HEALTH SYSTEM REFORMS IN THE REPUBLIC OF MACEDONIA

(1991-2010)

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Abstract

Objectives.

The principal objectives of this research is to investigate and evaluate the health system reforms that occurred in the R. Macedonia since independence of the country in 1991 to present days.

Methodology.

We conducted desk research of all available scientific literature in English and Macedonian languages on the health sector reforms, review of health legislations, and relevant documents available at the Ministry of health and Health insurance fund. Official data on demographic and health status indicators were collected from the Institute of Public Health, State Statistical Office, and were doubled checked with available international data sets. In addition, we conducted interviews with number of stakeholders working in the health care system to assess their perceptions on the impact of the health system reforms.

Results.

The Republic of Macedonia has inherited from former Yugoslavia health system with widespread and easy accessible health infrastructure, big hospitals, regional network of institutes of public health responsible for preventive activities, as well as notion of social ownership of health facilities. Since independence in 1991, the health system was reestablished to protect and promote the values of solidarity, equity and participation. Health system is predominantly financed by compulsory social health contributions of 7.3% from the gross salary of employees. Over the past two decades monopoly position of the Health Insurance Fund as single purchaser of health care services limited fragmentation of scarce health resources. However, more recently financing of the HIF is put into jeopardy due to increased number of insures, smaller transfer of funds from the central budget and generous basic benefic package. We recognized three waves of health system reforms in Macedonia: post-socialistic, pro-market, and manifesto driven period. These periods are selected on the basis developed and implemented reforms over specific period and political developments in the country. Over the years, poor maintenance, low efficiency and high operational costs has increased out of pocket expenditures for health, and reflected on the deterioration of public hospital infrastructure. This has reduced the quality in provision of health services in the public facilities. In parallel to these processes, liberal health care market regulation led towards trend in commercialization of the health care services, and investment in new private for-profit hospital services. Long transition and ineffective reforms in the public health sector forced huge number of health personnel, to move to the private sector. Many citizens disappointed in the quality of services provided in the public health sector, decide to opt for the services in private health care facilities, even without available health insurance.

Conclusions.

Despite many reforms and initiatives, political promises and actions, health sector reforms in the R of Macedonia are rather fragmented and overall does not present success story. The key problems are poor efficiency and quality of the services provided in the public health facilities; distortion of the social health insurance system and politicization of health sector system. This paper argues that in order to protect the system, public health facilities should be made more autonomous, efficient and more independent from direct influence of politics. To maintain the values of solidarity and equity, health system financing should be supported with additional funds from the central budget to cover the expenses for the previously uninsured.

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Background

Republic of Macedonia is situated in the middle of the Balkan Peninsula. The country with an area of 25 713 km^2 belongs to the group of relatively small countries in Europe. R. Macedonia neighbors are Bulgaria to the east, Albania to the west, Serbia to the north and Greece to the south. Estimated population size made by State Statistical Office on June 30th 2008, shows total number of 2.046.898 inhabitants, or 1.026.022 males and 1.020.876 females [State Statistical office, 2009-a]. The multiethnic composition is important characteristic of the country. According to the last census majority of the population are ethnic Macedonians (64.18%), while minorities are Albanians (25.17%), Turks (3.85%), 2.66% Roma, 1.78% Serbs and 0.4% Vlachs (Census, 2002). The number of inhabitants is relatively steady throughout last 20 years. According to the official statistics, there was a slight decrease in population in the early years after independence of the country from former Yugoslavia in 1991, which may be due to the emigration of ethnic non-Macedonians to their native newly independent countries, that emerged from former Yugoslavia (Croatia, Slovenia, Bosnia and Serbia). The average population density in 2008 is 79.61/km^2. There are exceptionally significant changes in the demographic structure. The ageing index (the rate between older and younger population) has climbed up from 0.18 in 1948 to 0.62 in 2008. The proportion of urban population, defined as population living in the cities, is steady at 60% since the independence. The life expectancy at birth in 2008 is 71.95 for males, 76.14 for females (the average is 74.0), which represents a slight increase compared to previous years, while the gender differences has remained the same, in favor of females. The life span in Republic of Macedonia is five years lower than the EU average [World Health Organization, 2010]. Child health indicators are valid determinants for the development achieved by single country, as a result of investment in health professionals, the network of health institutions for maternal and child health, programs for active maternal and child health, program for immunizations, developed patronage service and quality of health services. In this sense, the infant mortality rate (IMR) in Republic of Macedonia constantly decreases. While in 1970 IMR was 88/1000, it shows rapid decrease to 31.6/1000 in 1990, and 9.7/1000 in 2008. For the first time in 2008, the IMR was reduced to less than 10/1000 live births [State Statistical office, 2009-a; World Health Organization, 2010].

Since the independence, Republic of Macedonia has undergone several administrative divisions. Under the federal organization of former Yugoslavia, Republic of Macedonia was divided into 30 municipalities. After the independence in 1991 new territorial organization was proposed consisted of 124 municipalities. With the latest administrative division from 2004 these number decreased to 84 municipalities. Only within the capital Skopje there are 10 new municipalities. In total there are 1762 populated places, 34 of which are considered as cities and the rest of them as villages [State Statistical office, 2009-b].

1.1. Economic data

Since the independence in 1991, the Republic of Macedonia's domestic economy has seen radical reforms in order to fully establish market economy structures. The country experienced hyperinflation in early 1990s. Since 2001 the Central Bank has employed a very strict monetary policy to avoid inflation, and this has resulted in macro-economic stabilization, as well as price stability in goods and services [Gjorgjev et al., 2006]. The World Bank data indicate total GDP of 4471 million US$ back in 1990, that doubled in 2008 (9521 million US$) [The World Bank, 2010]. The Republic of Macedonia faced enormous inflation rate of 1690% in early 1990's. But, in the last 10 years economy is stable and inflation is not higher than 10%. State Statistical Office for 2009 reported that unemployment rate is 32.4%, while the poverty is estimated to be 21.7%. According to these estimates 50% of Macedonians are considered to live in poverty. It is reported that the most significant determinants of poverty are the size of the household and the number of employed person within the family [The World Bank, 2003]. However due to the fact that there is large informal economy reported in Macedonia the figures, especially those related to unemployment rate should be considered with caution.

1.2. Health care expenditures

Public sector expenditure on health as percentage of total government expenditures ranges from 14.7 % in 1995, to 15.8 % in 2000, and 2005[3] [HFA, 2010]. The estimates for private expenditure on health as percentage of total expenditure on health are 27.6% in 1995, 29.1% in 2000 and 29.6% in 2005. According

[3] 2005 is the latest available year in the data base of WHO.

to these data, public sector expenditure as percentage of total health expenditure is around 70.4%. Total expenditure on health as percentage of GDP was 7.6% in 1995 and 2000, and 7.8% in the last year available, 2005. Additional important characteristics in health financing for comparison with other countries in the region is purchasing power parity (PPP) for Macedonia estimated to be 569 US$ in 2005.

1.3. Health resources

Traditionally, curative health care is organized at three levels: primary, secondary and tertiary, while preventive health care is organized through the network of one national Institute, and 10 regional Centers of Public Health. Official data show that total number of physicians and other health professionals (dentists, pharmacists, nurses, midwives, laboratory technicians and others) is relatively stable throughout the past twenty years. There were 4396 physicians in 1990, and 5052 in 2007. In total there were around 12838 other health professionals in 1990, as compared to 14082 in 2007 [Institute for public health, 2009]. The exact numbers of health personnel might be underestimated in years prior to 2006, especially for the private physicians and other health professionals. Institute of Public Health did not collect complete reports on the staff employed in private health organizations. However, this has changed with the process of privatization of the primary health care as well as emergence of new private hospitals. Now the data for health staff and procedures conducted in private organizations are routinely recorded. Over the past two decades the massive hospital capacities was reduced, but not sufficiently. Rationalization of the hospital capacities is evident in reduction in the number of hospital beds from 11119 in 1990, to 9326 in 2007, but the number of hospitals remained unchanged. The average length of stay in hospitals decreased, in favor of home treatment and patient care. Day care hospitals are promoted, day care treatment centers (community mental health centers, addiction diseases treatment centers), and patronage services were more developed.

1.4. Normative issues

At the beginning of the 1990s the health system in Macedonia was organized within the so-called “self-governing communities” and was governed and owned by 30 municipalities and the city of Skopje. The health care was financed on the municipality level along with a solidarity fund on a central level to finance those municipalities that contributed less income for health and thus were not able to provide appropriate health care. In August 1991 the new Health Care Law (HCL) was adopted and served as basis for the establishment of the current system of health insurance. The HCL law is based on the values of equity, solidarity and reciprocity and universal coverage of the population [HCL 1991]. The Health Care Law defines the organizational structure of the health system, and it envisaged the formation of the Health Insurance Fund and the mechanisms for financing and the delivery of the health care services. The Health Insurance Law (HIL) adopted in 2000 provides rights, obligations and responsibilities to plan and collect the revenues for compulsory health insurance, and determine the rights of insurees through additional public acts. Its key responsibility is to purchase health services following efficient, effective and economic use of funds, to protect financial risk of the citizens in case of health service need, and to follow other rights and obligations as specified in the compulsory health insurance legislation [HIL, 2000; HIF, 2008].

Table 1 <here>

2. Health System Financing

The health system in the Republic of Macedonia is funded by social contributions deducted form the gross salary of all employees. The rate of health contributions in 2010 is set at 7.3% of the gross salary. This percentage is rather low compared to other countries with similar organization of the social health system financing [Saltman et al., 2004]. The trend in decrease of the social contributions started in 2007 with changes in the legislation, following newly elected government policy to reduce the costs of the labor and to stimulate new employment. By 2010, health and pensions contributions, together with contributions for the unemployed were subsequently reduced to 7.3%, 18% and 1.2%, respectfully [OG-a, 2008]. Prior to these tax reforms, health contributions rate was 9.2%, in addition adjusted by complex formula to consider the education status of the employees [Donev, 1999, 2009, Misovski, 2004]. The contributions for the pensioners were 21%, while for the unemployed 10.5%. The health contributions with 55-58% of the total HIF budget constitute its largest portion [HIF, 2008]. Additional 21-23% of the HIF budget comes from the Pensions Fund, to cover the health services of the retired citizens. The health and pension contributions constitute the most stabile part in financing of the structure of HIF budget. Until 2008, the State Employment Agency (SEA) contributed between 8-10% in the HIF budget on behalf of the unemployed

people in the country. However, recent changes in the health insurance legislations to insure all unemployed have transferred the funding from SEA, to the central budget. This has put sustainability of health financing in jeopardy due to smaller than expected transfers of the central budget to HIF, combined with the need to purchase higher volume of services [HIF, 2010]. The small portion of the health budget (4%) comes from the copayments and additional sources [HIF, 2009]. Finally, preventive programs are funded by the central budget and administered through the Ministry of health (MoH) and network of Institute and Centers of Public health. The trend of the HIF budget has been increasing over the last decade, from 14 billion MKD in 2002, to over 20 billion MKD in 2008. However, after reaching its pick in 2008, the budget started to decrease mainly due to financial crisis and reduced transfer of funds from the central budget. In total, the budget of the HIF for 2009 was 19.182 billion MKD, what is equivalent to 311.9 million EUR (1 EUR = 61.5 MKD). Apart from public financing of the health system, significant percentage of the total health expenditure comes from formal and informal private expenditures for health. According to the recent household expenditure survey, out of pocket expenditure (OPE) constitutes 25% of the total health expenditure in the R. Macedonia [State Statistical Office, 2009-c]. International organizations such as WHO has estimated that private expenditure for health in R. Macedonia extends beyond 30% of the total health expenditure [WHO, 2009]. However, due to poor availability of data in the country, it is very likely that these figures are underestimated, and OPE may be higher as 40-50% of total health care spending. Larges percentage of OPE is devoted for pharmaceuticals and medical devices, while smaller percentage goes for official copayment for the services delivered in health care facilities including also informal under the table payments [MoH, 2007]. The rise in costs of access to health care has direct implication on inequities in the country [Lazarevik et al., 2009]. Portion of the private spending is devoted also for financing of the health services provided in the private hospitals, due to the unavailability of complementary private health insurance in the country. There are few insurance companies that offer supplementary private health insurance packages [Trajanoski and Lazarevik, 2009]. However the health insurance market in R. Macedonia is rather small and market opportunities for voluntary health insurance are limited due to existence of generous basic benefit package provided by the HIF. There have been many discussions and debates to introduce private health insurance, or to implement competition in the social health insurance in the R. Macedonia [Trajanoski M et al., 2009]. Some of these initiatives have been also announced by the government, but have not been implemented in practice, yet.

2.1. Contracting & payment models

The position of the HIF as single purchaser of health care services, so far has successfully prevented fragmentation of the scarce health care resources and maintained relative financial sustainability of the system. As of 2006, the HIF builds its profile as strategic purchaser of health care services. However in practice, the HIF still acts more as simple payer, rather than strategic purchaser. According to the health care law, the HIF is obliged to sign contracts with all providers licensed by the ministry of health, regardless the status of their ownership. Starting as of 2007, all interested providers are obliged to apply at the HIF for contracts[1]. As of 2010 contracts are agreed and signed in April each calendar year, to deal with the fiscal problems experienced by the providers at the end of the calendar year. The HIF purchases services from public health care providers at all levels of the health care system. These providers include primary and specialist clinics, hospitals, public health institutes, laboratories, pharmacies, dentistry, etc. Primary health services are purchased based on capitation formula and contracts with individual doctors. Specialist services both in the Health Centers[4] (HC) and hospitals are paid as part of the global budget of the health institution. Each HC signs contract with the HIF. Public hospitals also sign contracts with HIF, and their budget is estimated according to the historical averages from the pervious years. The contracts include type and volume of the services to be delivered over the year by each provider. It is important to note that contracting process is not founded on clear negotiations between the HIF and the providers. The providers have limited power and autonomy, to negotiate the budget with the HIF. Thus, contracting is rather based on pressure of the HIF to providers following the principle "take it, or leave it". In 2007 the government initiated the process to change financing system in the hospitals. In 2009 Diagnostic Related Group system was introduced in all inpatient facilities and it is to be expected that in future hospital budget

[1] Prior 2007 the health care providers did not have contracts with the HIF, and budgets were allocated according to historical performance and traditions.
[4] Health Centers are organized as traditional policlinics with primary care and specialists doctors.

would be tailored according to their performances. The HIF signs selective contracts to purchase certain services only with private hospital providers. While all public hospitals have permanent contracts with the HIF, there is only one active contract between the HIF and private cardio surgery hospital. This contract is operative since 2000 mainly due to unavailability of cardio surgery department at the public hospital sector. More recently HIF signed contracts with some private providers for in-vitro fertilization (from 2009).

2.2. Ownership and administration of health care providers

There are three main levels in ownership and provision of the health care services in Macedonia: primary, secondary and tertiary level. Primary level is constituted of two types of ownership: primary health clinics that are integral part of the Health Centers, and owned by the central government, and primary clinics opened and owned by private doctors (Table 2). Public primary health clinics are privatized, but ownership of the facilities remained within the central government. The decentralization in health system took place only in the primary health care sector mainly in the governance of the Health Centers. Councils of the municipalities appoint two representatives in the managing boards of the HC. The secondary level of health care provision is divided by specialists' clinics in government ownership located within the Health Centers, and many privately owned specialist clinics all over the country. In addition to this, there are specialists practicing secondary care within the hospitals.

Table 2. Ownership, financing and government control of the health care providers in R. Macedonia.

Levels of the health care system	Ownership	Financing	Government control
Primary health care clinics	Private	Capitation (free access without copayment)	Small
Health Centers	Public	HIF +copayment	Municipalities, central government
Specialist/consultative care	Public/private	HIF/OOP (copayment, fee for service)	Municipalities, central government
Public hospitals	Public	HIF/copayment/private patients	Strong control, central government
Private hospitals	Private	Out of pocket, contracts	Week regulation, private
Public Health Institutes	Public	Central budget, HIF, laboratory services	Central government, municipalities

The central government is owner, and the ministry of health is responsible for running of the public hospitals. Private investors own the private hospitals, and they are regulated according to the health legislation. There are eight private hospitals in the country two general, and six specialist hospitals covering various specialties such as surgery, ophthalmology, genecology, physiatry, nephrology and dialysis. Most of these private investments were developed without government partnership, nor contract with the HIF. Some form of public private partnership was introduced only in case with the cardio surgery hospital opened in 2000. This hospital is located within the publicly owned facility of the military hospital. The government has credited initial purchasing of the equipment, and obliged to purchase services by signing contract with the HIF. Since then, there have been lots of discussions and proposals for additional private public partnerships in the health sector in R. Macedonia. In 2008 the parliament has adopted Law for public private partnership [OG, 2008-b], but the ministry of health has not developed by-laws and rules of procedure that would make this law operational in practice. Thus continuous ambitions of three subsequent governments to introduce public private partnerships remained only on promising statements of several ministers of health, without further action. In 2010 one foreign company moved one step further, and invested in building and equipping new center for dialysis. The company expects to sign contract with the HIF, but there is no guarantees that this will happen. Private health sector follows the entrepreneurial processes in their work and constantly looks for new opportunities at the health care market. The

government control over private health sector is regulated by existing legislation, but this is limited only on setting standards and control over quality of services and not over governing principles, nor over setting limits in opening and planning new investments. Private hospitals in Macedonia are leaders in purchasing new equipment and in finding innovative ways how to attract patients.

3. History of reforming the health system in the country

Macedonia has inherited from former Yugoslavia health system with widespread and massive health infrastructure, big and overstaffed hospitals, regional network of institutes of health protection responsible for health promotion and prevention activities in their regions and social ownership of the facilities. One of the specifics of the old Yugoslavian model of health system organization that left mark in further development of Macedonian health system was the notion of universal and free access of health services to all citizens regardless of their ability to pay [Saric, 1993]. Since the independence of the country in 1991, we recognized three main periods in the development of the health system reforms: post-socialistic (1991-1998), pro-market (1998-2006), and manifesto driven (2006-on going). These periods are not sharply divided and some aspects overlap within different periods. Shifts in the decision-making power over allocation of resources and political influences were used as orientation to select the phases. Each of these periods carries its own specifics that have left stamp on the current structure of the system (Table 3).

Table 3. Three periods of health system reforms in the R. Macedonia 1991-2010.

First wave Post-socialistic (1991-1998)	Second wave Pro-market (1998-2006)	Third wave Manifesto driven (2006-2010)
• Constitution: right to health protection; • Adoption of the Health Care Law 1991; • Development of the Health insurance system; • Transfer of ownership from social to public; • Reestablishment of professional associations and medical chambers; • Introduction the system of referrals and choice of doctor; • Introduction of co-payment for health services; • Promotion of private practice ownership; • Humanitarian and development assistance programs; • Maintaining of the old system features;	• World Bank-Health Sector Transition Project; • Adoption of Health Insurance Law; • Purchaser/provider split reforms; • Separating Health Insurance Fund from the Ministry of health; • Development of capitation model; • Continuous medical education; • Purchasing equipment; • Strengthening perinatal care; • Decentralization and new territorial organization of the country; • Privatization (dentistry, pharmacies, primary clinics); • Opening of private hospitals; • World Bank- Health Sector Transition Project	• Political platform (manifesto) for the health sector reforms; • Health management; • Two directors in public health institutions; • Reorganization of the University Clinical Center; • Strategic purchasing function of HIF; • Decentralized procurement; • Advanced rights of patients; • Reference and set-pricing of pharmaceuticals; • Development of contracting process; • Health insurance for all; • Purchasing new equipment; • Renovating health facilities; • Development of DRG system; • More private investments in health; • Migration of health personnel to private hospitals; • Constitutional Court;

3.1. Post-socialistic period

In the period after the independence, the R. Macedonia was faced with numerous challenges as new country emerging after the collapse of former Yugoslavia. The country moved towards developing parliamentary democracy and welfare state based on citizens' participation and right to private property. The new Constitution adopted in 1991 included right to health care protection, and obligations for citizens to protect personal, as well as health of the others (article 39). The organization and functioning of the health care system was reestablished under the Health Care Law adopted in 1991. This law redefined all subjects operating in the health care system, medical chambers and professional associations, and for the first time opened the possibility for private medical practice. The law also served as a basis for the development of the social health system by introducing compulsory health insurance and the Health

Insurance Fund (HIF), within and under the auspices of Ministry of health. The health care system was highly centralized is order to provide strong control over utilization of the recourses, and equitable distribution in times of economic crises [Menon, 2006]. The transition from socialism, to market oriented system resulted in collapse for many enterprises. In less than few years' many socially owned enterprises were privatized, and huge proportion (over 200 000) of the population became unemployed [Slaveski, 1997]. The collapse of the socialist economy reflected on significant deterioration in the health care sector. Breakdown of the socialist enterprises and increased unemployment resulted in evasion in payment of the social contributions. In less then four years between 1991 and 1995 the health revenues decreased by 40% what had direct negative implications on the health status of the population, satisfaction of the health personnel and patients, and on maintenance the old infrastructure of the health care system [Ivanovska, 1999]. All health care providers due to lack of funds, motivation and poor efficiency started inquiring financial debts, that by 1997 reached 40 million US $. In the post-socialistic phase HIF was integral part of the Ministry of health and all decisions for allocation of resources, financing of the health care providers, and planning of the investments come from the Cabinet of different ministers of health. In order to increase the funding of the system, the government in 1993 for the first time introduced co-payment for health care services, with safety nets for children up to 14 years, and elderly above 65. Citizens had the possibility to select personal doctor and new referral system was introduced to access the hospital services. This period is also marked with huge humanitarian assistance for the health care sector form international donor agencies and friendly countries in pharmaceuticals, medical devices and equipment [Tofovski, personal communication].

Main features of the post-socialistic phase in the health sector reforms in R. Macedonia were oriented primarily to prevent collapse of the health care system, and also to maintain some characteristics of the old socialistic system such as strong prevention, free access, and solidarity in financing. In this period the government singed its first Loan Agreement with the World Bank for health sector reforms [World Bank, 1996], but first effects to the health care system were felt in the second pro-market period of the reforms.

3.2. Pro-market period

The pro-market period in the health sector reforms coincides with the first official shift in the political power, from left-oriented former socialists, to center-right conservatives [Szajkowski, 1999]. This period is marked with very intensive health sector reforms, mainly initiated and guided by the World Bank's Health Sector Transition Project (HSTP) [Staff Appraisal Report, 1996]. The influence and the pressure of the World Bank was key engine in the design of the structural and financial reforms in the health care sector. The most important feature of the reforms within this period was formal separation of the Health Insurance Fund from the auspices and direct control of the Ministry of health. In 2000, the new Health Insurance Law (HIL) was adopted, and the HIF was established as autonomous health insurance agency governed by managing board of 13 representatives, including patients (6), employers (2), health providers delegated by the medical chambers (3), and by one representative of the ministries of finance and health [HIL, 2000]. The establishment of the HIF as an independent agency was based on the assumption to improve the transparency and efficiency in financing and delivery of the health care services. Also, it was important to link the purchasing of health care services according to defined volume and scope of services, and to replace previously politically driven internal budget allocation. These reforms represented implementation in practice of the global movement let by the World Bank to create markets for health by separation between the purchaser (HIF) and provision functions in health care services [McPake, 2002].

The next important developments were preparations for the privatization of the primary health care clinics, and implementation of the capitation based model for payment of the physicians. These preparations went in parallel with the development of Centers for continuous medical education (CME). Four training centers were opened and over 40% of the primary physicians in the country completed the program, received certificates and individual medical equipment [WB, 2003]. A population-based survey was carried out to assess the workload of various doctors (general practice, pediatrics, genecology, school medicine) and to determine the likelihood of patients by sex and age to visit doctors clinics [MoH, 2001]. This survey and supplemental work undertaken within the auspices of the HSTP served as basis to create the risk adjusted capitation formula. Development of the capitation model was basic prerequisite to initiate the privatization of the clinics within the Health Center that took place after changes in the legislation. Second wave of the health reforms was marked with active, sometimes painstaking, but also enthusiastic participation of representatives from the MoH, HIF, medical chamber and professional association. It was clear that successful implementation of the reforms depended primarily on the government willingness, but more

importantly on the local ownership of the reforms. Following the internal armed conflict in 2001 [Hislope, 2003] health care reforms were slowed down to resume in the following years in parallel with the process of consolidation and democratization of the country [Daskalovski, 2004]. Decentralization of the country emerged as one of the tenets of the Ohrid framework agreement. New law on local self-government was passed and basic health care was decentralized to municipalities, but health insurance remained in central government control [Menon, 2006]. In 2004 the Ministry of health has introduced changes in the Health Care Law (HCL) that for the first time opened the possibility for privatization of segments of the public health care system including dentistry clinics and pharmacies. In 2005 additional amendments of the law were adopted to initiate the privatization of the primary health doctors [HCL, 2005]. The privatization process followed long administrative procedures of preparation and development of plans and bylaws by the Ministry of health. According to the legislative changes, each Health Center was obliged to prepare special program for privatization to be finally approved by the minister of health. By October 2007 in less than three years since the adoption of the first changes in the laws, in total 3521 health workers (doctors, dentists, pharmacist and nurses) were privatized (Table 5). Former salary based payment of doctors, was replaced with capitation, and income was related to the number of citizens enrolled to doctor's lists. The doctors have established private practices in the rented premises of the Health Center [Zdravstven dom]. The privatized doctors got the same clinics where they used to work prior privatization. The primary health care privatization did not result in transfer of the ownership of the clinics, but only in privatization of the medical practice. Each privatized doctor signed contract with the HIF, and receives payment on quarterly basis. The results of these reforms have not been analyzed yet, but Ministry of health reports that patients are more pleased with the services, and most of the doctors with their income compared to the previous salary based system [MoH, 2007]. Now, the medical nurses are more disappointed since their income is directly related and depends to that of the doctors[5].

Table 5. Privatization of the primary health care in R. Macedonia 2004-2007.

Primary sector	Rented premises	No. of employees	
		Doctors	Nurses/technicians
Primary health care	888	944	694
Dentistry	431	616	292
Dentistry laboratories	72		210
Pharmacies	21 sold	64 Pharmacists	414
	51 rented		91
	State pharmacy sold		196
Total	**1463**	**3521**	

*Source Ministry of health 2008

While the whole process of privatization in the primary care was completed without transfer of the ownership of the health facilities, the biggest failure was the privatization of state owned company consisted of chain of pharmacies "City Pharmacies" (Gradski Apteki) in 2006. The company was sold on the market with transfer in the ownership to several private owners who formed new company. In 2009, few years after the privatization the company went into liquidation, following scandal in the media, and street protests of the employees who lost their jobs.

The pro-market wave of the reforms was felt also in the private health care sector. This period marked development and opening of big private hospitals for cardio surgery, genecology and obstetrics, and one general hospital[6]. Private hospitals sector started its development in parallel to the state run hospital system.

[5] The privatization of the primary health clinics was based on the standards developed by the ministry of health. These standards included each doctor to be privatized in package with one nurse. This policy has protected the jobs of the medical nurses, but is also made their income depended on the doctors willingness and financial abilities to pay their salaries.

[6] In 1996 the first private hospital for plastic surgery "Dr. Miskovski" was opened with 5 hospital beds. In 2000 cardio surgery hospital "Philip the second" started to work, in 2002 genecology hospital "Sistina medical", and in 2005 general hospital "Re-medica".

HIF signed contracts to cover the services provided only in the cardio surgery hospital, but not in the other private hospitals. Thus, unavailability of insurance let the patients who choose private hospitals sector to pay out of pocket for the provided services.

3.3. Manifesto driven reforms

The third wave of the health sector reforms in R. Macedonia started in the closure of 2006 after the parliamentary elections and changes in the government. Prior this phase most of the health sector reforms were initiated and driven by the international organizations and main engines of reforms were two projects financed by the World Bank loans[7]. Political parties did not have specific programs and manifestos, and even if they had the government did not follow the implementations of the pre-election promises. The elections in 2006 marked the turning point in promotion of the political platforms for elections. Promotion of new health system reforms was an integral part of the political platform of the elected party [VMRO-DPMNE, 2006]. Key features of this manifest were aimed to decrease OPE for health, to improve efficiency and transparency at the level of health care providers, to advance patients rights in all medical interventions, and to strengthen the position of the HIF as strategic purchaser of health care services. Moreover, the government promised to decrease the price of the pharmaceuticals, and to introduce referent-pricing system by providing more choice to the patients. As first step in realizing its objectives, in the fall of 2006 the Ministry of health developed Health Management and Leadership Training Program (HMLTP). The HMLTP was developed in close collaboration between the Ministry of health, Medical Faculty in Skopje and the World Bank. The program consisted of ten teaching modules delivered over the period of six weeks, with participation of world known management, economics and health policy experts, as well as local experts and professors from the Medical Faculty in Skopje. The announcement of the program provoked huge interest for participation, both among the medical doctors and economists. The first call published in the local media attracted more than 700 applications for initially limited place to 60 participants. The announcement of the program followed the initiative to change the health legislation by adopting new amendments to the HCL. The changes introduced new concept in the governance of the public health providers by replacing the previous system of traditional appointment of medical doctors as directors, with system of two directors with shared level of responsibility, but different background, one medical doctor, and other economist [HCL, 2007]. In the following years more than 700 doctors and economists participated at this program and were provided with the possibility to learn new concepts in health economics, management, procurement, budgeting and contracting, and policy making [MoH, 2007]. The changes in the health legislation enabled economists for the first time in the R. Macedonia to hold the position of directors. These posts were previously exclusively reserved for the medical doctors. This period of the reforms was also characterized with strengthening of the position of the HIF as strategic purchaser of health care services. For the first time the process of contracting was implemented in practice and health care providers at all levels of the system were obliged to sign contracts with the HIF. The changes in the legislation of pharmaceuticals introduced new system of set-prices[8] determined by the Bureau of Pharmaceuticals at the Ministry of health. New system has immediate repercussions in decrease of the prices of pharmaceuticals. Another novelty was the implementation of the reference pricing system, but this has created opposite effect and increased the OPE for pharmaceuticals for the patients [Lazarevik V, 2010]. In order to deal with the corruption in the health care system concentrated at the central level, the government decentralized the procurement from previously centrally organized by the HIF, to the level of individual providers. The health care providers became responsible for financial management, but in practice they did not have real autonomy in their work. The budgets of the individual providers were still decided upon the historical allocations, and small differences were mainly driven by political influences as in the previous phases of the reforms. The decentralization in procurement went further towards decentralization of the University Clinical Center in 31 independent clinics (legal entities) and one service provision agency [ref]. The next important reforms in the manifesto phase was the work in progress to change the payment of the hospitals, form previously input, towards output based system. In 2007 under the leadership of the Ministry of health, the process to change the payment system for hospitals was introduced based on diagnostically related groups (DRG). Australian DRG model was selected as most appropriate and

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[7] In 1996 the Government of RM signed first Loan agreement (LA) with the WB for Health Sector Transition Project of abount 16 million US$. After its completion, in 2004 new LA was singed for Health Sector Management Project of about 10 million US$. More details on these projects is available at the following web page: www.moh-hsmp.gov.mk.

[8] Under the new law, Bureau of pharmaceuticals at the MoH determines the prices of all drugs. Thus, the price of a drug from same producer is identical regardless of the pharmacy where it would be purchased.

the Ministry of health purchased the DRG license from the Government of Australia. The period for preparations lasted for three years and as of 2009 all inpatient services in selected 56 health care providers started to code hospitals cases according to the adapted version of the Macedonian DRG system [HIF, 2009]. All health care providers that have inpatient services and contracts with the HIF were obliged to code and report back each episode of hospital treatment. The providers electronically send collected information to the web application (grouper) available at the web page of the HIF[9]. However, the financing is not yet linked to DRG performances of the hospitals. This process is expected to start in the following years by balancing providers budget for certain percentage according to results obtained by DRG's. At present the type and volume of services provided by individual providers as coded by DRG's serves as approximation of hospitals outputs, what is compared to previous historical budgets. First year data showed big differences and inequities in historical tailoring of the hospitals budgets[10]. The whole manifesto phase of the health system reforms is influenced by government promises to improve the quality in the delivery of services in the public hospitals by purchasing medical equipment and renovation of the facilities. In the meantime in 2008, early elections were called, the running government party won again, and increased its majority in the parliament. This was new opportunity to update the health manifesto and to add new promises. The update program divided health reforms in four main components: aimed to protect the values of solidarity, equity and participation of the citizens in the decision making process; to advanced and preserve the social health insurance system, to strengthen public health services, and to continue with the investments in the health care sector. This period in the health system reforms will be remembered with promising start, big enthusiasm, number of activities and political promises aimed to improve the health system delivery [MoH, 2006].

4. Findings and Discussion

The three analyzed periods in the health system reforms in the R. Macedonia provide mixed picture of few successes and many failures. The key successes over the post-socialistic period were the establishment of the social health insurance system, and prevention of further fragmentation and collapse of the health sector due to rising unemployment in the country after collapse of the socialist enterprises. In addition, this period promoted possibility for private ownership of medical practices. The second wave of the reforms, or pro-market period promoted privatization of the primary health care, adoption of the Health Insurance Law, purchaser-provider division in organization of the health care system, replacing previously centralized command and control system directed by the Ministry of health. The first big private hospitals were opened in parallel to the state run hospital system, but they did not become integral part of the health insurance system. Patients were obliged to pay for services in private hospitals out of pocket. Finally, the third or manifesto phase created huge enthusiasm and social atmosphere for change in the public health sector. Many amendments to the health legislations were adopted[11], and new laws and bylaws drafted. This period is also marked with official introduction of the health management within public health facilities, including the concept of new governance in the public health institutions represented by two directors including one economist. Overall prices of the pharmaceuticals were decreased and patient's rights advanced. On the financing side, health contributions were decreased and HIF started contracting with all public health providers. DRG system was introduced as a way for payment of hospitals for inpatients services. In 2010 first contracts with suppliers of medical equipment were signed.

However, besides these achievements the reforms did not solve all problems in the health sector. Old problems remained and many new emerged. Over the years little attention was paid to proper maintenance and further development of massive health infrastructure. Lack of investment resulted in deterioration of the health facilities, poor quality in provision of the health services, and lack of modern technology and equipment. The reforms in the primary health system did not continue with the privatization of the specialists' doctors who belong to the secondary level of health care system and are placed in the Health Centers and outnumbered administrative staff. The delay and hesitation of the government to continue with the reforms resulted in huge inefficiencies and financial loses of 2 billion MKD OR 15 million EUR per

[9] www.fzo.org.mk DRG grouper.

[10] First DRG results show that there are few hospitals that provide more services and receive smaller budgets, compared to more hospitals with much smaller production of services and higher budget.

[11] In the period between 2006-2008 more than 40 legal documents were adopted including changes in the legislation, drafting of bylaws within the Ministry of health (personal communication, Bacanovic).

year for the health sector [Jelnikar, personal communication]. In 2008 the government has announced transformation of the public hospitals into autonomous corporations by drafting first versions of the Law for autonomy of health providers [MoH, 2007]. However, political interest not to give away the power has prevented adoption of the final version of this law. Such uncertainties in the implementation of the reforms over the transition forced huge "migration" of senior health personnel, to move in the private sector. Thus, private health sector constantly experiences progress in building state of the art facilities, purchasing latest equipment and technology, and marketing of the services it provides. While in 2008 the HIF budget was at its historical highest levels, as of 2009 the health system again went under serious financial constrains. The local medias are overblown with negative coverage of the conditions in the public health care system. The causes of these problems are partly due to the impact of the global financial crisis, but also to the unsustainable government policies to decrease the rate of health contributions; to provide coverage to all unemployed, and to introduce new services in the basic benefit package. The policy to insure all citizens was not supported with extra funding from the central budget. The budget of the HIF started to shrink, what has resulted in negative chain reaction by shifting the burden for financing of health services from the HIF, over providers, towards the patients. The out of pocket expenditure increased for all citizens even for the insured and new hospital debts were accumulated. In early 2010 many hospitals started to inquire new debts, followed by many scandals in the local medias on poor quality in provision of the health care [Boskovska; Jovanovska, 2010]. These developments were also followed by information in the media of poorer provision and lowered quality of health services in many general hospitals in the country[12]. In 2006, in order to improve the situation in the public hospital system the government has initiate process to purchase new equipment and to renovate the old facilities. It took almost four year to complete the tendering procedure and to sign contracts with suppliers [SEEUROPE, 2010]. In addition, despite continuous problems in financing the government was reluctant to deal with the inefficiencies in the system. The privatization within the Health Centers was not completed and specialist doctors and numerous administrative staff remained to be paid by fixed salaries[13]. Health management was officially introduced as part of the government strategy do improve the performances of the public health providers, but direct interferences of the political parties blocked all mechanisms for successful reforms. The politicization of the health system in Macedonia became symbol of the transition and key decision-making mechanism in financing, planning of the investments, employment, and most importantly appointment and dismissing of directors in the health institutions. These activities in the health system are performed following previous agreements between coalition partners (political parties) in the government. The coalition partners negotiate and decide which party will be responsible to propose suitable candidates for directors in selected hospitals. Once the political agreement is reached, the proposals for directors are submitted to the minister of health who than formally appoints the directors. Similar political negotiation and agreements takes place for the recruitment of new personnel. Part of this politicization in the administration is due to the requirements of the Ohrid Framework agreement to increase the employment of the Albanian minority population in state institutions [Brunnbauer; Daskalovski, 2002]. However, this politicization serves more in benefit of the political parties to maintain their positions in local communities, while it has direct negative consequences to the health system in stimulating inefficiency, nepotism, poor management that leads to systematic degradation of the public hospitals [Lazarevik V, 2010 forthcoming]. The reform of the University Clinical Center in reality turned into fragmentation of the biggest tertiary health institution, to many smaller subunits and individual interests. The creation of each clinic as separate legal entity (hospital), with managing boards, and two directors has significantly increased the operative expenses, and increased number of new administrative staff. This reform has created many political problems for the government, but also problems in functioning of the clinics for the management, personnel, and patients. Fear of losing patients, and more importantly, budget to private hospitals sector has forced the government to be more protective towards the state run system. Despite new private investments in the health sector, the HIF did not sign contracts with the private hospitals. Such policy in the R. Macedonia has created two-tire hospital system: the public hospital system covered by the health insurance, limited budgets, poor infrastructure and equipment and lowered quality in provision of the health services, and on the other hand private "state of the art" hospital system, where the citizens privately finance the health services. In the meantime, the

[12] In less than three months in 2010, three previously health woman died after deliveries in three different general hospitals in R. Macedonia.

[13] The last phase of the privatization in the Health Centers, following the privatization of the primary health physicians should have included around 1500 administrative workers and 1183 health workers (437 specialist doctors, 720 medical nurses, and other 26 health workers). However, this part of the privatization was not initiated and the reforms stopped.

Constitutional Court in January 2010 has open the possibility for reimbursement of the costs in provision of health services to all citizens regardless of the ownership or contracts of the providers with the HIF [Constitutional Court, 2010]. According to this decision anyone who wishes to obtain services in the private hospitals, is eligible for reimbursement in portion of the total costs, according to the price list of services authorized by the HIF [HIF, 2010]. These developments have encouraged hundreds of high quality trained personnel to leave the public sector, and to join the private hospital sector[14]. Moreover, this decision opened big public debate and has created intense dispute between the government (prime minister) and the Constitutional Court, due to the government concerns of possible huge financial implication to the HIF budget [MIA, 2010]. On the other hand, the public welcomed this decision, although it would still require for the patients to pay the difference in the costs which on average are up to three times higher than the cost of same services provided in the public hospitals. The private health sector became preferable alternative for health service delivery, for those with the ability to pay. The financial implications and consequences of the CC decision to the health insurance system in this liberalization in provision and reimbursement of the health services need to be analyzed in the following period. However initial expectations are that it would certainly cut portion of the HIF budget, to private hospitals. In March 2010, the government announced new set of restrictive measures aimed to deal with the inefficiencies in the health system. Most important aspects of the new proposal includes reduction in the monetary value of the capitation point, adjustment of doctors salaries, decrease in number of hospital directors and managing boards, merging of hospitals, new opportunities for public private partnership [Balaban, 2010]

Conclusions

Our findings indicate that health system reforms in R. Macedonia were implemented all over the transition period, but they present rather fragmented picture. The implementation of the reforms was influenced by many external and internal factors. On the external side the most influential factor were policy pressures and project activities financed from the World Bank loans. These projects initiate certain changes in the health system, but the processes were confronted with many internal political changes, various interest groups struggles and lack in continuity. The most important internal factor for pursuing or obstructing the reforms was the interest of the political parties. Over politicization of the system and populist political motives to gain more votes result in almost collapse of the public hospitals sector. The further success in the health system reforms would very much depend on the decreased influences of politics over the health care institutions. Promising step in such direction may be adoption of the new legislation for autonomy of selected health care providers that would transform selected hospitals into corporate entities. Such legislation would open the possibility for rationalization of hospitals and initiation of hospital mergers. Finally, ambitious government proposals to extend the basic benefit package and to insure all unemployed must be followed with transfer of additional funds from the central budget. Otherwise, the financial sustainability of the social health system will be put into jeopardy, what would compromise the concept of solidarity.

[14] In March 2010 new private general hospital Sistina medical announced its opening and employed over 300 high-qualified doctors and medical nurses. Great majority of these health personnel resigned from the state hospitals and the University Clinics in Skopje. Almost all of them went in the private sector attracted by higher salaries [Personal communication, Ajanovski 2010].

References

Balaban, Ljubica. 2010. The health care system with frozen salaries. Dnevnik, March 25.

Boskovska, Natasa. 2010. “Hospitals are drawing in debts”. *Nova Makedonija*, January 12.

Brunnbauer, Ulf. The implementation of the Ohrid agreement: Ethnic Macedonian Resentments. Journal of Ethnopolitics and Minority Issues in Europe 2002. 3:1-24. http://www.ecmi.de/jemie/download/Focus1-2002Brunnbauer.pdf (accessed March 13, 2010).

Constitutional Court of the Republic of Macedonia. 2010. Decision No.185/2009-0-1, January 27.

Daskalovski, Zhidas. 2002. Language and Identity: The Ohrid Framework Agreement and liberal notion of language and identity. Journal of ethnopolitics and minority issues in Europe, 3:1-32. http://www.ecmi.de/jemie/download/Focus1-2002Daskalovski.pdf (accessed March 31, 2010).

Daskalovski, Zhidas. Democratic Consolidation and the ‘Stateness’ Problem: The Case of Macedonia. The Global Review of Ethnopolitics Vol. 3, no. 2, January 2004, 52-66. http://www.ethnopolitics.org/ethnopolitics/archive/volume_III/issue_2/daskalovski.pdf (accessed March 11, 2010).

Donev, Doncho. 1999. Health Insurance System in the Republic of Macedonia. CMJ 40(2):175-180. http://www.cmj.hr/1999/40/2/10234059.htm (accessed March 31, 2010).

Donev, Doncho. 2009. Health Insurance System and the Provider Reform Payment in the Republic of Macedonia. Italian Journal of Public Health, 6(1).

Gjorgjev, Dragan et al. 2006. The former Yugoslav Republic of Macedonia: Health system review. *Health Systems in Transition.* Copenhagen: World Health Organization.

HCL. 2005. Health Care Law. Official Gazette of the Republic of Macedonia 38/91, 46/93, 55/95, 10/04, 84/05.

HCL. 2005. Health Care Law. Official Gazette of the Republic of Macedonia 38/91, 46/93, 55/95, 10/04, 84/05.

HFA, 2009. European Health for all Database [online database]. Copenhagen, WHO Regional Office for Europe, 2009 (http://www.euro.who.int/hfadb, accessed 31 March 2010).

HIF 2008. Annual Report of the Health Insurance Fund 2007. [In Macedonian] http://www.fzo.org.mk/default.asp?ItemID=C349CD3739E3124B8D3C4C71C64F2121 (accessed March 15, 2010).

HIF. 2007. Annual Report of the Health Insurance Fund 2007. http://www.fzo.org.mk/WBStorage/Files/gIzvestaj07.pdf (accessed, March 17, 2010).

HIF. 2009. Annual Report of the Health Insurance Fund 2008. [In Macedonian] http://www.fzo.org.mk/WBStorage/Files/gIzvestaj08.pdf (accessed March 17, 2010).

HIF. 2009. Health Insurance Fund. DRG results and reports. [In Macedonian] http://www.fzo.org.mk/default.asp?ItemID=321A8D9BF62E77479E0158EA9CBEFDEA. (accessed March 19, 2010).

HIF. 2009. Monthly reports for the disbursement of the Health insurance fund budget, September 2009. [In Macedonian] http://www.fzo.org.mk/WBStorage/Files/Mesecen%20Izvestaj_Noemvri2009.pdf (accessed March 15, 2010).

HIF. 2010. Health Insurance Fund. Reference pricing of services with co-payment.[In Macedonian] http://www.fzo.org.mk.

HIL. 2000. Health Insurance Law 2000. Official Gazette of the Republic of Macedonia 25/00.

HIL. 2003. Health Insurance Law. Official Gazette of the Republic of Macedonia, 25/2000, 34/2000, 96/2000, 50/2001, 11/2002, 31/2003.

Hislope, Robert. 2003. Between a bad peace and a good war insights and lessons from the almost-war in Macedonia. Ethnic and Racial Studies 26; 1: 129-151.

Institute for public health. 2009. Health map of the Republic of Macedonia 2007. Skopje: Institute for public health.

Ivanovska, Ljubica, Ilir Ljuma. 1999. Health sector reform in the Republic of Macedonia. Croat Med J 40:181-9. http://www.cmj.hr/1999/40/2/10234060.htm (accessed March 31, 2010).

Jovanovska, Jasmina. 2010. "The hospitals drown in debts again", *Utrinski Vesnik*, March 24.

Lazarevik, Vladimir, Marija Risteska, and Valentina Simonovska. 2009. The impact of social assistance programs on reducing inequities in health care among vulnerable groups in the Republic of Macedonia. Macedonian Journal of Medical Sciences. Mar;2(1):73-78. http://www.mjms.ukim.edu.mk/Online/MJMS_2009_2_1/MJMS.1857-5773.2009-0033.pdf (accessed February 13, 2010).

Lazarevik, Vladimir. 2010. Policy interventions to tackle inequities in health: patient rights and reference pricing of pharmaceuticals. Macedonian Journal of Medical Sciences no. 3. (March 15, 2010) http://www.mjms.ukim.edu.mk/Online/MJMS_2010_3_1/MJMS.1857-5773.2010-0079.pdf (accessed March 18, 2010).

Lazarevik, Vladimir. 2010. The collapse of the state hospitals system and perspectives for its transformation. Makedonski medicinski pregled (fortcoming).

McPake, Barrbara. 2002. The globalization of health sector reform policies: is lessons drawing part of the process? In *Health Policy in a Globalizing World*. Edited by Kelly Lee, Kent Buse and Suzanne Fustukian: Cambridge: Cambridge University Press.

Menon, Sonia. 2006. Decentralization and health care in Republic of Macedonia. International Journal of Health Planning and Management 21:3-21.

MIA. 2010. Macedonian Informative Agency. What were Constitutional Court's motives to pass two contradictory rulings on HIF in six months. http://www.mia.com.mk/default.aspx?vId=71716063&lId=2 (accessed March 15, 2010).

Misovski, Jordan 2001. Comments on the Law on health insurance with bylaws. Skopje.

MoH. 2001. Ministry of Health, Health Sector Transition Project. Strategy for financing and future organization of primary health care.

MoH. 2006. Ministry of Health, Health Sector Transition Project. Strategic Health Summit 2006. http://www.moh-hsmp.gov.mk/index.php?id=67 (accessed March 12, 2010).

MoH. 2007-a. Ministry of Health, Health Sector Management Project. Formulation of a co-payment policy under Social Health Insurance, final report. http://www.moh-hsmp.gov.mk/uploads/media/Co-Payment_Policy_-_Final_Report_by_Karl_Karol.pdf (Accessed February 23, 2010).

MoH. 2007-b. Ministry of Health, Health Sector Management Project. Consultancy on Health Care Providers Legislation December, 2007. http://www.moh-hsmp.gov.mk/uploads/media/Consultancy_on_health_care_providers_legislation.pdf (accessed March 8, 2010).

MoH. 2007-c. Ministry of Health, Health Sector Transition Project. Health Management and Leadership Training Manual. [In Macedonian]. http://www.moh-hsmp.gov.mk/fileadmin/user_upload/Priracnik%20za%20menagment%20i%20liderstvo.PDF (accessed February 7, 2010).

MoH. 2008. Ministry of health. Information for the implementation of the Health Care Law in transformation of the primary health care.

OG. 2008-a. Official Gazette of the R. Macedonia. No. 142. Law for contributions of mandatory social insurance.

OG. 2008-b. Official Gazette of the R. Macedonia. No. 7, January 15. Law for concessions and other forms of public private partnerships.

Saltman, Richard .B., and Reinhard Busse, and Josep Figueras, J. (eds). 2004. *Social Health Insurance Systems in Western Europe*. Berkshire/New York: Open University Press/McGraw-Hill Education.

Saric M, Rodwin VG. 1993. The once and future health system in the former Yugoslavia: myths and realities. *J Public Health Policy* 14:220-237.

SEEurope.NET. 2010. Agreements on Procurement of Modern Medical Equipment in Public Health Signed, Vreme, February 23. http://www.seeurope.net/?q=node/19159 (accessed March 18, 2010).

Slaveski, Trajko. 1997. Privatization in the Republic of Macedonia. Eastern European Economics 1997;35:31-51.

State Statistical Office of the Republic of Macedonia. 2010. *Household survey* 2009.

State Statistical office. 2009-a. Statistical yearbook of the Republic of Macedonia 2009. Skopje: State statistical office.

State Statistical office. 2009-b. Macedonia in numbers. Skopje: State Statistical office.

Statistical Yearbook of the Republic of Macedonia. 2006.

Szajkowski, Bogdan. 1999. Elections and electoral politics in Macedonia. Transitions. Institut de Sociologie, ULB, Brussel, XL 1-2, p. 55-82. http://dev.ulb.ac.be/cevipol/dossiers_fichiers/szajkowski-1999-1-2.pdf, (accessed March 22, 2010).

The World Bank 2010. Data and statistics for Macedonia. http://www.worldbank.org.mk/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/MACEDONIAEXTN/0,,contentMDK:20179336~menuPK:304498~pagePK:1497618~piPK:217854~theSitePK:304473,00.html (accessed March 28, 2010).

The World Bank. 1996. Staff Appraisal Report. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/1996/05/24/000009265_3961214123024/Rendered/PDF/multi0page.pdf. (accessed March 03, 2010).

The World Bank. 2003. *Implementation Completion Report.* http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2003/06/30/000112742_20030630111113/Rendered/PDF/25735.pdf (accessed January 12, 2010).

The World Bank. 2005. Macedonia Poverty Assessment for 2002-2003. http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2005/12/21/000090341_20051221144229/Rendered/PDF/343240MK.pdf (accessed March 31, 2010).

Trajanoski, Metodija, Vladimir Lazarevik, and Vlado Spirkoski. 2008. The basic benefit package and additional opportunities for developing of health insurance in Macedonia. Journal Health Care Management 5:117-122.

Trajanoski, Metodija, Vladimir Lazarevik. Voluntary health insurance: possibility of using additional health services out of the range of compulsory health insurance. Journal Health Care Management 2008;6:08-11.

VMRO-DPMNE. *Rebirth in 100 steps*. Political program for the parliamentary elections in 2006. www.vmro-dpmne.org.mk.

WHO. 2009. *World Health Statistics 2009*. Health expenditure. http://www.who.int/whosis/whostat/EN_WHS09_Table7.pdf (accessed February 7, 2010)

WHOSIS Accessed, March 30, 2010: http://apps.who.int/whosis/data/Search.jsp).

World Health Organization. 2010-a. European Health for All database (HFA-DB). Copenhagen:WHO Regional Office for Europe.

Table 1. R. Macedonia. Categories of data at selected points of time (1990-2008)

Demographic characteristics	**1990**	**1995**	**2000**	**2005**	**2008**
Geographic area	25713	25713	25713	25713	25713
Population	2028000	1965984	2031541	2036855	2046898
Popualtion density (pop/km2)	78.87	76.46	79.01	79.21	79.61
Urban (percent)		59.76	59.44	59.66	59.71
Life expectancy at birth, male	69,88 (1991)	70.04	71.18	71.44	71.95
Life expectancy at birth, female	74,53 (1991)	74.48	75.74	75.88	76.14
IMR per 1000 livebirths	31.6	22.67	11.81	12.8	9.7
Economic data	1990	1995	2000	2005	2008
Total GDP (in million US $) [source: SSO]		2377	3588	4534	6100
Total GDP (in million US $) [source: MoF, WB]	4471	4449	3586	5814	9521
GDP per capita (in US $) [source: SSO]		1209	1771	2226	2980
GDP per capita (in US $) [source: MoF, WB]	2205	2263	1765	2854	4651
Inflation rate [source: SSO]	1690,7 (1992)	15.9	10.6	0.5	8.3
Inflation rate (GDP deflator) [source: WB]	93,7 (1991)	17.1	8.2	3.8	7.2
GDP growth rate (real)	-6	-1	5	-5	5
Health care expenditures	1990	1995	2000	2005	2008
Public outlays as percentage of total intergovernmental budgets	n/a	n/a	15.8	15.8	n/a
Private out-of-pocket outlays (estimates)	n/a	n/a	29.1	29.6	n/a
Total health expenditures (PPP)	n/a	n/a	462	569	n/a
Total health expenditures as percentage of GDP (WHO estimates)		7.6	7.6	7.8	n/a
Health resources	1990	1995	2000	2005	2007
Physicians (public)	4396	4516	4455	4392	3540
Physicians (private)	n/a	n/a	n/a	n/a	1512
Physicians (total)	4396	4516	4455	4392	5052
Physicians/100000 popualtion (total)	216.8	229.7	219.3	215.6	246.8
Other health professionals (public)	12838	13071	12838	11511	9724
Other health professionals (private)	n/a	n/a	n/a	n/a	4358
Other health professionals (total)	12838	13071	12838	11511	14082
Other health professionals/100000 pop	633.0	664.9	631.9	565.1	688.0
Hospital beds (public)	11119	10645	10248	9569	9228
Hospital beds (private)	n/a	n/a	n/a	n/a	98
Hospital beds (total)	11119	10645	10248	9569	9326
Hospital beds/100000 pop	548.3	541.5	504.4	469.8	455.6