



# The Journal of **Macro**Trends in Health and Medicine

## The Impact of Crisis on the Health of Citizens and in Healthcare: The Case of Greece

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### Abstract

*On this paper is conducted a study on the consequences of Greece's fiscal consolidation in healthcare and on the health of its population. The research focused on the effects of mental and physical health, created as a result of the economic crisis. Figures presented for the years 2008-2012. The research shows the direct affiliation of economic policies with health policies. Throughout the crisis, the governments of this country proceeded to cuts in public spending and thus in public health expenditures causing a complete decomposition of National Health Service. Due to the recession, the unemployment has risen in unlikely numbers having an almost 30% of Greece's population without insurance and without coverage for healthcare. This situation led to an increase in the use of drugs, many people started to drink, suicides are now one of the major problems that Greek society is facing, whilst many forms of depression have noted since the beginning of the crisis. Cancers related to anxiety increased along with oral and lung diseases due to smoking, which rose sharply in the examined period.*

Keywords: *Economic crisis, mental health, physical health, public health, social impact*

### 1. Introduction

Greece is a country that has being affected by the economic crisis and as a consequence has to face several important implications in economic, social and health terms. On the economic level, the country experienced the evolution of credit crisis to debt crisis that plunged its credibility and solvency. The recession led to the shrinking of the economy, revealing the endogenous weaknesses of society, and the failure of the political system to cope with the challenges. The victims of this economic situation are the vulnerable social groups, which experienced and continue to experience very strong effects of the crisis with the state being completely absent. Incidents involving violence, crime, poverty in all its ramifications (poor,

elderly, poor, addicted people) are experienced more intensely from these social groups due to social exclusion and ghettoization. In these groups have been noted problems of mental illnesses. As years pass and crisis gets deepened, these illnesses instead of being eliminated, they intensified more and more. Researches have shown that the main effect of the economic crisis is on the health of citizens, because of the increasing problems related to heart disease, carcinogenic diseases (increasing incidence and deaths from cancers of the lung, stomach and colon) that have been noted in such occasions. These health problems are associated (beyond heredity and way of life) with stress and chronic problems of mental illnesses that are exacerbated in the period of economic crisis. Furthermore deaths from drugs and alcohol abusers rose sharply during this period.

## **2. Material and Methods**

The method of this study is a literature review. The materials that have been used for this research paper are evidences which have been taken by statistical databases from national and international organizations (i.e. Organization Against Drugs (O.K.A.N.A.), Laboratory of Management and Evaluation of Health Services, International Harm Reduction Association, International Network of People who Use Drugs, World Health Organization, Research Institute of Mental Health (E.P.I.P.S.Y.), Eurostat, Organization for Economic Co-operation and Development (OECD)) and from scientific articles. The articles are researches from Greek and international foundations. The period of searching the data was from July to August of 2013. The impacts of crisis on the health of its citizens and its healthcare have been divided in five topics due to the increased incidents that have been noted in these topics in the period under review:

### *2.1 Increase in the use of drugs and in the incidents of AIDS*

The data of this topic were found in national and international drug organization. After reading and noting the content of articles and surveys, which have been taken by national level, it was found the correlation between the rising trends of Aids from the use of injectable drugs. It was considered necessary to further study the situation with keywords Aids and drugs in Greece in the period 2008-2012. The report of O.K.A.N.A. and E.P.I.P.S.Y. showed the exact rate of increase of Aids among addicts. Furthermore, it was studied and taken into account some of the opinions of scientists for this topic, which are presented in this work.

### *2.2 Alcoholism*

Following an investigation, it was observed an increase in admissions to rehabilitation centers during the examined period. The surveys that were read saw a difference of opinions between the rise and reduction of alcohol. On the one hand researchers argue that because of economic austerity and rising unemployment decreased consumption of alcoholic substances has been noted. On the other hand, the annual report of O.K.A.N.A. presents exactly the opposite results for the same period. Furthermore, the research from Athens University of Economics converges with research's result of O.K.A.N.A. These views are reinforced with reports of doctors and facts

from hospitals' records, showing increased incidents of excessive drunkenness. The researchers who claim that in Greece it has been a reduction of alcoholism, had as an argument the reduction of fines for excessive alcohol consumption by the police (This view is self-defeating because there has been an increased at the price of diesel followed by a reduction in the use of automobile vehicles). Due to lack of detailed data, it was rejected the notion of the reduction of the alcohol.

### *2.3 Mental Health*

Another factor that was included in the present study is the mental health of the population of Greece. This area was chosen because it showed interdependence with the economic crisis that hit the country. In the examined period, research conducted both international and greek institutes showed an increase in the use of antidepressants, tranquilizers and suicides. The data which have been used for the data used to record the progress of the mental health of the residents of Greece were taken from E.P.I.P.S.Y., The Lancet magazine, the greek newspaper entitled as To Vima and from the speech of Dean of the National School of Public Health Mr. Kyriacopoulos and from the article written by Mr. Elafrou. The studies which were conducted and were included in this research converged at the rising trends of antidepressants, tranquilizers and deaths relates to suicides.

### *2.4 Physical Health*

There is a connection in the physical health of people and their economic situation along with the economic course of the country witch, they live. Having studied a wide number of researches it was observed that economic crisis creates a rise in specific diseases as seen in the past in similar cases (The Great Depression, the economic crisis of Germany in '30s). The data which have been used in the research were collected by the World Health Organization (W.H.O.), Organization for Economic Co-operation and Development (OECD), from a study from International Journal of Clinical Practices and from an article written by Mr. Kremastinos. The recording of these investigations are considered necessary for the presentation of health situation in the country.

### *2.5 Healthcare and Hospitals*

Due to the economic crisis, the cuts on the public expenditure affected the National Health Service and thus the healthcare services provided by it. The Organization for Economic Co-operation and Development (OECD), Eurostat, the Laboratory of Management and Evaluation of Health Services of University of Athens, an article by Mr. Galanopoulos and an article from Greek Files of Medicine helped to collect and record the situation in hospitals and health services in the country.

### 3 Results and Discussion

#### *3.1 Increase in the use of drugs and in the incidents of AIDS*

With the outbreak of the financial crisis, the austerity measures, budget cuts, layoffs and the general economic contraction led to the deterioration of the health system. As a consequence thousands of patients and addicts, who are in rehabilitation programs, are incurring. At the same time, the state still spends public funds to preserve, maintain and introduce thousands of drug users in prisons. According to a government report, the use of drugs in Attica reached the number of 12,000 users in 2009, while in 2008 users numbered 7.400 International Network of People who Use Drugs, (INPUD). Greece has always been a country in with low drug use in relation to the rest of Europe. According to the last report of O.K.A.N.A. (Organization Against Drugs), Greece is the penultimate country in the long-term drug users with a 3% stating that they have taken drugs more than a year (Figure 1). Greece and Cyprus are the countries with fewer long-term addicts in the European Union (EU), having an 89% saying that they have never taken drugs. Although Greece is one of the countries with the fewest users in Europe, it is noteworthy that in recent years there's been an increase in the drug use (compared to previous years) to students 15 years old. It is obvious that students in adolescence are more vulnerable and thus get easily addicted as they drift; they imitated and tend to try things in order to gain experience. The Survey of Research Institute of Mental Health (E.P.I.P.S.I.) with a total sample of 4,944 students, in 306 schools, in Greece showed that from 2006 to 2009 has been indicated a steady and sustained increase in inhalants and cannabis, while a sharp increase from 2009 presented in other illegal substances. A simultaneous reduction occurs in ecstasy pills and sedatives or hypnotics (without prescription) (Figure 2). Between 2009 and 2011, death rates and drug addicts have increased rapidly. According to information provided by the British media, the financial crisis hit and continues to affecting injecting drug users who, having no access to clean syringes they share used syringes, resulting a high risk of transmitting AIDS International Network of People who Use Drugs, (INPUD). Furthermore they do not receive the necessary medical treatment and find hardly substitutes for heroin and antiretroviral drugs they need International Network of People who Use Drugs, (INPUD). According to Figure 3, the annual report of O.K.A.N.A. observed that in 2009, when Greek economy fall into recession the incidence of HIV among injecting drug users (IDUs) increased greatly in comparison with previous years. In 2010 there's been an improvement due to the action of O.K.A.N.A. in the capital, and because of the fact that many users have asked for help and went into rehabilitation programs. The 85% of users who entered the rehabilitation program in 2010 were heroin users, Annual Report 2011, (2011, pp. 97). The results of 2011 show a huge increase in the incidents of HIV among injecting drug users according to O.K.A.N.A. As characteristically noted in the report in July 2011, has been reported a substantial rise of new cases of infection among injecting drug users from AIDS. According to the Greek Ministry of Health and the relevant bodies (such as the Center for Disease Control and Prevention-HCIDC). AIDS among drug users has increased over the past months by 1000%; Iatropedia Beta, 16/11/2011. The program for users is not functioning properly. According to The Lancet magazine, very few people had access to programs with benefits of € 700 per month and faster admission to drug

substitution program Kentikelenisa, Karanikolosb, Papanicolasd, Basuce, McKeebc, Stucklerac, (2011, pp. 1457 - 1458, 22). These programs offer access to synthetic opioids and usually have waiting lists of 3 years or more in urban areas Kentikelenisa, Karanikolosb, Papanicolasd, Basuce, McKeebc, Stucklerac (2011, pp. 1457 - 1458, 22). In order someone to get into a drug treatment program, has to wait in a huge waiting list.

### *3.2 Alcoholism*

Another impact of the economic crisis is the rise of alcoholism and the increased deaths from it. There is no doubt that the economic crisis greatly increased the incidence of addictive substances such as alcohol or smoke. Unemployment, financial insecurity, anxiety and stress, caused by the economic recession threaten the population of Greece. Figure 5 shows the increasing levels of alcoholism in Greece from 2008 to 2010. The annual report of O.K.A.N.A. shows that the admission rates into rehabilitation centers grew significantly in 2009, a year after the financial crisis hit. From the O.K.A.N.A. data we can see that in 2009, arrivals in rehab doubled from the previous year, while in 2010 also increased significantly. The new imports for 2010 concern 91.5% (745 persons) in total imports (N = 814). 65.3% of treated were aged over 40 years old; Annual Report O.K.A.N.A (2011), whilst 22% of clients in treatment had (in the reporting year) diagnosed with a psychiatric problem, almost double compared to 2009, which was 10.7%; O.K.A.N.A Annual Report (2011). The increase of addictive substances is associated with persons that have degrees from the highest level of education or entrepreneurs who combine alcohol with relaxation at the end of a difficult day. With the outbreak of the financial crisis, jobs are limited and many are threatened by unemployment; depression and poor mental health lurks many unemployed or many future unemployed who see their jobs being lost. The absence work or job loss has the effect of reducing the level of welfare causing the growth of mental disorders (depression, violent behavior, and others). According to research conducted by the Athens University of Economics in 2008 with a total sample of 1301 people showed that stress pushes the Greeks in cigarette and tobacco. During a particularly stressful day, 22.3% smoked more than normal Elafrou, (2008). The overall rate of increased cigarettes climbs even more to persons which they are under 30 years old (58% smoke a lot or somewhat more), have lower incomes and among the unemployed the rate reaches its peak at 75% Elafrou (2008). Young people up to 29 years who have higher education and businessmen seem to have linked the treat of anxiety with many glasses at rates above 20%, 23% and 26% respectively Elafrou, (2008).

### *3.3 Mental Health*

Mental illnesses rise in times of economic crisis affecting the lower classes. Modern sociologists argue that economic indicators are directly related to indicators of mental health. The poor are the first victims of the economic crisis because of low-income insecurity and social exclusion, which they persist. It is clear that this social group, which has a low level of education, and social discrimination, are more vulnerable to mental illnesses. In times of economic crisis government stops the spending for social safety nets having as a result many people not to have proper

education, medical care and other basic goods. The poor are therefore at high risk for mental and physical health, and they also are more vulnerable to suicides, homicides and divorces. In recent months the emotional support lines associated with the financial crisis increased significantly. Phone lines for psychological support record an increased number of calls for psychological problems associated with the economic crisis. The Helpline Depression of the "Anti-Stigma" program of the Research Institute of Mental Health (E.P.I.P.S.Y.), in recent months has recorded an increased number of calls with topics relevant to financial problems and difficulties in work. 27% of calls with requests for psychological assistance are related to economic crisis and the difficulties in the workplace. The data from the Hotline show the psychological effects of the economic crisis to affect more men (65%) and the most productive age group (30-45 years) and younger individuals (18-30 years old), whilst they look with intense stress the lack of job prospects and conditions specified by the working future. Even the rise of antidepressants is another dramatic consequence showing the bad mental health of citizens due to economic crisis. In 2010 8,400,000 formulations of antidepressants were sold when in 2006 sales were at 6.49 million Elafrou (2011). Depression has been called the disease of the crisis. Elafrou (2011) at high levels remains the consumption of anxiolytic drugs (9.3 million, although doctors have become more sparing in prescribing them), as well as the sleep inducing - tranquilizers (2.1 million) Elafrou (2011). The more the crisis gets worse more people lose jobs or they are threatened with dismissal. This situation, combined with the increased standard of living and the hectic pace of life, the citizen of cities are more threatened than the people in the province. Mr. Kyriacopoulos, Dean of the National School of Public Health, announced in a conference of the Union of Psychiatrists that the use of antidepressants increased by 35% since 2006 Galanopoulos, (2011). The increase of stress has a dramatic impact on human health. In a survey made by English universities for the Greek mental health in time of crisis and published in The Lancet magazine, observed that suicides, depression and use of antidepressants increased from 2007 to 2009. More specifically, six academics from three prestigious universities of Britain observed the deterioration of mental health in a period where a country experiences an economic crisis. The survey was conducted in Greece with a total sample of 26,489 people. Suicides rose by 17% in the period 2007-2009 and between 2009-2010 it has been noted an increase of 25% Kentikelenisa, Karanikolosb, Papanicolasd, Basuce, McKeebc, Stucklerac, (2011). The Minister of Health, reported an increase in suicides by 40% in the first half of 2011 compared to the same period of 2010, while the national suicide hotline recorded that 25% of callers faced financial difficulties Kentikelenisa, Karanikolosb, Papanicolasd, Basuce, McKeebc, Stucklerac, (2011). The same period, the media reported that the failure of households to pay their debts could be a key factor in the increase of suicides Kentikelenisa, Karanikolosb, Papanicolasd, Basuce, McKeebc, Stucklerac, (2011). Furthermore, the Ministry of Health notes that in the period 2007-2011 the rate of suicide attempts rose by 40% Galanopoulos (2011). The rise of the suicide rate of a country can be considered a measure for the mental health of its residents. What emerges from this research is that the suicide rate shows the mental health of a country. The rise of the suicide rate of a country can be considered a measure for the mental health of its residents. What emerges from this research is that the suicide rate shows the mental health of a country. Insecurity, uncertainty about the future, anxiety and constant stress worsens, and then the depression plays the lead role. Suicide

attempts are gaining day-by-day more ground. Most cases of suicide are presented in large urban areas such as Athens and Thessaloniki, while remarkable is the suicide rate in the region of Thessaly Galanopoulos (2011). Finally in a telephone interview with one of the researchers of Great Britain in Greek newspaper noted that Greece is the country with the most cases of suicide after Ireland. Greece is the second country in suicides in Europe affected by the economic downturn. Suicide is the tip of the iceberg when it comes to mental health problems To Vima (8/7/2011). Suicide itself is a relatively rare event, but where there is an increase in suicides, they have been new cases of depression also To Vima (8/7/2011). Indeed the economic crisis is the pillar of the phenomena of social pathogens and is responsible for the mental health of citizens from a country that is mired in recession.

### *3.4 Physical Health*

Economic crisis has a direct impact on the health of citizens. The index of mortality has been associated with the index of unemployment and thus with the economic crisis. There has been an increase in mortality from cardiovascular diseases, increased mortality due to respiratory infections, chronic liver diseases, suicides and homicides Falagas, Vouloumanou, Mavros, Karageorgopoulos, (2009). Also, researches related to studying the consequences of economic crises in health showed an increased mortality of infants Falagas, Vouloumanou, Mavros, Karageorgopoulos (2009). Figures 6 and 7 show that health problems became more pronounced during the recession years in the country. Health problems such as cancer, cardiovascular disease and the ratification of the liver increased. Figure 6 shows the data of incidents and deaths related to cancer and occurred in the country during the period 2008-2012. As shown in the figure, lung cancer has increased in the male population by 48.4% in terms of incidents, while deaths increased by 35.6%. The female population rate of incidents and deaths are very low and they move in single digits. The rapid increase of lung cancer in the male population is occurring because they feel more stress due to the growing insecurity and job loss. According to a survey in 2009 Greece is the first in the world regarding tobacco consumption, meaning that the Greeks smoke more than the entire world. Kremastinos D., (2009), Iatronet. In a research conducted by OECD for the year 2011, Greece had the highest smoking rate with 40% of the adult population to be considered as smokers Health at a Glance, OECD Indicators, 2011.

During the crisis there was an increase of the rate of cancer in the stomach mainly in men. Some experts argue that the stomach is the second brain and that it processes and reproduces the stressful stimuli. That's why the tumor in this area of the body has increasing trends in the crisis. Another important condition is the increasing incidence of cancer of the lips, oral cavity and pharynx. The main reason for the rising trends in these areas is the smoking and the intense stress, which promotes an increase in autoimmune diseases. In 2011 according to a survey conducted by the World Health Organization (Figure 7) showed that the higher mortality rate were due to strokes, with the second largest percentage being the cardiovascular disease. Historically cerebral episodes and heart problems were moving always in high levels compared with other European countries. The economic crisis, financial distress, intense stress and long-term consumption of smoke led to the first two causes of death in the period under review. The

lung cancer and breast cancer are the next, while the fifth position is occupied by traffic accidents. The proportion of deaths due to lung cancer is the 16th worldwide among the Member States of World Health Organization. In the sixth place are indicated deaths due to diseases related to the respiratory system. Panic attacks, anxiety disorders and the difficult economic situation resulted most incidents related to asthma to make upward trends with the country, to rank second in deaths from respiratory problems. The rest causes of death are cancers of the colon, deaths from lung diseases, deaths from kidney disease and at the end the leukemia. It is worth noting that Greece ranks second in deaths from leukemia worldwide.

### *3.5 Healthcare and Hospitals*

The National Health Service (NHS) has too many problems to resolve such as the nursing shortage, and the inability to provide primary health care due to shortages in medicines and healthcare equipment. The problems continue with the increase in demand due to the aging population (a problem that Greece is facing for many years). The elderly dependency rate is showing an upward trend rising from 28% that it was in 2008 to 29.25% in 2011, causing serious problems for the country, because the fewer people of working age, the fewer the people can support health expenditures related to public health expenditure OECD, (2012). As a result the patients to be waiting in queue for surgery or they end up in a ranch in the hallway of a hospital. Finally the mismanagement of all these years and the waste of resources have resulted the huge deficits of hospitals to be skyrocketed. According to a research by the OECD, Greece in 2010 held the 18th position among the Member States of the European Union on health expenditure as percentage of G.D.P. Specifically, the Greece spent on public health expenditure 5.6% as a percentage of GDP Eurostat, OECD health data 2012, (2012). Countries that located directly below Greece in expenditure on public health (Hungary, Estonia, Romania, etc.) have a much smaller G.D.P. and their health services are considered inadequate. However, Greece has one of the most costly systems for pharmaceutical expenditure in the 27 countries of the EU spent 4.45 billion euros annually by 2010 Eurostat, OECD health data 2012, (2012). These costs make it the 5th place among EU countries. This fact can be characterized as oxymoron because the pharmaceutical expenditure, are added in the expenditure on public health. It is evident that despite the high pharmaceutical expenditure, the percentage expenditure on public health is one of the lowest. With the signing of the memorandum the reduction of fiscal deficit had been set as a primary target. As a consequence, measures were taken also for the health service. The cuts of around 1 billion euros that were made brought dramatic consequences on the welfare state of the country. Although the Health Minister has achieved his objectives did not calculate the collateral damages. These were the people, who now due to their economic status prefer the NHS for their healthcare. According to estimates the visits to outpatient departments of public hospitals have risen about 30%, and visits to private clinics have been respectively limited to what is strictly necessary Kiriopoulos I., Tsianti B (2009, pp. 834-840). This shows that in the early months of 2009 imports were increased in public hospitals. With the passage of time more and more people are choosing public hospitals for their healthcare. According to Professor of Social Medicine Alexis Benos demand for public and free health services grows exponentially, following the loss of income and loss of insurance coverage of households Galanopoulos (2011).

The infrastructures of the NHS could not operate correctly when there was economic growth, meaning that it does not have the necessary requirements to be able to function properly in a recession and cuts. Because of the staff shortages the quality of services that provided to the patients is poor. Across the country several clinics ask patients' relatives to buy the materials they will need. The government has set a target to reduce pharmaceutical expenditure by 800 million euros for the years 2013 to 2014, while in the 2012 have reached the reduction target of pharmaceutical spending by 1 billion euros. Furthermore 30% of people did not receive any health benefits because they are uninsured. Shortages of pharmaceutical resources in health centers are due to huge debts that accumulated towards suppliers. As a result many patients who are in high risk do not have the proper and necessary care that the NHS has to offer them. Households for primary health care services pay from their own pockets the amount of 62.1%, while 28.6% are covered by pension funds and 9.3% by the state as shown in Figure 8 Laboratory of Management and Evaluation of Health Services, University of Athens (2011). On the other side sections in hospitals are facing sub function due to lack of personnel (3000 positions in key medical staff and nurses in 25000), the rise in demand for public health centers and simultaneous cuts due to the economic crisis in the health sector. Today the 133 public hospitals in the country are facing huge shortages of basic materials.

#### **4. Conclusions**

The present study proves that indeed the economic crisis has straightly affect mental and physical health of the citizens of a country. The case of Greece has all the features to consider in detail the impact that an economic crisis has in the population. The conclusion is that the lower classes affected by the economic crisis had an impact on physical and mental health. A country in the midst of a crisis has tremendous deterioration in mental health. More specifically, they developed cases of panic attacks, mental disorders, alcoholism, increase in consumption of drugs and terrible increase in suicides. The mental health of an individual is intimately linked with unemployment and the economic status of the individual. Within the period under review suicides increased (the rate of suicide in Greece was always at low rates). Surveys showed that the population exceeded Greece is the first nation in the EU with the highest rates of mental disorders after Ireland.

Due to the lack of welfare state virus outbreaks of HIV grew. The increase of incidents in public hospitals in a period public spending cuts led to poor quality health services and because of the crisis more and more people are turning to public health. People who belong to middle and lower classes, unable to cope with their financial obligations developed health problems in the respiratory, heart, lung due to increased tobacco and cigarette consumption. Problems observed also in the liver and the stomach.

**Appendix**

Figure 1

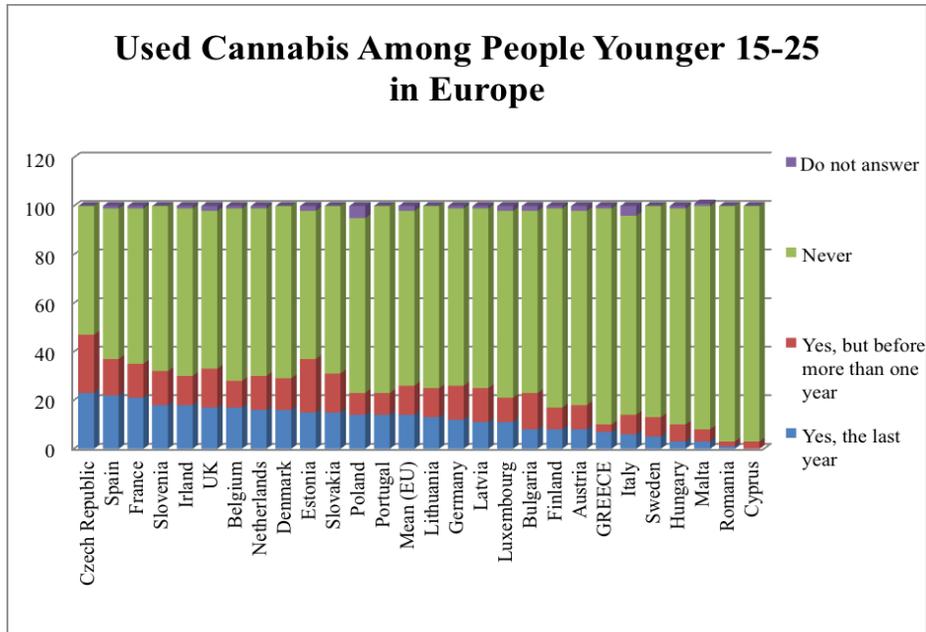


Figure 2

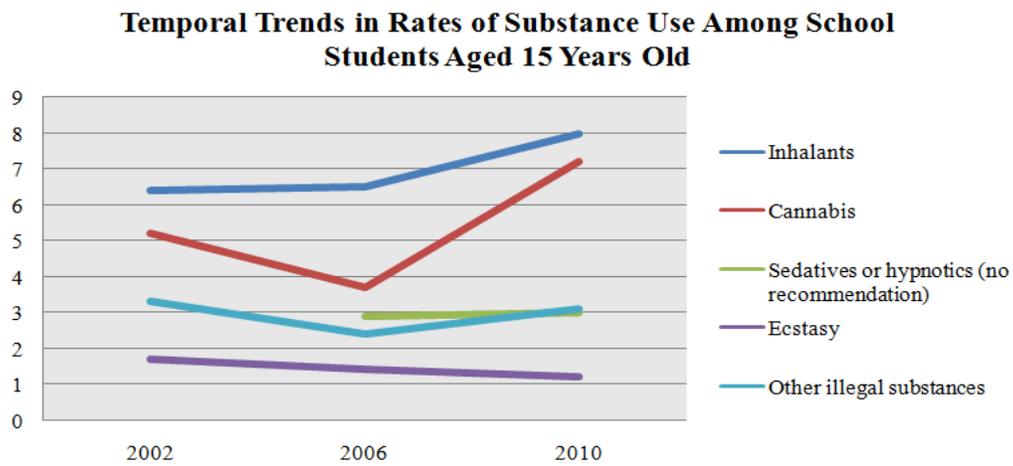


Figure 3

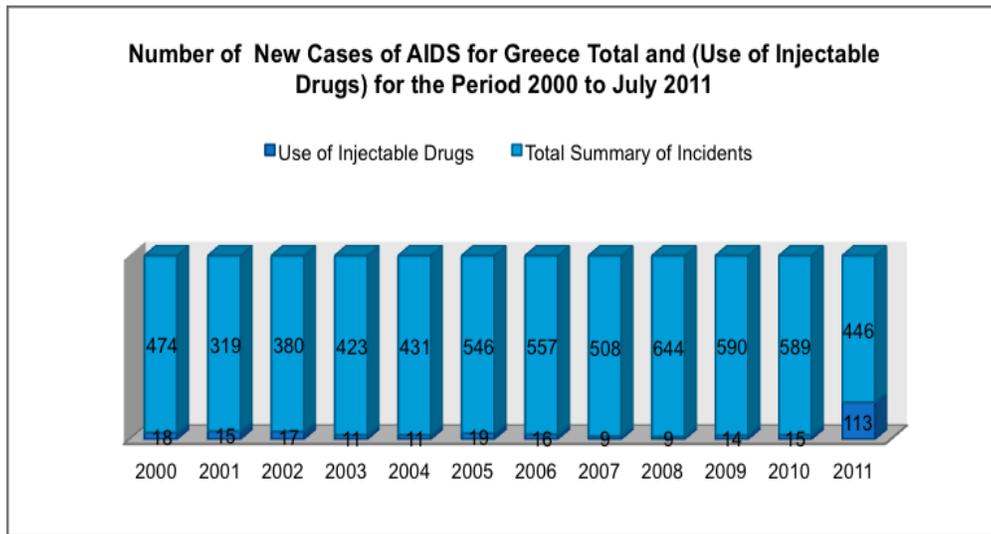


Figure 4

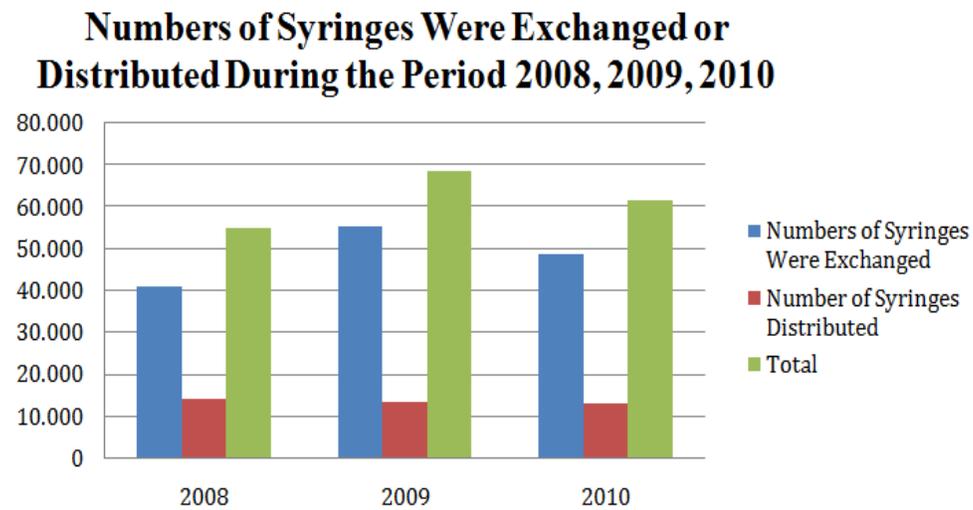


Figure 5

**People with Alcohol Addiction: People in Therapies and Imports (2008-2010)**

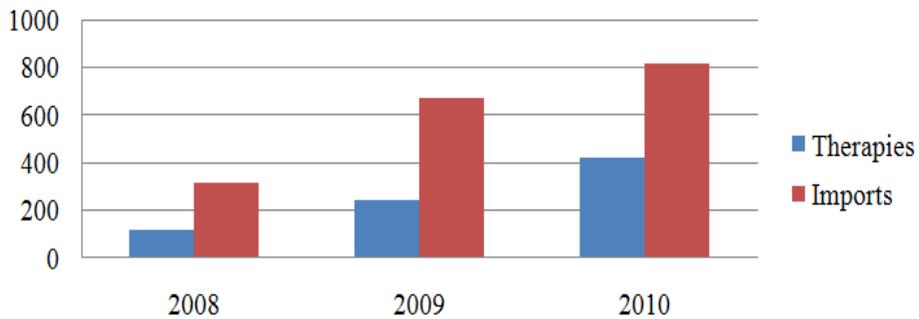


Figure 6

**Estimated Incidence and Mortality for Cancer in Greece**

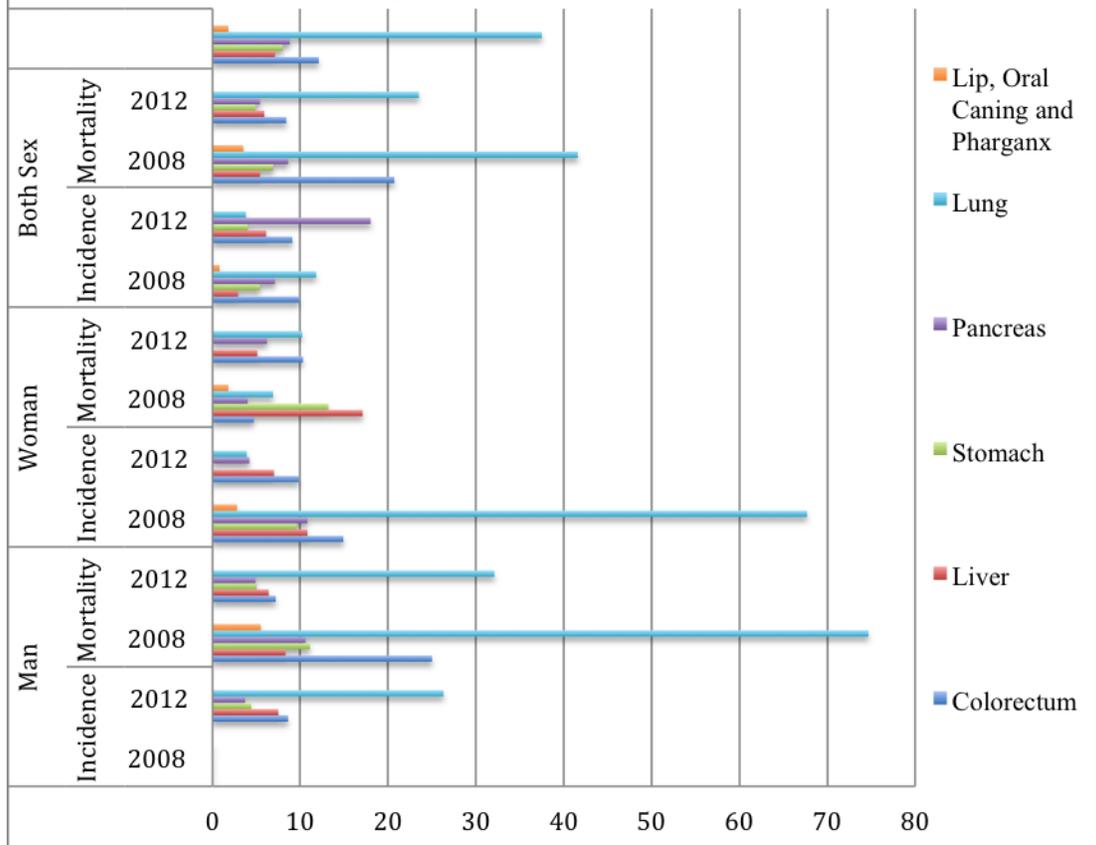


Figure 7

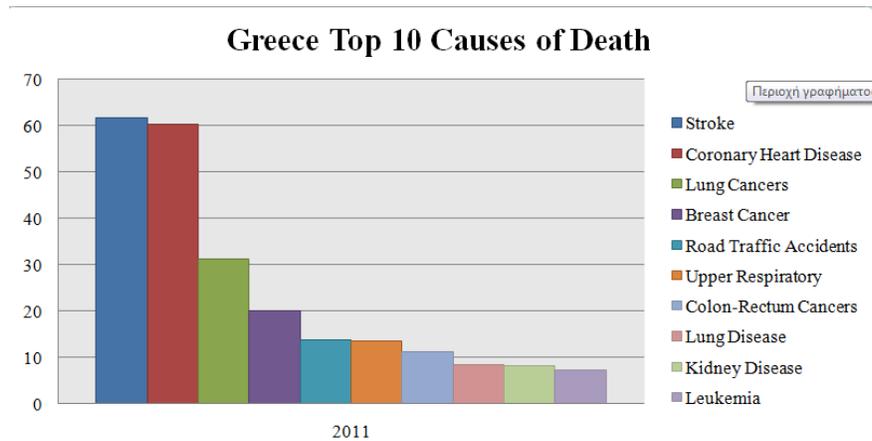
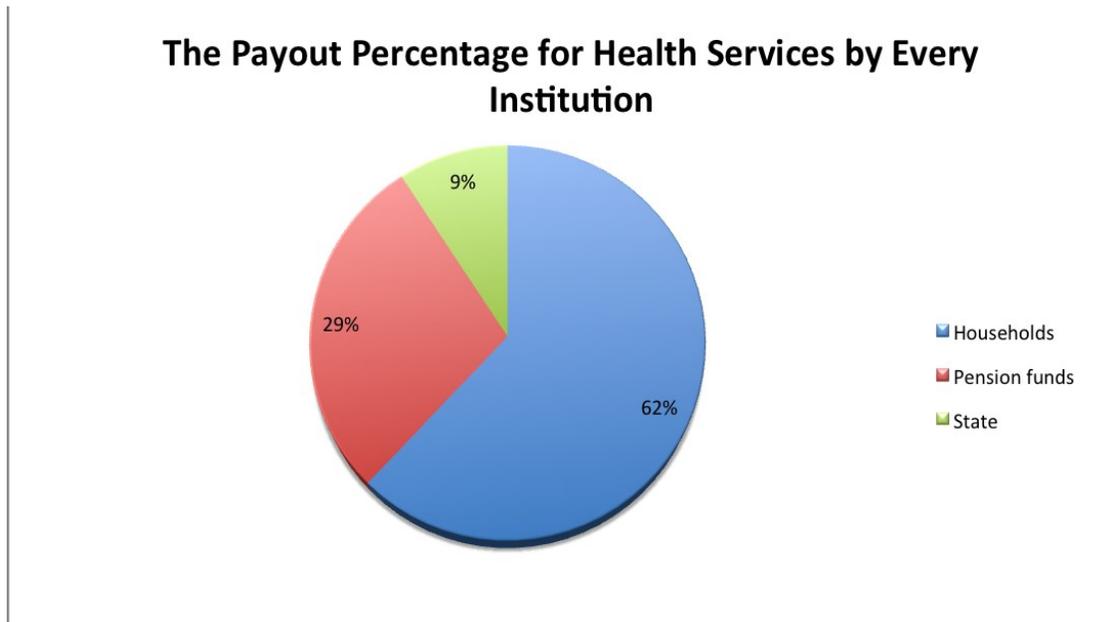


Figure 8



**Notes**

1. In Greece the nursing staff is not sufficient to meet the needs of patients. That's not just because it is much less than the needs of each hospital, but it is not sufficient also for the fact that in most nursing departments on duty service nurses come from secondary education (assistant nurse) and they don't not have the necessary knowledge and the jurisdiction to deal with the situations that might occur wisely. The framework defines a compulsory of at least one nurse from technological or university education.

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