THE RELATIONSHIP BETWEEN EMERGENCY HEALTH SERVICES AND INCOME IN TURKEY: THE CASE OF TOKAT PROVINCE

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ABSTRACT

Emergency medical interventions that are made in the right time and in the right way save lives, and wrong times and wrong interventions can lead to irreversible negative consequences. The people who need emergency health services can reach this service in the fastest way and benefit from emergency medical services without any conditions, as well as being a humanitarian duty, being a law and social welfare state. Accidents have occurred throughout history, natural disasters and wars have encountered as a result of injuries and emergency health problems. Solutions for these problems have been sought and it has become necessary to develop different methods for ongoing events. Solutions for these problems have been sought, and ongoing events have required different methods to be developed. Determining the relationship between increasingly urgent emergency health services and socio-economic indicators is important in terms of ensuring effectiveness in the economy. In order to examine the relationship of 112 emergency health services to income in the study, a survey was conducted in rural and urban areas through a one-to-one interview in Tokat province. According to the findings, as the income level in the province of Tokat increased, 112 emergency medical service request claims decreased.

Keywords: Health, Emergency Health Services, Health Expenditure

INTRODUCTION

When we look at definitions related to the concept of health, it is seen that the first definitions are simple definitions, which exclude many elements that affect health, such as "a person without a disease is healthy". Since the early ages, various sciences have been trying to define health and disease concepts by evaluating from their own perspective. While some definitions emphasize the physical and biological field, some definitions emphasize the social field. Biological sciences

health is defined as the operation of each body in maximum capacity and full equilibrium; Behavioral science describes the person as the adaptation to the environment. Social sciences, on the other hand, are healthy if they are not missing in fulfilling their social roles (Tekin, 1987: 263).

Health has an important position in economics as well as in other sciences. Grossmann (1972) considers health as a commodity in which an individual is both a producer and a consumer. Aggleton (1990) has defined health as a commodity and defined as a commodity that can be sold, salvaged, and sold. According to Okur (1992), health, adaptation to the living environment of the organism, social, physical and spiritual well-being; healthy person is defined as a person who does not have any disorders that may interfere with physical and mental activities.

Although the concepts of health and disease vary depending on many factors such as society, age, occupation and time, a universal definition of health is needed. The definition made by the World Health Organization (WHO) in 1946 is universally accepted. According to the World Health Organization, health is not just a disease or disability but a physical, mental and social well-being (Hansluwka, 1985: 1207). This definition is of great importance for health as well as its physical orientation (Robinson and Elkan, 1996).

Whilst the definition of WHO is universally accepted, disagreements remain about the implications of the terms contained in the definition. The idea of how to measure the three dimensions in the definition (physical, spiritual, and social) is rather small (Larson, 1991: 4). The most important point that the definition of WHO is criticized is that the definition is not of an accessible quality (Aggleton, 1990). In the WHO definition of health, health is addressed in a broader context than in the absence of illness and disability, and even if a person has any physical or mental disability, he or she has defined the person as unhealthy. According to this result, many people on the world may be seen as unhealthy. This is another criticism of WHO's definition of health (Seedhouse, 1986: 134).

HEALTH SERVICES AND BASIC CHARACTERISTICS

Health services are given to the whole of the studies aiming to protect the health of the person and community, to make the treatment, to make the lives of the disabled without being addicted to others, and to improve the health level of the society besides them (Öztek, 2001: 294). If health is considered as the individual's capital, health services constitute investments in this capital. With the provision of clean drinking water, treatments made with state-of-the-art technology also fall within the scope of health services (Yeğinboy, 1993: 3). The input of human resources, technology and capital health services constitutes the extension of life span, the development outputs of survival and treatment of diseases (WHO, 2000: 19).

Health services have many different characteristics according to the other goods and services offered in the market, such as mainly being social and not being able to measure their benefits. One of the main purposes of health services is to bring better health conditions to the community. Therefore, health services are offered not only to certain segments but to all people. For this reason, health services have a social characteristic (Saltık, 1995: 38). Health care is a social purpose and often does not aim for profit. Concepts such as cost, benefit and profit have gained different meanings in the health sector (Özsarı, 2000: 20, Işık, 1997).

There is a lack of competition in the health care market. The technology utilized in the delivery of health services is quite expensive. In addition, a human factor is needed for the presentation of these services. This leads to higher costs. While there is no delay in the resolution of health problems, if the deterioration in the health of the person gives great pain or if it will lead to life-threatening hazards, it is necessary to meet the demands of the healthcare services before the time runs out. In these cases, people do not have the chance to bargain for the price of the service offered. All of these conditions cause a lack of competition in the health sector (Kurtulmuş, 1998: 44).

Health is different from other goods and services on the market, so the health market has a very different view from other markets. The publicity and externality characteristics of health services prevent these services from reflecting the real costs (Özsarı, 2000: 24). While health services are available for some consumers, other individuals in the community benefit from these services as well. Thus, the benefits of providing health services out of individuality are transforming into social benefits (Nadaroğlu, 1981: 34). Services such as vaccination and examination for the individual benefit primarily from personal health, but also benefit society health after a decent life. This benefit is mostly understood in the diagnosis and treatment of infectious diseases (Nadaroğlu, 1996: 32).

When we look at literature, it is seen that there is a relation between community health and economic development (Taban, 2006: 2). Deterioration of people's health status will produce some negative economic consequences. The health of the person who is unfit to work will suffer a loss of income, in addition to a certain expenditure within the treatment and a further loss of income. When this situation is considered in terms of the country, it is of vital importance to have healthy individuals to raise the level of economic development and prosperity (Kurtulmuş, 1998: 44). Health care services increase the individual's working power and are therefore seen as an investment supporting production capacity (Bulutoğlu, 1981). In addition, the improvement in health level will accelerate economic growth with increasing productivity (Taban, 2006: 4).

HEALTH ECONOMY

Economics is a scientific discipline that examines the choices made between goods and services to achieve the maximum level of prosperity with scarce resources. In doing this analysis, he is also answering four basic questions (Wonderling, 2011; Gruen, Black and Iles, 2005: 8).

- What to produce and how much to produce?
- Which method will these products be produced?
- How will social outreach of goods and services be shared among members of society?
- How will the activity be delivered and distributed?

Like the fundamental problems of economic science, there are important problems in the health sector such as distribution, internal inefficiency and injustice. Distribution refers to inefficiency in cost effectiveness in health programs, inefficiency in public programs and inefficiency in public programs and injustice concept explains that the distribution of benefits in health services is not equal (Akın, Birdsall and Ferranti, 1987: 17). The health economy is a subdivision of the economy, seeking solutions to these problems in the health sector by adapting the rules and methods of the economy science to the health sector (Şenatalar, 2003: 25).

Effective and efficient use of resources in health services is seen as the main objective of health economics. The health economy is the use of the science of economics in the work done to protect the health of people and societies, to cure the impairments in health conditions, and to bring the disabled to life without the need of anyone (Bekir, 2003: 1).

The health economy aims to maximize the use of the resources used in the presentation of these services and to obtain the highest benefit while avoiding the intended illnesses of the units and staff involved in the presentation of health services and bringing the current health status to better levels (Williams, 1987). Health services make and implement various programs to protect people and community health and bring them to better levels. The healthcare economy makes comparisons between these practices, and whichever level of utility is the most, it is cruel to practice. Opportunity cost concept in health economics is kept in the forefront (Çilingiroğlu, 2001: 1592).

Kenneth Arrow is the pioneer in the adoption of the health economics as a scientific branch. The work "Uncertainty and Welfare Economics of Medical Care" in this area is considered as a leading resource in the field of health economics. Arrow noted that people can not be deprived of health care and that the market mechanism will also play an effective role in the health sector (Savedoff, 2004: 139).

The main aim of health economics is to organize, develop and evaluate the effectiveness of health services. Activities such as monitoring the efficient use of resources in health services, establishing the prevalence and continuity of services, financing of health services in order to increase the benefit obtained by consumers, supply and demand, management, organization are all considered within the scope of health economics (Baloğlu, 2006: 123).

The interest in health economics has increased even more with the increasing expectation of life expectancy around the world and the positive developments towards the prevention of infectious diseases. The demand for healthcare services has increased rapidly as factors such as the proliferation of treatment options for diseases, drugs and technology have been developed. With the growing demand, there has also been a need to develop new methods to meet the healthcare delivery costs. The importance of health economics is increasing day by day in terms of demanding health services, determining supply and financing methods, and proposing solutions (Mushkin, 1958: 789).

EMERGENCY HEALTH SERVICES (112)

In an accident or life-threatening event, the practice is called first aid in order to prevent the causes of life from ending up, to protect the existing situation or to prevent it from getting worse. First aid is done without medication and it is the process until the health officials arrive. In addition, first aid can be done not only by health personnel, but also by anyone with first aid training or first aid knowledge (Ministry of Health, 2008: 16). Emergency medical services in the field of trained teams, interventions at the scene and the implementation of the hospital as a whole is called emergency assistance. It is the next step after first aid. Emergency medical services are different from first aid, are given by professional teams and medical equipment is used (Emergency Health Services Regulation, 2000).

The history of emergency health services in Turkey goes back to the last period of the Ottoman State. In the late 19th century, the Red Crescent organization was established in Switzerland and the Hilal-i Ahmer Society was established in the Ottoman State. Hilal-i Ahmer's first helpless teams were established in the fire that started in 1911 in the Aksaray region of Istanbul and this event was accepted as the first aid service in Turkey (Ege, 1995: 2).

Emergency medicine in our country in the present sense of the beginning of 1990 is based on. Dr. Emergency Medical Specialist from Dokuz Eylül University With John Fowler's initiatives in 1993, emergency medicine was accepted as a separate specialty, and the same year, the emergency medicine department was established in Dokuz Eylül and Fırat universities. 077 Khidr Emergency 112 Emergency Aid and Rescue system was passed in 1994. With the transition to the system 112, Emergency Health Services is connected to the Ministry of Health.

Nurses, nurses and health officers started to work in 112 teams established in Istanbul, Ankara and Izmir (Paksoy, 2016).

Emergency health services in Turkey are carried out by the Emergency Health Services Department affiliated to the General Directorate of Primary Health Care Services. In the provincial organization, the planning and supervision of the emergency health services is carried out by the Emergency Health Services Branch Offices affiliated to Provincial Health Directorates. The Provincial Ambulance Service Chief Doctors are responsible for the operation. All the units providing Emergency Health Services operating in provinces are responsible to Provincial Health Directorates (NEM, 2011: 37).

As of 2016, there are 2253 emergency health stations and 4227 ambulances in Turkey. 266 ambulances, 91 intensive care and obese ambulances and 60 motorcycles ambulances are also available in order to easily reach the sickness in all kinds of climate and natural conditions. Today, according to quality standards, 112 emergency health teams have reached a maximum of 30 minutes in rural areas and a maximum of 10 minutes in urban areas (Ministry of Health, 2014: 98).

THE PLACE OF 112 EMERGENCY HEALTH SERVICES IN TOTAL HEALTH EXPENDITURES

With the development of modern medicine, the number of treatment options has increased and the demand for health services has increased rapidly with the development of factors such as medicine and technology. In parallel with these developments, expectations for average life expectancy also increased. Thus, the healthcare economy and health expenditures have increased exponentially (Mushkin, 1958: 789).

The increase in the prevalence of health expenditures has also brought about an increase in investments in the health field. Along with these developments, expenditures on 112 emergency health services have also been increasing compared to the years. Table 1 shows the expenditures made to 112 emergency health services between 2011 and 2015.

Table 1: Expenditures for 112 Emergency Health Services by Years (Million)

Unit/Year	2011	2012	2013	2014	2015
TL	1268	1503	1555	1654	1738
USD	759	839	818	760	710
Share in Health Expenditures%	1,8	2,0	1,8	1,7	1,8

Source: TURKSTAT, Health Expenditure Statistics, 2015

According to Table 1, while expenditure of 1268 million TL was made to 112 emergency health services in 2011, 1503 million TL was spent in 2012. Expenditures for 112 emergency medical services increased in the following years. Expenditure was 1555 million TL in 2013 and 1738 million TL in 2015.

Graph 1: Share of 112 Emergency Health Expenditures in Total Health Expenditures (%)
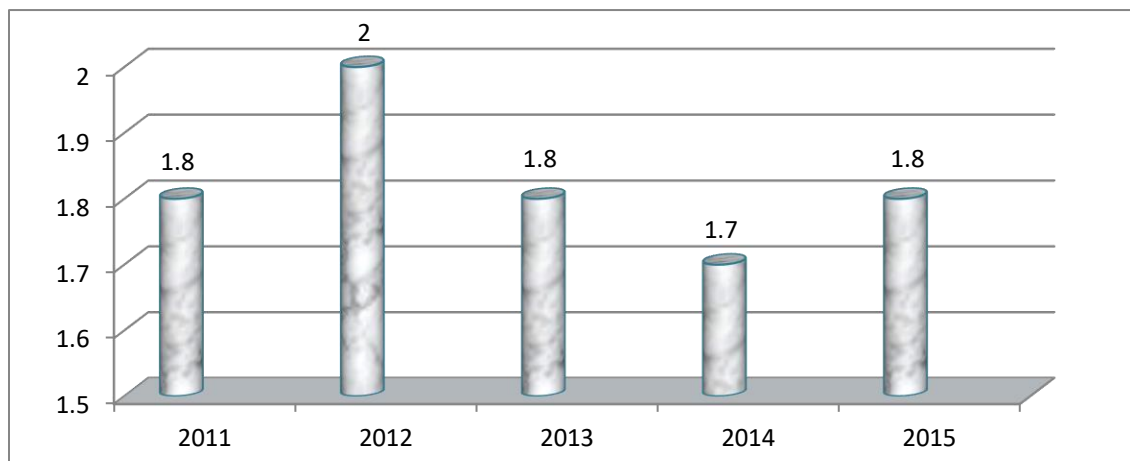
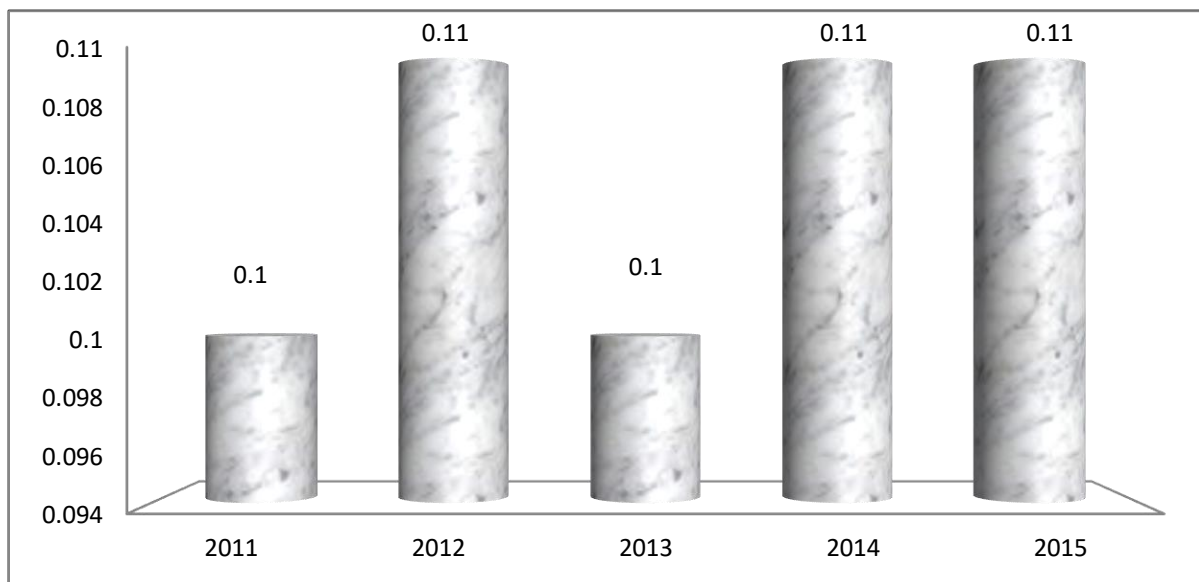**Source:** TURKSTAT, Health Expenditure Statistics, 2015

Between 2011 and 2015, the share of expenditures on 112 emergency medical services in total health expenditures increased from 1.8% in 2011 to 2% in 2012. While spending on emergency medical services declined in 2014, the share in total health expenditures was 1.7% and 1.8% in the following year.

Graph 2 shows the share of expenditures on 112 emergency medical services in GDP by years. According to graph 112 The share of expenditures on emergency medical services in GDP has changed little between 2011-2015. While the share of expenditures on 112 emergency medical

services in GDP in 2011 was 0.1% in GDP, it increased to 0.11% in 2012. The decline was realized in 2013 and this share was 0.1%, which was 0.11% in 2014 and 2015. Educated staff in the field of emergency health service presentation, as well as ambulances used in the presentation of the service, the snow paved ambulances were developed every year in 2007. In 2008, the helicopter ambulances started to provide effective emergency health service. Along with these developments, expenditures on emergency health services have increased over the years.

Graph 2: Share of Expenditures on 112 Emergency Health Services in GDP (%)

ource: TURKSTAT, Health Expenditure Statistics, 2015

While the establishment of an organized structure of urgent health services in Turkey has shown very recent history, the quality of the service provided is increasing every year. In the provision of emergency medical services, firstly health personnel working in the hospital were employed. In the following years, emergency medical technicians started to take part in the emergency medical services that have become organized. With this development, the personnel trained in the field of emergency health service played a leading role in getting more efficient results compared to the past years.

AN APPLICATION FOR MEASURING SENSITIVITY BETWEEN EMERGENCY HEALTH SERVICES AND HOUSEHOLD INCOME

The main purpose of the study is to investigate the impact of income on 112 emergency medical service requests. Towards this end, the definition, scope and presentation stages of 112

emergency health services have been examined. Considering that the use of 112 Emergency health services in our country has increased year by year, it has been tried to find out whether the income has an effect on the use of 112 emergency health services.

The scope of the study is composed of people who reside in Tokat province. The inclusion of settlements such as districts, towns and villages beside the provincial center of the survey enabled the determination of the number of urgent health care utilization of different income groups. The people who reside in Tokat provinces constitute our study universe. 400 of these persons were reached, but 65 people were out of the class and 335 people made the sample of the research. Personal interview and questionnaire method were used in the research.

In the research, face-to-face interviews and survey methods were applied from the primary data methods. In addition to the demographic information, participants were asked about the use of 112 emergency health services. The questions in the questionnaire were compiled from the previous studies of the World Health Organization and the Ministry of Health of Turkey and they were prepared as likert scale and yes-no. In his study of Sekaran (1992), he stated that the sample size required for places with a population size of 1,000,000 and over should be 384. Without this study, 400 questionnaires were sent to the field in Tokat province. Since 65 of these questionnaires were not suitable for analysis, 335 questionnaires were included in the analysis. According to the results of 335 questionnaires which have no problems about data collection from the questionnaires to 400 households, 55% of the respondents are women and 45% are men. 88% of respondents are between the ages of 17-45. Another result is that 43.9% of the participants have a bachelor's degree and 31.9% of them are high school graduates. Of the respondents, 38.7% are civil servants, 23.7% are students and 14% are housewives. About half of the respondents said that they reside in the province center, while about one in four stated that they reside in the district center.

Statistical package for the Social Sciences 16 (SPSS) program was used for the statistical analyzes. In the survey, frequency analysis was performed on the questions in the questionnaire. Differences were then analyzed for the questions identified in the questionnaire. Averages and standard deviations of the questions were taken. After these steps one way Anova test and Post Hoc test (Tukey) were applied for independent samples. Alfa method (Cronbach Alpha Coefficient) was used for reliability analysis of the questionnaire. The result of the reliability analysis of the questionnaire was determined to be 0.787. This result indicates that the level of reliability of the survey is high. Likert scale questions asked; Absolutely Participate in response 1 value, Participate in response 2 value, Undecided in response 3 value, Participate in response 4 in the given value, Absolutely Not Participate in response 5 values are given. In the questions asked yes-no; Yes answer 0 value 1 answer No answer.

Table 2 shows how many people in the income group answered the questionnaire. According to this, 51 people in the income group of 500 TL or less, 41 people in the income group of 500-1000 TL, 72 people in the income group of 1000-1500 TL, 54 people in the income group of 1500-2500 TL and 117 people in the income group of 2500 TL or more answered the questionnaire.

Table 2: Descriptive Statistics of Differential Analysis in Income Groups

Income Group	N	Mean	Standard Deviation
500 TL and Below	51	1,76	1,505
500-1000	41	1,63	1,502
1000-1500	72	1,58	1,496
1500-2500	54	,96	1,487
2500 TL and Above	117	,56	1,462
Total	335	1,30	1,601

The hypotheses to be used in the analysis to determine the effect of income level differences on the use of emergency health services are given below.

H_0: There is no significant difference between group averages in the number of calls of 112 emergency call centers in the last one year.

H_1: There is a meaningful difference between group average of the number of calls of 112 emergency call centers in the last one year.

The assumptions of the one-way variance analysis used in the analysis of constructed hypotheses will be examined. The groups in the study are in different income groups and are independent of each other. In the normal distribution of data, which is the second hypothesis, the intervals of the groups in our study were found to be close to each other and the data were found to be normal distribution. The last assumption is that the variances of the groups are homogeneous. If the p value is greater than 0.05 in the homogeneity test, it is assumed that the variances are homogeneous. The homogeneity test of the study yielded a p value of 0.111. According to this result, the variances of the groups are homogenous. The one-way ANOVA was significant as the

condition of the groups' variances was also homogenous. The results of the one-way ANOVA on the responses to the questionnaire are shown in Table 3.

Table 3: Analysis of Differences in Terms of Income in Emergency Health Service Use

	Squares Total	**Degree of Freedom**	**Average Squares**	**F**	**Significance**
Between Groups	3,891	4	0,973	4,020	0,003
In Groups	79,858	330	0,242		
Total	83,749	334			

A statistically significant difference was found for the general average of the responses of the respondents. H_0 hypothesis was therefore rejected (p = 0.003). At this stage, groups were found to be different from each other. If the group is different from the other, the answer will be searched using the Tukey test from multiple comparison tests. Tukey test results are shown in Table 4.

Table 4: Tukey Test Results

(I) Income Group	(J) Income Level	Mean Difference	Standard Error	Significance
500 TL and Below	500-1000	0,13	1,103	,988
	1000-1500	0,18	1,090	,925
	1500-2500	0,80	1,096	,023
	2500 ve Üstü	1,20	,083	,038
500-1000	500 TL ve Altı	-0,13	1,103	,988
	1000-1500	0,05	1,096	,999
	1500-2500	0,67	1,102	,049
	2500 ve Üstü	1,07	,089	,047
1000-1500	500 TL ve Altı	-0,18	1,090	,925
	500-1000	-0,05	1,096	,999
	1500-2500	0,62	1,089	,985
	2500 ve Üstü	1,02	,074	,021
1500-2500	500 TL ve Altı	-0,80	1,096	,023
	500-1000	-0,67	1,102	,049
	1000-1500	-0,62	1,089	,985
	2500 ve Üstü	0,40	,081	,008
2500 and Above	500 TL ve Altı	-1,20	1,083	,038
	500-1000	-1,07	1,089	,047
	1000-1500	-1,02	1,074	,021
	1500-2500	-0,40	1,081	,008

A statistically significant difference was found in the use of emergency health service between 500 TL and 1500-2500 for the income group and 0.05 for the income groups between 2500 and above (p = 0,023-0,038). According to the responses of the survey respondents, the average difference between income group of 500 TL and below and income group of 1500-2500 TL is

0.80; The average difference between income group of 500 TL and below and income group of 2500 and above was determined as 1.20.

A statistically significant difference was found in the use of emergency medical services between 500-1000 TL income group and 1,500-2500 level, and between 2500 and 0 0 income level at 0,05 significance level (p = 0,049-0,047). According to the responses of the respondents, the average difference between 500-1000 TL income group and 1,500-25,000 TL income group was determined as 0,77,500-1,000 TL income group and the average difference between 2,500 and above income group is 1,07.

A statistically significant difference was found between the income group of 1000-1500 TL and the income group of 2500 and above in terms of income in the use of emergency health service at the significance level of 0,05 (p = 0,021). According to the responses of the respondents, the average difference between the income group of 1000-1500 TL and the income group of 2500 and above was determined as 1.02.

A statistically significant difference was found between the income group of 1500-2500 TL and the income level of 2500 and above in terms of income in the use of emergency health service at the significance level of 0,05 (p = 0,008). According to the responses of the respondents, the average difference between the income group of 1500-2500 TL and the income group of 2500 and above was determined as 0.40.

When we look at the findings of the study, the mean difference between the groups and the probability values of p indicate that there is a statistically significant difference between the income groups. In other words, it is seen that the demand for urgent health services is sensitive to the income and the demand for urgent health services tend to increase as income decreases.

CONCLUSION

The definition of health varies according to countries, societies, sexes, ages, and many conditions that can be increased. In addition to the simple definitions of being healthy without a patient, there are scientific definitions such as the ability of each cell in the body to work in maximum capacity and full equilibrium. The concept of health is as important in many sciences as it is in economics. In economics science, health is defined as a product that can be bought or sold, and which can be both produced and consumed by consumers. The World Health Organization (WHO) refers to health as a state of full physical, spiritual and social well-being, not merely a lack of illness or disability.

The concept of health services is defined as all of the activities aimed at preserving the health of the person and the community, making the treatments, providing the disabled without being

dependent on the disabled, and aiming to make the health level of the society better. The most striking point of health and economic relations is that developments in the level of social health directly and indirectly affect social well-being. Deterioration of people's health condition will lead to some negative economic consequences. The health of the person who is unfit to work will suffer a loss of income, in addition to a certain expenditure within the treatment and a further loss of income. When this is considered in terms of the country, it is vital to have healthy individuals to rise in economic development and wealth level.

Health services were examined under three main groups. These are preventive health services, curative health services and rehabilitation services. The issue of working constitutes 112 Emergency Health Services in the therapeutic health care group. The main purpose of the study is to determine whether the income situation is sensitive to the 112 emergency medical service claim. To this end, a survey was conducted on the residents of urban and rural areas throughout Tokat province. It is aimed to reach people with different demographic characteristics in conducting surveys in different places of residence in urban and rural areas.

According to the findings of the study, there was a statistically significant difference in the average of 112 urgent health care requests of the income groups we formed. 112 Emergency health care request averages of 51 persons included in income group of 500 TL and below were calculated as 1.76. There was a statistically significant difference between income groups of 500 TL and below and 1500-2500 and between income groups of 2500 and 0,05 meaningfulness level (p = 0,023-0,038). According to the responses of the survey respondents, the average difference between the income group of 500 TL and below and the income group of 1500-2500 TL was determined as 0.80, 500 TL and the mean difference between income group of 2500 and above is 1.20. Another group in the study, the average of 112 urgent health care requests for 41 people included in the 500-1000 TL income group, was calculated as 1.63. A statistically significant difference was found between this group and the income groups of 1500-2500, 2500 and above, at the significance level of 0.05 (p = 0,049-0,047). According to the responses of the survey respondents, the average difference between 500-1000 TL income group and 1500-2500 TL income group is 0.67; The average difference between the income group of 500-1000 TL and the income group of 2500 and over is determined as 1.07. 112 urgent health care request averages of 72 persons in the income group of 1000-1500 TL were calculated as 1.58. There was a statistically significant difference between this group and the income group of 2500 and above at the significance level of 0.05 (p = 0.021). According to the responses of the survey respondents, the average difference between the income group of 1000-1500 TL and the income group of 2500 and above is calculated as 1.02.

This study examines the functioning of 112 emergency health services in Turkey, the characteristics of emergency health services, the expenditures made in this area, the current data in the field of emergency health services and the comparison of Turkey and OECD countries, as well as a small number of 112 emergency health care requests in Tokat province it is important to be one. The descriptive statistics used in the study and the results of the difference analysis show that the income situation is sensitive to the urgent health service claim and that as the income level increases, 112 urgent health care claim claims decrease. In general, an increase in the income level is expected to lead to an increase in the use of health services, whereas the use of 112 emergency health services may be the opposite. The underlying reasons for this are the fact that the middle and upper income households should firstly refer to family doctors, have a high probability of having preventive and preventive health services, stay in better housing, good quality of food and other similar living standards better than low income households can be shown. These causes directly affect the health status of households and reduce the use of urgent health services. In addition, demand for 112 emergency medical services can be reduced as income increases as families with higher income levels have access to transportation, communication among family members can be easily carried out with technological elements, and residency centers are city centers, making access to health facilities easier. The high cost of transportation to healthcare facilities for people living in rural areas, whose income level is generally lower than those living in the city, is another reason to increase the demand for emergency services. In the following academic studies, since the application area is not limited to a single province, but the analysis of the sensitivity of 112 provinces or provinces for urgent health services to income and other economic indicators and forecasting with different econometric models such as non-linear models for the problems in this area can shed light on policy decision makers it can create an important work space.

REFERENCES

Aggleton, P. (1990). Health, Routledge, London.

Akın, J.S., Birdsall, N. & De Ferranti, D. M. (1987). Financing Health Services in Developing Countries: An Agenda For Reform (Vol. World Bank Publications.

Baloglu, B. (2006). Health and Illness in Economic and Sociological Perspective. Der Publisher, Istanbul.

Bekir M. (2003). Health Problems of Turkey- Health Reforms During the Republican Period, Ankara, p1.

Bulutoğlu, K. (1981). Introduction to Public Economics. Filiz Bookstore, Istanbul.

Çilingiroglu, Nesrin. (2001) Economic Development and Health Economics, New Turkey, Issue. 40, July-August.

Ege, R. (1995). First and immediate aid in case of accidents, illnesses and injuries. Turkish Air Agency Printing House.

Goodwin, N., Gruen, R., & Iles, V. (2005). Managing health services. McGraw-Hill Education (UK).

Grossman, M. (1972). On the Concept of Health Capital and The Demand For Health. Journal of Political Economy, 80 (2), 223-255.

Hansluwka, H. E. (1985). Measuring The Health of Populations Indicators and Interpretations. Social Science & amp; Medicine, 20 (12), 1207-1224.

Kurtulmuş, S. (1998). Health Economics and Hospital Management. Publications of Change Dynamics.

Larson, J. S. (1991). The measurement of health: Concepts and indicators (Vol. Greenwood Publishing Group.

MEB (2011). Emergency Health Services, Ambulances, Ankara.

Mushkin, J. S.. (1958). Toward a Definition of Health Economics Public Health Reports Reports 73 (9): 785-794

Nadaroğlu, H. (1981). Public Finance Theory, 5th Edition, Filiz Kitabevi, Istanbul, 34.

Nadaroğlu, H. (1996). Public finance theory. Beta Basım Yayım Dağıtım AŞ.

Okur, A. R. (1992). Health and Health Insurance.

Özsarı, H. (2000). Health and Insurance. Insurance World Magazine, 472, 20-26.

Öztek, Z. (2001). Health Concepts. New Turkey Magazine, 39.

Paksoy, V. M. (2016). Comparison of international practice models in emergency health services: anglo-american and franko-german model.

Robinson J. and Elkan R. (1996). Health Needs Assessment. Pearson Professional Limited. New York.

Ministry of Health (2000), Emergency Health Services Regulation, RG, p. 24046.

Ministry of Health (2008). Training Guide for Trainers First Aid Modules, General Directorate of Health Education, Ankara.

Saltık, A. (1995). New Concepts in Health Economics. Society and Physician, 10 (68).

Savedoff, W. D. (2004). Kenneth Arrow and The Birth of Health Economics. Bulletin of the World Health Organization, 82 (2), 139-140.

Seedhouse D. (1986). Health: The Foundations for Achievement John Wiley, Chichester, England, 134.

Secured, Uma. (1992). Research Methods for Business: A Skill Building Approach, Second Edition, John Wiley & Sons, 450s.

Şenatalar, B. (2003). An Overview of Health Economics. Cumhuriyet University Medical Faculty Magazine 25 (4), Special Annex, 23-25.

Taban, S. (2006). Causality Relation Between Health and Economic Growth in Turkey. Socioeconomics, 4 (4).

Ministry of Health (2014). Basic Health Statistics Module Health Statistics Module.

Tekin F. (1987). "Financing of Health Services in Turkey", Anadolu University Journal of Economics and Administrative Sciences, Vol. 5, Number. 1, Eskisehir, 263.

Williams, A. (1987). Health Economics: The Cheerful Face of the Dismal Science. In Health and Economics. Palgrave Macmillan UK.

Wonderling, D. (2011). Introduction to health economics. McGraw-Hill Education (UK).

World Health Organization, WHO. (2000). The World Health Report 2000: Health Systems: improving Performance. World Health Organization.

Yeğinboy, E. Y. (1993). Evaluation of health services at national level.