefit which health care services provide as human investment returns as increase in production and income capacity in consequence of regaining health; decrease in mortality risk; an absolute increase in labor force in regard to man/hour rate and decrease in the disabled and patients; increase in employment and efficiency.

Governments determine the sources, which will be allocated to health care services, according to the need of the country and offer health care services. Basic factors of public financing in health care services are maintaining economic efficiency, fair distribution of services and market failure in health care services. Sizeable amount of resources need to be allocated in order to provide the best quality public service.

In this case, costs as well as benefits of health care services must be taken into consideration. It is taken into consideration within the framework of optimization criteria such as profit and benefit maximization. Accordingly, when marginal benefit obtained from a good/service is consumed in a way that it is equal to marginal cost, it is optimum consumption. This rule can be applied to health care services.

Many economists agree on the fact that health care service must be fair and egalitarian. However, what fair means is problematic when it is health care services. Some economists define equality as providing everyone with adequate health care services regardless of income owing to the fact that health care services are different from many goods; some suggest that health care services must not be treated differently from goods and they are provided based on income level and some claim that everybody has the right to receive minimum health care service.

The fact that health care services provide significant external benefits; uncertainty of demand and knowledge asymmetry are the basic factors of state intervention. State intervention may take the form of offering service, regulating health care service market and subsidization.

Supply of health care services is the amount which medical institutions consent to sell at a certain time and a certain price. Knowledge asymmetry between consumers and suppliers provide health care service suppliers with monopoly power. State may offer health care services in order to destroy these monopoly tendencies. It reduces the competition among physicians and health care institutions that consumers have difficulty in making a preference. Suppliers may operate like a monopoly by increasing prices and reducing quality without worrying for customer loss. It is related to the lack of knowledge through which consumers can assess the service which they receive that state regulates health care services. State itself assess the quality of health care services and guarantee it.

A regulation for this covers many areas from medical personnel providing the service to the way and organization of providing services. Existence of externalities is one of the basic reasons for these services to be subsidized by the public.

Due to the externalities, health care services will be supplied below the level which is socially optimal in the market system. If state reduces the price by providing subsidy, demand will increase and service amount will reach an optimal level.

Degree of the subsidy varies from free treatment to reduction of prices. It is enough to reduce prices as much as individuals are convinced of demanding services as needed. Reducing price to zero may lead to extreme demand increase and cause demand to go beyond the desired level. In the event that subsidies result in health care service demand more than needed and this demand is met, the cost of health care service on the society will increase.

References

- Aktan, C. & Tosuner, M. (1986). Dışsal ekonomiler. *Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 1(1), 142-156.
- Aktan, Ç.C., Dileyici, D. & Vural, İ.Y. (2006). *Kamu ekonomisi ve kamu politikası*. (2. Basım). Ankara: Seçkin Yayıncılık.
- Aslan, M.H. (1998). *Hizmet ekonomisi*. Bursa: Alfa Basım Yayım.
- Bulutoğlu, K. (1977). *Kamu ekonomisine giriş*. (2.basım). İstanbul: Temat Yayınevi
- Bulutoğlu, K. (2008). *Kamu ekonomisine giriş: Demokraside devletin ekonomik bir kuramı* (7. Basım). Ankara: Maliye ve Hukuk Yayınları.
- Cropper, M.L. (1977). *Healty, investment in healt and occupational*. *Journal of Political Economy*, 85(6), 1273-1285.
- Çilingiroğlu, E.N. (1995). *Sağlık ekonomisi: Halk sağlığı temel bilgiler*. M. Bertan, Ç. Güler (Ed.). Ankara: Güneş Kitabevi.
- Demir, O. (1997). *Ekonomide devlet*. Ankara: SPK. Yayın no: 71.
- Engiz, O. (1996, Kasım). *Ulusal sağlık sistemi boyutunda kalite yönetim modeli*. Sağlık hizmetlerinde toplam kalite yönetimi ve performans ölçümü sempozyumu, Ankara.
- Fushs, V. (1986). *The service economy*. New York: National Bureau of Economic Research.
- Gadrey, J. (1987). *The duple dynamics of services*. London: Frank Cass.
- Grand Le & Robinson, R. (1984). *The economics of social problems*. London: Macmillan Press.
- Mortan, K. & Tokgöz, T. (1984). *Sağlık ekonomisi ve eğitimi*. Ankara.
- Nadaroğlu, H. (2000). *Kamu maliyesi teorisi*. (11. Basım). İstanbul: Beta Basım Yayım.
- OECD (2012). Health at a glance. Retrieved June 05, 2013, from <http://www.oecd.org>.
- Orhaner, E. (2000). *Türkiye’de sağlık sigortası*. Ankara: Gazi Kitabevi.
- Öztürk, N. (2011). *Kamu ekonomisi*. Bursa: Ekin Basım Yayıncılık.
- Öztürk, N. (2007). *Kamu tercihinin tespitinde karşılaşılan sorunlar ve çözüm yolları*. Ankara: Palme Yayıncılık.
- Serin, N. (1972). *Eğitim ekonomisi*. Ankara: Ankara Üniversitesi Eğitim Fakültesi Yayın No:25
- Stiglitz, J. (1994). *Kamu ekonomisi*. (2. Basım). (Çev: Ö.F. Batirel). İstanbul: Marmara Üniversitesi İ.İ.B.F Yayın No:396.
- Şener, O. (2010). *Kamu ekonomisi*. (11. Basım). İstanbul: Beta Basım Yayım.
- Tatar, F. (1996). Sağlık hizmetleri finansman kaynakları. *Toplum ve Hekim Dergisi*, 11(72), 44-58.
- Tatlıoğlu, İ. (1992). Sağlık hizmetlerinde finansman sorunu. *Uludağ Üniversitesi, Sosyal Bilimler Enstitüsü*. Yayınlanmamış doçentlik çalışması. Bursa.
- Tordoir, P. (1987). *Services markets and the economics of social interaction*. *In the economics of services*. London: Frank Cass.
- Uluatam, Ö. (1999). *Kamu maliyesi* (6. Basım). Ankara: İmaj Yayıncılık.