



**REPUBLIC OF MACEDONIA
MINISTRY OF HEALTH**

**HEALTH STRATEGY OF
THE REPUBLIC OF MACEDONIA,
2020
SAFE, EFFICIENT AND JUST
HEALTH CARE SYSTEM**

SKOPJE, FEBRUARY 2007

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Abbreviations

Strategy	Health strategy of the Republic of Macedonia 2020
ATI	Acute toxic infection = acute food poisoning
EU	European Union
DMFT	Decayed, missing, filled teeth
DOTS	Directly observed treatment short course (for tuberculosis)
DRG	Diagnosis related groups
GDP	Gross Domestic Product
HIFM	Health Insurance Fund of Macedonia
HFA	Health For All
HFA-DB	Health For All data base
ICD-9 (-10)	International Classification of Diseases, 9th (10th) revision
ICT	Information and Communication Technology
IHIS	Integrated Health Information System
MDG	Millennium Development Goal
PHC	Primary health care
SDR	Standardised death rate
RIHP	Republic Institute for Health Protection
UNDP	United Nations Development Programme
WHO	World Health Organisation

Summary

The Health Strategy of the Republic of Macedonia 2020 sets out the vision for improvement of the health and of the health care system, which will be responsive to the needs of the population. The achievement of the goals, objectives and guidelines included in this strategy will be ensured by way of adopting an Action plan and by the implementation thereof.

The analysis of the health status of the population in the Republic of Macedonia and in the world shows that priority health problems are and will continue to be the chronic non-infectious diseases, the new infectious diseases and the emergency cases. Maintenance and improvement of the health will be the main instrument for improving the health status of the population, especially of the vulnerable groups.

The effectiveness and efficiency of the overall health care delivery system will be increased. Primary health care oriented towards the individual, the family and the community, with emphasis on the preventive health care and on satisfying the majority of the health needs of the population, will continue to be the basis of the health care system in the Republic of Macedonia.

The hospital health care will be provided in a defined network of general and specialised hospitals. They will satisfy the needs of the local population in need of secondary health care, thus reducing the pressure on the tertiary health care.

The specialized preventive health care of the population (public health) will be provided by way of strengthening and modernizing the Institutes for Health Protection and the occupational medicine services.

Human resources are the core of the health care system. Staff expertise and competence will be improved through modernization of the under-graduation and post-graduation studies, implementation of different forms of continued education, and professional development.

The assurance of the quality of health care will be a priority in the period to come, and this will be achieved through the implementation of accreditation and re-accreditation of health care institutions, health care workers, procedures and guidelines for treatment, implementation of internal and external assessment, and greater participation and influence of the consumers of health services.

The financing of the health care system will continue to be based on health insurance and on the mutuality, solidarity and equity principles, while providing for its sustainability. The basic benefits package under the health insurance will be defined according to the needs of the population and the available financial resources. The Health Insurance Fund will be modernized in order for it to provide for the implementation of health insurance and of the basic benefits package.

The Ministry of Health, in cooperation with other governmental and non-governmental organizations, professional associations and the public, will manage the modernisation of the health care system of the Republic of Macedonia.

INTRODUCTION

The strategy presents the vision for improvement of the health status and health care of the population in the Republic of Macedonia until 2020. It identifies priority areas and aims to ensure that those health services that are being delivered will provide the highest possible benefits for the citizens.

A *health system* according to the World Health Organisation includes all the actors and activities the primary purpose of which is to promote, improve or maintain the health of the citizens.

Organised health services, i.e. the *health care system*, are only one of the many factors for maintaining good health, recovering from ill health, or making the life with chronic illness easier. Health is influenced by many external factors such as environmental, social and economic factors, and by factors related to lifestyles and to other sectors in the society.

This strategy focuses on the issues related to the health care system that are under the jurisdiction of the Ministry of Health, emphasizing the need for intersectoral cooperation in various fields such as environmental health, food safety, occupational health and safety, protection against smoking, fight against alcoholism and addiction diseases, as well as the responsibility of the citizens for their own health.

The health is priceless but health services cost money. Living within a defined budget means that balance must be established between the needs within the possibilities that are available.

This strategy gives priority to those health services that are most needed and most efficient, as well as most appreciated by the population, reflecting the views of both the experts and the public.

The choices made in the strategy are based on the development of the health care system in the Republic of Macedonia so far, and various national and international documents and strategies have been used.

The strategy is based on the Constitution of the Republic of Macedonia which guarantees the right of every citizen to health care, the World Health Organisation's "Health for all in the 21st century" strategy for the European region, the Millennium Declaration of the United Nations, the public health policy of the EU, as well as on finished policies and strategies in various fields of health and health care (HIV/AIDS, tuberculosis, mental health, alcohol, tobacco, drugs, food safety and nutrition, pharmaceuticals etc.)

Article 39 of the Constitution of the Republic of Macedonia

Every citizen is guaranteed a right to health care. Citizens have the right and duty to protect and promote their own health and the health of others.

Everyone has the right to live in a healthy environment. Everyone is obliged to promote and protect the environment. The Republic provides conditions for the exercise of the rights of citizens to a healthy environment (Article 42 of the Constitution of the Republic of Macedonia).

The health care system of the Republic of Macedonia will be developed so that it becomes compatible with the EU system, thus providing for free movement of the health professionals, services and patients.

Underlying principles and values of the health strategy are:

- * Equity, which means that the whole population has financial and geographical access to a package of basic health services.
- * The citizens, the Government, all health care institutions providing health services, public and private enterprises, as well as non-governmental organisations, are responsible for the health.
- * Health insurance, creating mutuality and solidarity between sick and healthy, poor and rich, and young and old.

The goal of better health for all will be achieved by:

- * Strengthening health promotion and disease prevention.
- * Reduction of inequalities in health and access to health services.
- * Strengthening of primary health care as the foundation of the health care system.
- * Reorganization and promotion of the secondary and tertiary health care.
- * Modernisation of public health services.
- * Better planning and management of the human resources in health care.
- * Assurance of the quality and effectiveness of health services.
- * Achieving efficiency and financial sustainability of the health care sector.
- * Appropriate mix of public and private providers in the health care system.

The health care system provides:

- * Public health services aimed at the community, as well as health services to individuals;
- * The generation of human and financial resources;
- * Proper financing of the health care sector: raising and pooling of sufficient financial resources, purchasing effective and quality services from health care providers, and proper methods for paying health care providers;

- * Stewardship: effective and efficient organisation and management of the health care sector.

The strategy uses the functional approach to the health care system, as proposed by the World Health Organisation.

The statistical data in this strategy are taken primarily from official publications of the Ministry of Health, the Republic Institute for Health Protection (RIHP), and from the “Health For All” database (HFA-DB) of the European Bureau of the World Health Organisation.

1. ANALYSIS

1.1. CHALLENGES: THE NEED FOR REFORM

Target 1

The present gap in health status between the Republic of Macedonia and the member states of the European Union should be reduced by at least one third.

The Republic of Macedonia, with the independence gained in 1991, inherited a large and well-established health care system with good geographical and financial accessibility, long positive experience with health insurance covering nearly the whole population, qualified staff, good control of infectious diseases, and almost full coverage of the population with the national immunisation programme. The health status of the population is similar as in the other countries of South-Eastern Europe, but is lagging behind the EU countries. However, the health care sector is faced with several challenges associated with the improvement of the health status of the population, the provision of basic benefits package, delivery of health services, public health, planning, management and development of human resources, quality assurance, health financing, and provision of a sustainable system of health care.

2. DEMOGRAPHIC AND SOCIO-ECONOMIC SITUATIONS

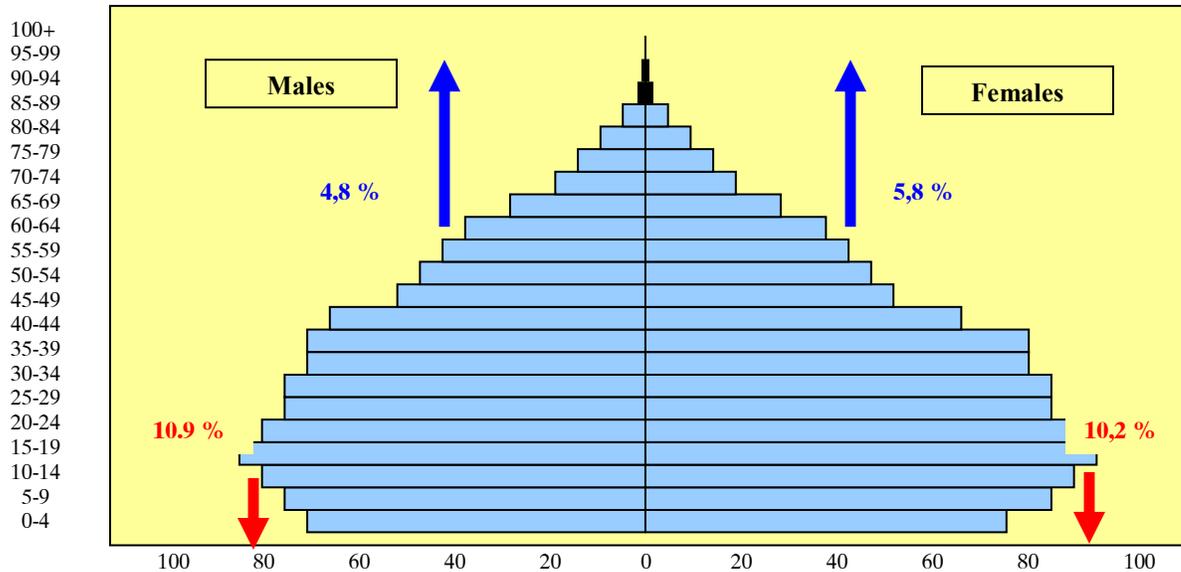
Target 2

The health gap between socio-economic groups within the Republic of Macedonia should be reduced by at least a fourth, thus substantially improving the level of health of disadvantaged groups.

The Republic of Macedonia has a total population of 2,022,547 inhabitants (2002 census), of whom around 60 % live in urban areas, with an average population density of 78.6 inhabitants/km². Demographic, economical, social, environmental as well as health characteristics of the population demonstrate significant rural-urban differences. An important demographic characteristic of the country is its multiethnic composition of the

population, with 64.18% Macedonians, 25.17% Albanians, 3.85% Turks, 2.66% Romas, 1.78% Serbs and 0.4% Vlachs.

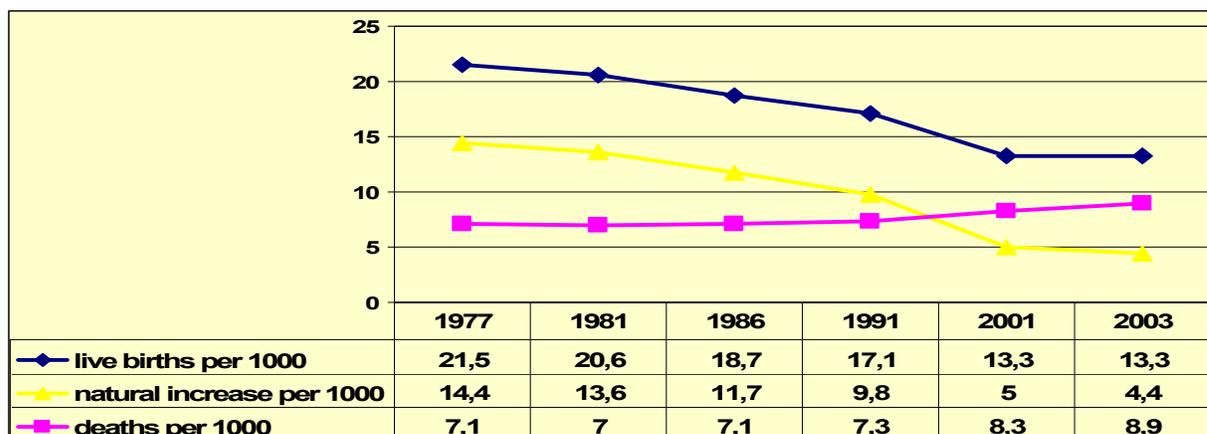
Figure 1. Age pyramid, mid-2003.



Source: Statistical Yearbook of the Republic of Macedonia, 2004.

From 1990 to 2003 the percentage of the population over 65 years of age increased from 7.97 to 10.6% (males 4.8% and females 5.8%), while the population from 0-14 years decreased to 21.1% (males 10.9% and females 10.2%) – as shown in Figure 1. Notwithstanding the increase in the proportion of the elderly population, the population is still relatively young in comparison with the averages for the EU and for Central and Eastern European countries.

Figure 2. Natural demographic changes, 1977-2003



Source: Statistical Yearbook of the Republic of Macedonia, 2004.

The birth rate in Macedonia for 2004 is 11.5 per 1,000 population, and the mortality rate 8.8 per 1,000, resulting in a natural increase of 2.7 per 1,000.

Target 5

People over 65 years will have a better health and a more active social life.

The distribution of deaths by age shows the highest proportion of total deaths for age 75 and over (43,6%). Age group 65-74 accounts for 28%, and age group 55-64 for 13.4% of the deaths.

The per capita Gross Domestic Product for 2004 was US\$ 2,382. The unemployment rate in Macedonia in 2005 was 36.5% of the total labour force, placing Macedonia among countries with an extremely high unemployment rate in Europe.

The relative poverty in the Republic of Macedonia for 2004 is expressed with a Poverty Gap Index - the average proportionate expenditures shortfall for the total population - of 9.4, and with a Head Count Index - the percentage of persons living below the poverty line - of 29.3% (source: State Statistical Office, 2005).

The population groups identified as being most at risk of poverty are the unemployed, socially imperilled households, pensioners and farmers. Larger households in rural areas, particularly those with members that are unemployed or have low educational levels, are identified as a specific risk together with the unemployed in urban areas. Poverty has a serious impact on the health status of the population and on the access to health services.

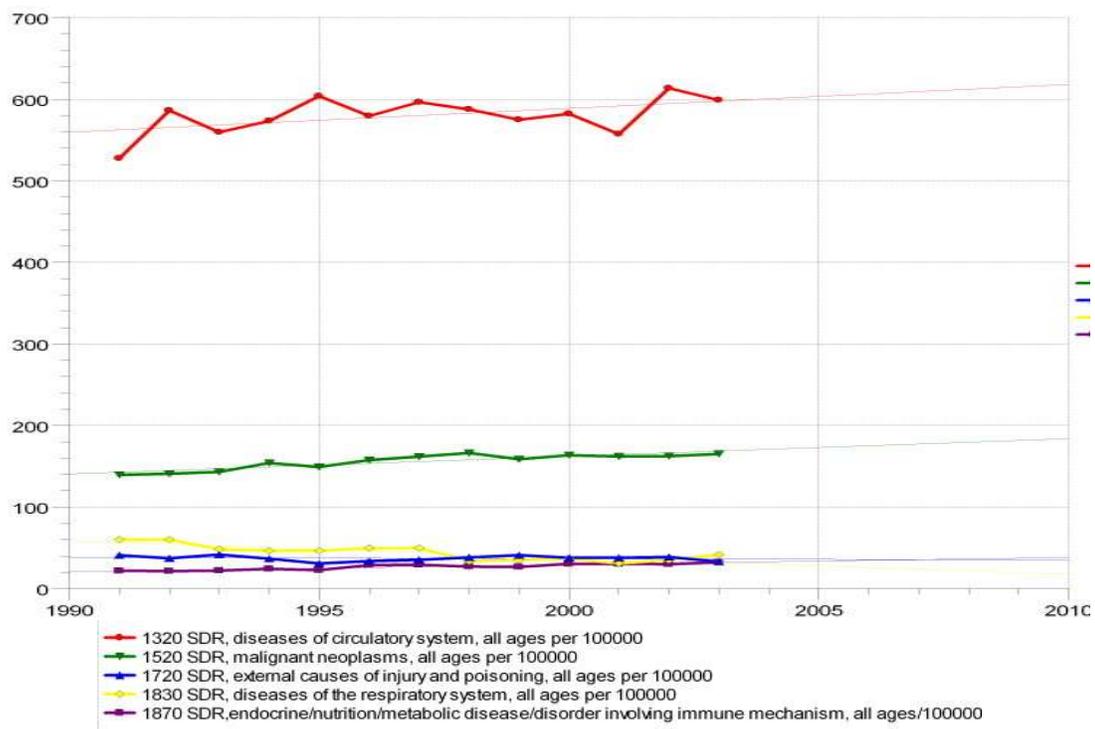
3. HEALTH

Morbidity and mortality are part of human existence, but we should always try to maximise the number of healthy life years for all citizens. This means reducing morbidity and mortality from preventable diseases, but if necessary also by effective cure and care services. In some respects of health, Macedonian citizens are less healthy than the average EU citizen. It is difficult to compare differences in the burden of disease between countries except for some specific diseases. As for the total number of years an average citizen can expect to live (average total life expectancy at birth), this is five years less in Macedonia than in the 15 “old” countries of the European Union (EU15): 73.5 years vs. 79.1 years (source: HFA-DB, 2003 data). As in most other European countries, Macedonian men can expect to live 5 years less than Macedonian women. Much of the difference with EU15 is explained by a higher prevalence of cardiovascular disease, partly caused by a high use of tobacco and by uncontrolled hypertension and hypercholesterolemia. Another indicator that combines life expectancy with the burden of disease is the so-called “healthy life expectancy”, i.e. the total number of years that a person can expect to live in good health, without disease or permanent disability. Healthy life expectancy in Macedonia is 63.4 years, compared to Greece (71.0), Bulgaria (64.6), Serbia & Montenegro (63.8), and Albania (61.4) (source: World Health Report 2003).

Circulatory diseases are the leading cause of death in Macedonia, accounting for nearly 57% of all deaths in 2004. The standardised death rate (SDR) per 100,000 inhabitants for circulatory diseases has increased from 527/100,000 in 1991 to 599/100,000 in 2003. In this context, stroke is prevailing.

Overall mortality from malignant neoplasm as the second most important cause of death has also increased over the past ten years, from SDR 140/100,000 in 1991 to 165/100,000 in 2003. Injuries and poisoning are the third leading cause of death. Respiratory diseases occupy the fourth place, with bronchitis, emphysema and asthma accounting for more than 60% of these deaths. Diseases of the endocrine system represent the fifth most important cause of death.

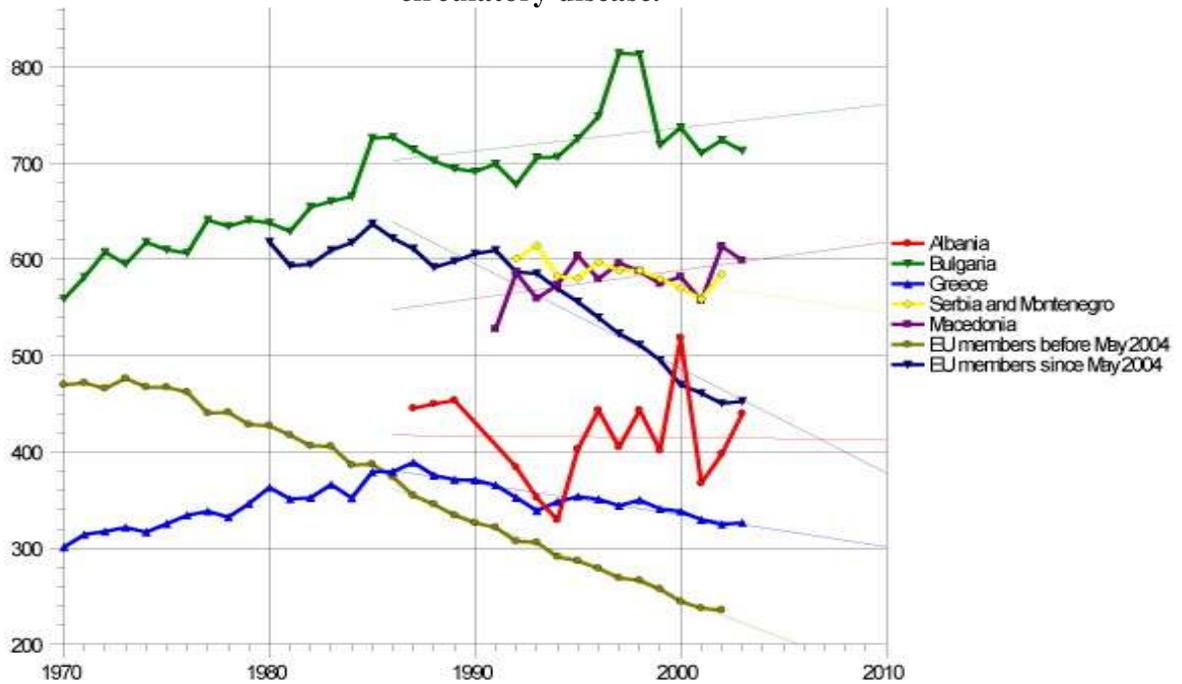
Figure 3. Standardised death rates (SDR), all ages, per 100,000 inhabitants for selected diseases.



Source: WHO HFA-DB, January 2006.

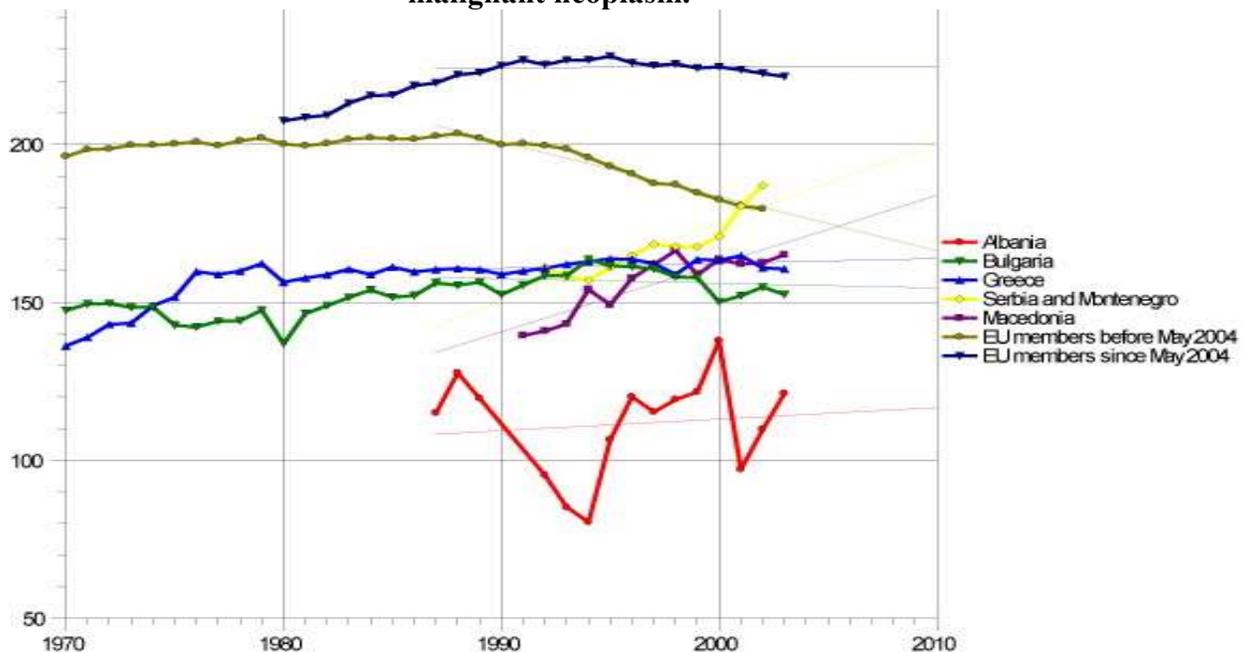
The standardised death rates for cardiovascular diseases in the Republic of Macedonia are high compared to Albania, Greece and the EU15. The standardised death rate for cancer is about average (see Figures 4 and 5).

Figure 4. Standardised death rates (SDR), all ages, per 100,000 inhabitants for circulatory disease.



Source: WHO HFA-DB, January 2006.

Figure 5. Standardised death rates (SDR), all ages, per 100,000 inhabitants for malignant neoplasm.



Source: WHO HFA-DB, January 2006.

Target 3

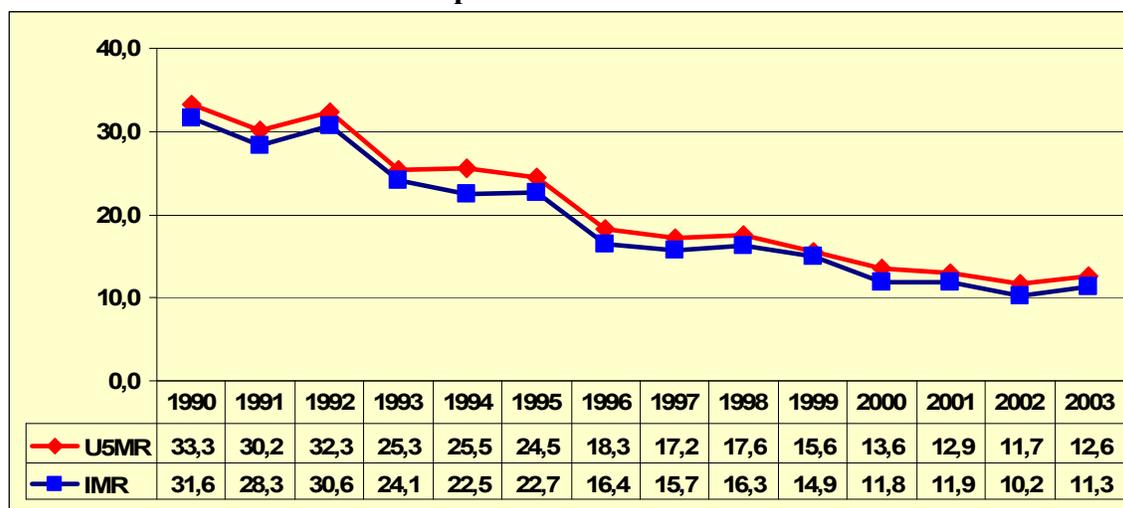
All newborn babies, infants and pre-school children in the Republic of Macedonia should have better health, ensuring a healthy start in life.

Target 4

Young people in the country should be healthier and better able to fulfil their roles in society.

These targets will be achieved also through the accomplishment of the Millennium Development Goal No. 4 – reduction of the under-five mortality rate by two-thirds by 2020. This rate was 33.3 per 1,000 live births in 1990 and 12.6 per 1,000 in 2003 (see Figure 6). The rate for the Republic of Macedonia should be below 11 per 1,000 in 2020. Infant mortality rate in 2004 was 13.2 per 1,000 live births, and in 2005 it was 12.8 per 1,000 live births.

Figure 6. Infant mortality rate and Under 5 mortality rate in Macedonia for the period 1991-2003.



Source: Macedonian MDG report, 2005.

Maternal mortality rate in the RM has been variable in the last years; for 2001 it was 14.8 on 100,000 live births, and for 2003 it was 3.7 on 100.000 live births (WHO HFA Database). MDG 5 is about reducing the maternal mortality rate and bringing it under the category of “sporadic cases of maternal mortality”, which would be result, inter alia, of the high proportion of births taking place in health care facilities (98,9% in 2005) (source: Statistical Yearbook of the RM for 2006, page 66).

Target 6

People’s psychosocial well-being should be improved and better comprehensive services should be available to and accessible by people with mental health problems.

At present, the institutional treatment is prevailing in the mental health system. In recent years, five community centres for mental health have been established in Skopje, Prilep, Tetovo, Gevgelija and Strumica, which provide day treatment, ambulatory care, home care and psychosocial rehabilitation in the community. The most commonly treated patients are those that have been on a long-term psychiatric treatment in an institution, as well as those that need services in the area of mental health. National Strategy for the Improvement of Mental Health for the period 2005-2012 was adopted by the Government in 2005, the aims of which include: de-institutionalisation in the area of mental health; general hospitals taking over the role of the psychiatric hospitals; and opening of community mental health services. Primary health care services are at the moment not well prepared to cope with patients with mental health problems. There isn't any sufficiently developed network of services for counselling and treatment of children and adolescents with such problems either.

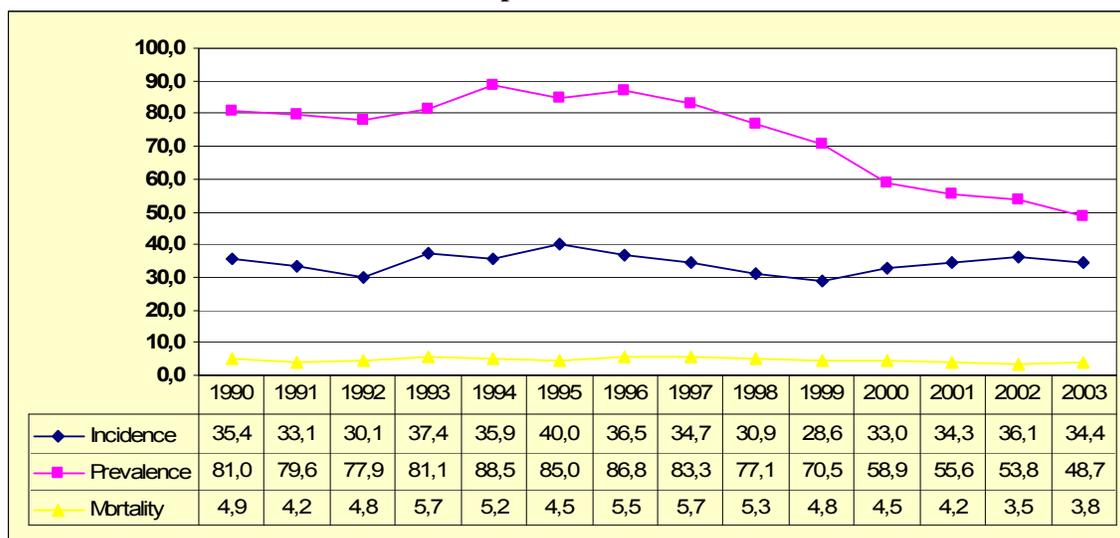
Target 7

The adverse health effects of communicable diseases should be substantially diminished through systematically applied programmes to control, eliminate and eradicate infectious diseases of public health importance.

MDG 6 is to halt and begin to reverse the spread of HIV/AIDS and TB by the year 2015. The number of known cases of HIV/AIDS is low in the Republic of Macedonia, but actual trends are not very clear and it is assumed that the actual number is significantly higher. The cumulative number of registered patients with HIV/AIDS was 96 at the end of 2006, of whom 69 with AIDS and 27 HIV positive. The National Strategy against HIV/AIDS for the period 2003-2006 is for the most part implemented through the Program for prevention of HIV/AIDS supported by a grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The National Strategy on prevention of HIV/AIDS in the Republic of Macedonia for the period 2007-2011 was developed under this program.

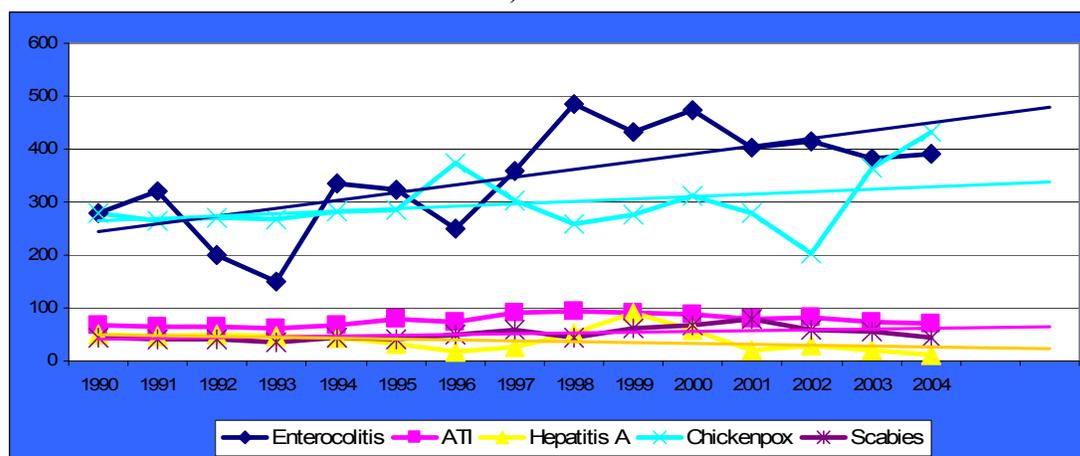
The incidence of tuberculosis is higher in Macedonia than in EU15 countries: 32 vs. 10.4 per 100,000 population in 2003. Regional figures are: Bulgaria 41.3/100.000; Serbia and Montenegro 37.2/100.000; Croatia 33.7/100.000; Albania 17.7/100.000, and Greece 5.6/100,000 (source: WHO EURO TB). A 5-year National Program for Control of Tuberculosis was implemented in the RM during the period 2000-2005. In fact, the incidence of tuberculosis has been relatively stable during the last 15 years with 600-700 new cases per year, but the prevalence rate has decreased by one-third in the last 5 years, which shows the effectiveness of the implementation of the DOTS treatment (see Figure 7). The occurrence of multi-resistance against anti-tuberculosis drugs is also being monitored under MDG 6. The Republic of Macedonia is a partner in the Global Fund project for fighting tuberculosis. The preparation of a National Strategy on Control of Tuberculosis 2007-2011 is underway.

Figure 7. Tuberculosis prevalence and incidence in Macedonia for the period 1990-2003.



Source: Government of the Republic of Macedonia report on the MDGs, 2005.

Figure 8. Number of registered patients per 100,000 for five most frequent communicable diseases in Macedonia, 1990-2004.



Source: RIHP, 2005.

Figure 8 gives the trend of the 5 most common infectious diseases in the Republic of Macedonia. The first two places are occupied by enterocolitis and chickenpox, followed by food poisoning, Hepatitis A and scabies.

Target 8

In the Republic of Macedonia, morbidity, disability and premature mortality due to major chronic diseases should be reduced to the lowest feasible levels.

The coronary artery disease is an important public health problem in the country, with a fast pace of increase in mortality (the number of deaths has increased for 44% over ten years), and with an average of 100 deaths per 100,000 population.

The standardized rate of death from cerebrovascular diseases for the age group 0 – 64 amounted to 37.2/100,000 in 2003 in the Republic of Macedonia, according to WHO. This indicator for the EU countries in 2003 was 9.87/100.000.

In 2004, 5696 cases of cancer were registered in the Republic of Macedonia, with a tendency of increase. Cancers, with the effects they have on human health, the high mortality rate and the high expenditures for the diagnosing and treatment thereof are a significant burden on the health care system.

Around 11 people per 100.000 population die each year from kidney failure on average, with half of the deaths due to chronic kidney failure.

The number of patients on dialysis is around 1.200 each year, with 1.159 patients registered in 2005. In total, around 20-25 transplantations are carried out annually, the majority of which are from a living donor (source: RIHP, 2005).

The preparation of a Strategy for prevention and control of non-infectious diseases is underway.

Target 9

There should be a significant and sustainable decrease in injuries, disability and death arising from accidents and violence.

Injuries, permanent disability and deaths occur, inter alia, as a result of unintentional injuries and violence. Unintentional injuries are predominant in the total number of injuries, with a share of 67%, wherein traffic accidents account for 34%, suicides for 24% and homicides for 9% (State Statistical Office, 2006).

Contrary to most chronic diseases, children and young adults are frequently victims of accidents and violence. Traffic traumatism data show that injuries acquired in road traffic cover 50% of all the injuries causing death among children and adolescents (source: State Statistical Office, 2006). Children and young adults up to the age of 24 are an important proportion in the total number of people injured (43.6%) and deceased (26.5%) in traffic accidents. Frequency and mortality from traffic accidents increase with age, and they are three times higher in men compared to women (source: RIHP, Faculty of Medicine, 2002).

Target 10

The population should live in a safer physical environment, with exposure to contaminants hazardous to health not exceeding internationally agreed standards.

Good health and well-being require clean and harmonious environment in which physical, physiological, social and aesthetic factors are important. Human health depends on the availability and quality of food, water, air and housing. Even though the influence of the physical environment has been known for quite some time, the actuality of the problem is a result of new scientific evidence showing the link between the physical environment and the health. Several studies have shown that environmental risks account for 25-35% of the disease burden at global level (source: WHO-Environmental Burden of Diseases Series, 2004).

Macedonia has a few environmental hot spots, characterized by high levels of pollution (air, water and soil), due to emissions from industrial facilities (Environmental Performance Review UN/WHO, 2001).

National Environmental Health Action Plan was drafted in 1999, and it will be revised according to the second National Environmental Action Plan. In this segment, one should provide for intersectoral cooperation with other competent ministries and institutions.

Target 11

People across society should adopt healthier patterns of living.

Target 12

The adverse health effects from the consumption of addictive substances such as tobacco, alcohol and psychoactive drugs will decrease significantly in the Republic of Macedonia.

Health statistics is insufficient with data on lifestyles. Several surveys have been carried out in the Republic of Macedonia in order to explore smoking habits. In 2002, through the realisation of WHO Project “Global Youth Tobacco”, it was found out that the prevalence of regular smokers was 8.2% among teenagers aged 13-15 years, and 20% of them started smoking before the 10th year of life. 16% of the non-smokers stated that in the future they would maybe start smoking. In a survey that was carried out in 2000-2001 aimed at planning of health education activities for the prevention of risk factors for ischemic heart disease among the population aged 15-64 years old, a high prevalence of smokers was found (42.7%). There was an association between smoking and age, but not with the educational level (source: RIHP, Medical Faculty, 2004).

A comprehensive Health Promotion Action Plan has not been developed yet. Under preparation is Strategy for Promotion of Adolescent Health and Strategy for Blood Safety. The National Food and Nutrition Action Plan is in process of implementation (until 2007).

The Government has also adopted a Strategy for Fighting Tobacco in 2006, and since 16 September 2006, Macedonia, as a member-state of the WHO, ratified the WHO Framework Convention on Tobacco Control. Enforcement of the restriction of smoking in public and working premises is underway.

The first draft of the Strategy for Fighting Alcohol has been prepared. The Strategy for Drug Control, which defines the objectives and the activities in the area of drug demand and drug availability reduction for the period 2006-2012, was adopted by the Government in December 2006, and under preparation is the Action Plan for the implementation thereof.

4. DELIVERY OF HEALTH SERVICES TO CITIZENS

4.1 Overview

Health care in the Republic of Macedonia is relatively easily accessible (geographically, economically and time-wise) for the population, because it is delivered within a widespread network of health care institutions. This makes it possible for around 90% of the population to get a health service in less than 30 minutes. Three segments comprise the health care system: primary, secondary and tertiary health care. Like in many other countries, the health care system in the Republic of Macedonia is oriented towards primary health care as the basis of the system, where the first contact with the health service is made and where the majority of the health care needs of the population are satisfied.

Patients who need health care at higher level are referred by the primary health care doctor to ambulatory-policlinic treatment or hospital treatment. The network of health care institutions at secondary level is widespread, with certain differences in terms of space capacity and availability of staff and equipment. Despite the widespread network of different health care institutions, the system does not function as an integrated and co-ordinated system.

There are several reasons for the lack of integration and co-ordination:

- The first reason is that the system is too fragmented and super-specialised.
- The second reason is that the chosen doctor usually does not provide comprehensive care and is not considered as the key player in the system.
- The third reason is that there are insufficient rules and incentives in place for proper gate keeping and referral to higher levels of the health care pyramid, as a result of what many patients are treated at inappropriate levels.

4.2 Primary health care

Target 15

The population in the Republic of Macedonia will have better access to family- and community-oriented primary health care, supported by a flexible and responsive hospital system.

Primary health care in Macedonia is provided by different types of private and public health care organizations: doctor's offices, health stations and health houses. Preventive, promotional and curative services are provided in the primary health care. The latter is provided by many different types of health workers and co-workers: general physicians, specialists in general medicine, paediatricians, specialists in school age medicine, gynaecologists, and specialists in occupational medicine. The health workers mentioned above do not provide comprehensive primary health care except in villages with only one doctor. This system performs well in some areas (for example when providing immunisation and antenatal care) and less well in others (for example non-rational prescribing, high referral rates, lack of co-ordination between various treatments, and prevailing medicamentous treatment of the patients with mental health problems without paying sufficient attention to the psychosocial dimensions of the treatment). Too many patients are being seen by emergency care services or by secondary and even tertiary level physicians that could have been treated well at primary care level if the conditions there would have been better, or if gate keeping had been respected better.

As in many other transition countries, widespread privatisation has taken place in the dentistry and pharmacy sectors (which will be discussed in chapter 10). Many physicians have also set up private practices. At present, 607 out of 1,722 primary health care physicians (most of them general physicians, paediatricians and gynaecologists) are working in private practice (source: Ministry of Health). Private primary care physicians do not provide comprehensive primary care including all preventive services and urgent care after office hours, i.e. they do not provide continued health care. The purpose of privatisation of the primary health care is to improve the quality of the health services, but its short-term and long-term consequences for service delivery have been insufficiently analysed.

Citizens covered with the compulsory health insurance are obliged to choose a doctor in the primary health care sector - in a private or public health care institution. The principle of choosing a doctor in the primary health care in Macedonia has traditionally been fragmented and depends on the age and the sex of the users. Members of one family will usually have several chosen doctors (general practitioner, gynaecologist and paediatrician). A chosen doctor is not the same as family physician. In order to avoid fragmentation of the primary health care system, the Ministry of Health will aim at establishing multidisciplinary teams where the different doctors in one family will be in direct contact and cooperation.

4.3 Secondary and tertiary health care

Secondary health care is provided in specialist-consultative services, general and special hospitals, offices and institutes. Tertiary health care is provided in clinical hospitals and in the University Clinical Centre. Preventive, curative and rehabilitation health services are provided at these two levels, and health care is provided by different types of specialists and sub-specialists. There are nearly 10,000 beds in the hospital sector, or 4.8 beds per 1,000 inhabitants, which is less than the EU average (6.2 per 1,000 population). More than half of the hospital beds are in specialised or tertiary care, which is too high of

a proportion. Skopje is over-supplied with 4,751 hospital beds (including the Military Hospital with 420 beds), divided into 1,848 beds in specialised hospitals, 360 beds in daily hospitals and 2,123 beds in the Clinical Centre (tertiary health care). There is no general secondary hospital in Skopje. (Source of hospital data: Institute of Health Protection - Skopje, 2006.)

Apart from the University Clinical Centre in Skopje with 2,123 beds, there are 17 specialised and/or tertiary hospitals in Macedonia: 3 psychiatric hospitals, 4 rehabilitation hospitals, and 10 other hospitals (with many different specialisations), with 3,180 beds altogether. (source of hospital data: RIHP).

Outside Skopje, there are 15 general hospitals (secondary health care) with at least the basic specialities of internal medicine, surgery, gynaecology and obstetrics and paediatrics.

Table 1. General hospitals (secondary level), 2004.

<i>General hospital</i>	<i>Number of inhabitants</i>	<i>Hospital doctors per 100,000 inhabitants</i>	<i>Staff with secondary school training per 100,000 inhabitants</i>	<i>Beds per 100,000 inhabitants</i>
Tetovo	(1)191,080	47	92	218
Kumanovo	(2)138,313	44	93	253
Bitola (including Resen, Demir Hisar)	131,198	107	188	480
Gostivar	(4)118,001	42	101	178
Prilep (including Krushevo and Makedonski Brod)	(5)117,587	58	124	341
Kochani (including Vinica, Berovo, Delchevo, Pehchevo)	(6)113,651	13	48	130
Strumica	(7)105,157	60	84	282
Stip (including Probishtip and Radovish)	(8)100,239	59	176	516
Kavadarci (including Negotino and Sveti Nikole)	(9)87,774	50	100	136
Veles	(10)66,675	109	328	466
Struga	(11)66,382	45	104	136
Ohrid	(12)61,055	95	270	385
Kichevo	56,901	21	76	216
Kriva Palanka* (including Kratovo)	(14)35,139	6	46	148
Gevgelija	34,885	40	138	479
Debar	24,616	28	102	284

* closed in 2005

(source: RIHP)

As shown in table 1, the staff and the number of beds at the level of secondary health care are not well distributed around the country. This situation is partly explained by the fact that these hospitals provide different types of health services that are not compatible with the number of population they serve.

In 2004, the occupancy rate varied between 50% and 65% in the different secondary, specialised and tertiary hospitals (except psychiatric hospitals), which is rather low in international comparison. The average length of stay was rather long in international comparison: 11 days.

4.4 Dental care

Dental care is delivered in public and private health care institutions: general and specialist's offices, health houses and the Dental Clinical Centre. Privatisation of general dentistry is finished, and the privatisation of specialist dentistry is being implemented at the moment. At present, 2,254 dentists have been registered in the Dental Chamber, and the number of dental auxiliaries in the country is 1,205 (source: RIHP, 2005).

The state of oral health of the population and of children in particular is far from adequate, also in international comparison. For 12 years old children, the DMFT-12 index for decayed, missing and filled teeth is 5.13. The DMFT-12 index is 1.47 in the 15 old EU countries and 3.71 in the 10 new EU countries (source: HFA-DB). The global objective of the WHO is that the DMFT-12 should be below 3. Orthodontic problems occur in 48% of the total population in the Republic of Macedonia. Private dentists are not interested in preventive dentistry for children, for financial reasons but also for lack of training in this field. (source: Dental Chamber of Macedonia).

5. PUBLIC HEALTH

Target 13

The people in the Republic of Macedonia should have greater opportunities to live in healthier physical and social environments at home, at school, at the workplace and in the local community.

Public health is: "the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society" (Acheson, 1988). Public health analyses and monitors the health status of the population, and tries to improve this health status by influencing the known determinants of health (also known as risk factors) such as environmental and microbiological causes, lifestyle and socio-economic factors.

Public health measures include health promotion (including health education), health protection (such as sanitary control), and personal preventive measures (such as immunisation).

The whole health care sector should participate in public health activities. The Government has certain institutions at its disposal that are specifically responsible for public health. These are the network of one national and ten regional Institutes for Health Protection and the network of the Institute of Occupational Health and peripheral occupational health services. The regional Institutes for Health Protection have 21 sub-regional branches called hygiene-epidemiological-sanitary stations. Within the Ministry of Health, there is a Food Directorate and a State Sanitary and Health Inspectorate.

Special importance is assigned to disease prevention in the Republic of Macedonia, at all levels: primary, secondary and tertiary prevention.

Specialized preventive health care is delivered by the Republic Institute for Health Protection – Skopje and the regional Institutes for Health Protection, with the local units of these institutes. With such territorial distribution, the whole territory of Macedonia is covered by specialized public health services that are responsible for performing public health functions.

The Institutes for Health Protection are not sufficiently equipped and modernised to be able to perform the functions of analysis and planning, health promotion, control of communicable and non-communicable diseases, risk assessment, environmental health, and emergency preparedness.

Most financial revenues of the Institutes for Health Protection come from the laboratory work. Public health is the responsibility of the Government, but a small part of the revenues are provided from the State budget.

At slightly more than € 1 per inhabitant, this allocation for public health by the HIF is very low in international comparison, considering that revenues from the Ministry of Health and other government sources for public health activities are negligible.

Target 14

All sectors should recognise and accept their responsibility for health.

Many public health activities such as health promotion, food safety control, occupational safety and health, control of communicable and non-communicable diseases, and environmental risks control are intersectoral by nature, involving various ministries and institutions. However, such intersectoral cooperation for protection of the public health is not well developed yet, and various functions are performed less than optimally as a result. Modern legislation compatible with the EU policy and legislation is missing in this field.

Specific occupational health activities are performed through the Institute of Occupational Health and by occupational health services mainly within primary health care facilities (health houses). The occupational health services under the PHC were more oriented towards curative occupational medicine than towards modern preventive occupational health and safety activities. Except for certain categories of employees that are exposed to a high risk at the workplace, employers do not pay for occupational safety and health measures. Many occupational medicine activities at enterprise level have been discontinued, and the so-called occupational medicine dispensaries closed.

The Macedonian Society of Occupational Medicine and the Institute of Occupational Medicine have made efforts during the last few years to establish the basis for a new model of occupational health services through an intersectoral approach.

“National strategy for health, healthy environment and safety at work” has been adopted in order to strengthen basic occupational medicine services, to expand their coverage, and to improve their content and activities. The status of the Institute of Occupational

Medicine and of the occupational medicine services should be adjusted to the proposed new organisation.

6. HUMAN RESOURCES

Target 18

In the Republic of Macedonia, conditions should be created for the health workers and co-workers to acquire appropriate knowledge, attitudes and skills to protect and promote health.

In 2004, there were 17,349 medical workers (including 4,573 physicians) and 5,528 non-medical workers working in Macedonia. Because of the transformation of part of the health care facilities (16 medical centres) into health houses and general hospitals (2004-2005), problem occurred in the official health statistics with regard to the exact location of the staff by individual levels (types of health care institutions), which makes international comparison difficult. Another problem in the Republic of Macedonia is unemployment of health care staff. In 2004, officially there were 5,344 unemployed medical workers: 376 doctors, 269 dentists, 66 pharmacists, 260 staff with postsecondary education, and 4,373 staff with secondary medical school education (half of them nurses and midwives).

Although there is unemployment among doctors and nurses, their numbers per 100,000 population in Macedonia are lower (around 224 doctors) than the averages in the European region of the WHO, which were 353 doctors and 689 nurses per 100,000 population (source: HFA-DB). Moreover, doctors are not evenly distributed in the country - as shown in chapter 5. It is generally recognised that there is a surplus of non-medical staff in the health sector.

The situation is becoming even more complex because of the existing number of students that are being trained in the country and abroad. In 2004, in all years of studies, there were 1,467 students at the Medical Faculty, 1,297 students at the Dentistry Faculty, 550 students at the Pharmaceutical Faculty, as well as 1,600 nursing students in the Bitola Nursing College. This is far more than needed for replacement of staff leaving the system. Moreover, a large but unknown number of students from the Republic of Macedonia are studying abroad in Prishtina, Sofia, Tirana, Belgrade and other cities. When they finish their studies, the majority of them will continue to exert pressure for employment in the health sector.

Table 2. Age structure of existing primary health care doctors in 2005 providing health services to insurees.

<i>Type of PHC doctor</i>	<i>< 41 years</i>	<i>41-50 years</i>	<i>> 50 years</i>	<i>Total</i>
general medicine*	544	419	373	1,336
paediatrics	15	87	126	228
gynaecology	15	75	72	162
school medicine	1	52	84	137
occupational medicine	4	34	80	118
total	579	667	735	1,981

* with and without specialisation

Source: HIF.

According to the data about the age structure of the PHC doctors providing health care services to insurees, two thirds are at the age of up to 50 years.

Complete data about the exact number of nurses working in primary health care and their age structure are not available because of the process of transformation in 2004, 2005 and 2006.

At the Medical, Dentistry and Pharmaceutical Faculties, specializations and sub-specializations in the relevant areas are taking place. The curricula and the duration of the specializations are in process of harmonization with the specializations in the EU member states.

Modules for additional training of doctors in primary health care have been prepared, which training is taking place in the Centres for continuous medical educations, and educators have been trained for teaching those modules. Respective PHC specialization has been introduced and Department for primary health care at the Medical Faculty has been established (during the Health Sector Transition Project, completed in 2002).

Nurses and midwives' job description is not well defined, and generally they are seen as auxiliary staff rather than as professionals with specific roles to play in the health care system. The system of 4-year secondary education for nurses, midwives, and technicians is not EU compatible. There is no specialisation within their 4-year curriculum, for example in family nursing or psychiatry. The curricula of the college for nurses within the Medical Faculty in Skopje are EU compatible. There is also a nursing college within the Dentistry Faculty.

Nurses also suffer from mass unemployment. The strong point of the primary health care nursing is the patronage service. Originally, the patronage service provided preventive care to mothers and children, and then it grew into polyvalent patronage service, for which additional training of 315 patronage nurses in community nursing was conducted.

7. HEALTH CARE QUALITY ASSURANCE

Target 16

The management of the health sector will be oriented towards providing quality health care of the population.

“Quality of health care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (US Institute of Medicine 1990). Although most health care professionals will by themselves try to optimise their work, the quality of the input, process and outcome of medical care should also be made measurable.

The Ministry of Health is responsible for ensuring the quality of the health care for the population in the Republic of Macedonia. The State Health and Sanitary Inspectorate monitors the compliance with various legal obligations, such as the record-keeping by health facilities, maintenance of proper sanitary conditions in facilities, and the control of infectious diseases. The HIF controls the exercising of the rights from health insurance.

For medical doctors, dentists and pharmacists, a system of licensing and relicensing has been established, and it is implemented in the Medical, Dental and Pharmaceutical Chamber. Accreditation of health care institutions is done only at the point of opening the institutions, and there is no system of continued re-accreditation. Accreditation of certain laboratories is underway.

Except for medical doctors, a system of compulsory and accredited continuing education courses required for relicensing has not been established yet. The financing of continuing educational activities is a problem in view of the low income of health care professionals. Another major bottleneck is the lack of access to Internet sources of information.

Internal and external expert oversight of the quality of health care is not performed on a regular basis.

The beneficiaries of health services are not actively involved in quality assessment yet, though indirectly they are involved through the selection of the chosen doctor. Although the law regulates the rights and responsibilities of patients, they are insufficiently informed about the exercising of these rights. A system of handling complaints is not well developed either.

Guidelines for primary health care have been developed, and clinical guidelines for specialist medical care (but not for dental care), based on evidence-based medicine, have been prepared. The existing guidelines will need constant updating in the future. Guidelines are being used for the improvement of the treatment of patients, but also for educational purposes and for the formulation of the positive list of drugs and of the basic benefits package.

All relevant institutions should be involved in securing the quality of health care: the Ministry of Health, the State Sanitary and Health Inspectorate, the Health Insurance Fund, the Republic Institute for Health Protection, professional associations (such as the Macedonian Medical Association), the Chambers and Faculties for doctors, pharmacists and dentists, the management of health care facilities, individual health professionals, and consumers. A comprehensive system of co-ordination and monitoring of the responsibilities for provision and control of the quality of health care is missing.

8. HEALTH CARE FINANCING

Target 17

One should provide for a sustainable financing and resource allocation mechanism for the health care system, based on the principles of equal access, cost-effectiveness, solidarity, and optimum quality.

Revenues from taxes have been reduced because of high unemployment, low wages, large informal economy and weak capacity for collecting taxes and premiums. The payment of high social premiums by a limited number of employers is hampering economic development. All this means that at present the long-existing health insurance system is under serious pressure, and in fact some conditions for having such a system are not met: low unemployment, a largely formal economy (as opposed to informal), and good capacity for collecting health premiums.

The health care sector is faced with rising costs and expectations because of the ageing of the population, the structure of diseases, and the availability of new drugs and technologies. On the other hand, revenues are rather low and they correspond to the present level of economic development, with approximately 5% of the Gross Domestic Product spent on health. Within the structure of the total revenues in the budget for health care, only 1.4% is from the State budget, excluding Government's transfers to the HIF. Average spending in the European region of the WHO was 6.5% of GDP, and 6.4% of GDP for the 10 new EU members in 2002 (source: HFA-DB).

95% of the public expenditures for health are passing through the HIF hands.

Table 3. Realised revenues and expenditures of the Health Insurance Fund in 2004 and 2005, in denars and %.

HIF	2004		2005	
Revenues	14,698,642,548	100%	15,249,561,381	100%
Contributions from salaries and other forms of personal income	8,417,953,548	57%	8,981,814,144	59%
Other non-tax revenues	564,211,024	4%	513,145,735	3%
Contributions from the Pension and Disability Insurance Fund	3,183,778,890	22%	3,417,132,194	22%
Contributions for unemployed individuals	1,848,850,820	13%	2,062,525,382	13%
Other transfers from social funds and from the Government budget	683,847,928	5%	274,943,929	2%
HIF	2004		2005	
Expenditures	14,697,631,367	100%	15,205,637,521	100%
HIF administrative costs	252,980,974	2%	169,012,506	1%
Primary health care (including 1.7 billion denars for drugs)	4,429,572,047	30%	4,588,553,590	30%
Specialist-consultative health care	3,312,694,593	23%	2,836,151,958	19%
Hospital care (including drugs)	4,940,635,822	34%	5,865,870,031	39%
Orthopaedic devices	173,035,849	1%	264,013,808	2%
Treatment abroad	220,346,975	2%	164,250,374	1%
Other health care services	200,578,417	1%	19,460,546	< 1%
Other contracting and operational expenses	36,452,428	< 1%	35,682,821	< 1%
Payments of compensations by the HIF (mainly for sick leave and maternity leave)	989,589,135	7%	1,069,890,166	7%
Expenses for interest and capital investment	141,745,127	1%	114,312,740	1%

Note: percentages do not add up to 100% due to rounding.

(source: HIF, 2006)

The lack of funds in the HIF is primarily a result of the incomplete and insufficient premium collection for health insurance both from employed citizens and from the State budget for the unemployed, pensioners, beneficiaries of social welfare and others. Whereas registered unemployed citizens are covered by full health insurance, some workers are not covered because the employer did not pay the premium. At present, approximately 150,000 citizens of the Republic of Macedonia are not covered by health insurance for various reasons. On the other hand, many citizens who are not formally employed fraudulently register themselves as unemployed to benefit from health insurance.

Another reason for the discrepancy between revenues and expenditures is that the special vertical programmes provided for in the Health Care Law are underfunded by the State budget. The low level of revenues for the health care sector is visible as a lack of investment in new equipment and lack of maintenance of buildings. In addition, no funds are reserved for the purposes of depreciation, neither by the Government and the HIF nor by the facilities themselves.

Because of the low level of revenues, inappropriate allocation of funds, inappropriate management of health care institutions, the insufficiently defined basic benefits package imposes the need for several types of interventions. Solution must be found for the arrears of the HIF and of the health care institutions.

It is expected that the management and functioning of the HIF will improve with a stronger influence of the Ministries of Health and Finance through their members in the HIF Management Board. So far, the HIF has lacked financial controls and oversight to act as a strategic purchaser of health services with a capacity for contract development - including new and more complicated provider payment methods - and monitoring of contract compliance. However, real strategic purchasing has also been prevented by an implicit obligation for the HIF to guarantee salaries for all public employees in the health care sector, and to provide services to patients for whom the government pays insufficient contributions.

The present system for paying inpatient and outpatient services is still largely based on supporting the existing infrastructure (staff, salaries and material expenditures). Financial management in health care facilities is poor due to lack of training of managers in this field. In general, there is a lack of incentives for cost control for patients and doctors. Competition between primary health care providers has started because of the introduction of payment by capitation, and so has competition between private pharmacies. However, competition between specialist outpatient services and between hospitals does not exist.

9. OTHER ISSUES

9.1 Pharmaceutical services

Pharmaceutical services are provided through a wide network of private pharmacies. The process of privatisation that took place in two ways is now finished: (i) through sale of pharmacies and (ii) through leasing out space and equipment for performing pharmaceutical activities. This sector is facing several problems:

- The existing Law on Medications, Remedial Products and Medical Devices is outdated, and many required bylaws have not been adopted yet.
- Notwithstanding that the Government has adopted a drug strategy, certain weaknesses are still present such as the dispensing of drugs without prescription in the pharmacies despite the defined dispensing regime.
- Irrational prescribing of drugs in primary health care, in spite of the training delivered on several occasions and the prepared guidelines for rational prescribing of drugs.
- There are no incentives in place for prescribing drugs more rationally.
- Lack of drugs from the positive list in the pharmacies, which leads to the submission of claims for drug cost reimbursement to the Health Insurance Fund.
- No reference prices of drugs are established.
- No margins paid by patients over the price for drugs at wholesale and retail level have been fixed, thus prices are different in different pharmacies.
- High prices of certain drugs.
- There are no data about the overall drug consumption in the country.

9.2 Health information system

There is no unique integrated information system in the health care sector in the Republic of Macedonia. The application of Information and Communication Technology (ICT) in the health care sector of the Republic of Macedonia is considerably lagging behind the European trends. Existing hardware and software shows considerable variations from hospital to hospital, but the general tendency is the almost total lack of ICT and total lack of Hospital Information System, with some exceptions. The exception from this general pattern is represented by the Special Hospital for Traumatology and Orthopaedics in Ohrid, with relatively new medical equipment, a functioning network and a fully functioning hospital information system (covering the entire hospital), by which all major patients related routines are electronically covered. The Clinics for Traumatology, Abdominal Surgery and Radiotherapy within the University Clinical Centre have also good ICT systems, but they are configured as stand-alone systems without possibility of data exchange with other stakeholders in the health care system. In other institutions in which ICT exists (for example the City Surgical Hospital in Skopje), it is used for a very small aspect of the operations - such as accounting and salary calculation - and it is not connected to the HIF. Most hospitals use computers as electronic typewriters only, and they are not connected to the Internet.

Primary health care providers submit the requested data to the Institutes for Health Protection and to the HIF on paper only.

The present information system of the HIF is relatively well integrated and functional. It is basically a hierarchically distributed system on two levels: central and branch offices. The data are saved in the central database, and branch offices only use the data that are of interest for that specific location. Electronic communication is established with the Treasury system, and data exchange via magnetic or optical media is realized with the Drug Bureau and the State Statistical Office.

The Republic Institute for Health Protection is the national reference centre for health statistics and the official partner of national and international organisations in this field (WHO). The Republic Institute and the 10 regional Institutes of Health Protection don't have appropriate IT staff, partially possess the necessary hardware and software for this purpose, but there is no integrated system that connects the 11 institutes with each other and with other relevant institutions such as the Ministry of Health, the HIF and health care facilities.

9.3 Consumers' interests

The rights of consumers of health care (insurees) are regulated by law, and they have a representative in the Management Board of the Health Insurance Fund. However, the consumers have little influence in the health care system of the Republic of Macedonia. The Consumers' Organisation of Macedonia has a view on certain problems related to the health services that consumers are most worried about.

Problems with regard to the rights of the consumers:

- Lack of drugs from the positive list of drugs, especially drugs for chronic conditions and during hospital treatment.
- Payments for services that are covered by the health insurance (drugs, laboratory tests, specialist examinations and hospital treatment).
- Lack of quality of the services that patients receive, irreverent treatment of consumers, lack of information provided by doctors, failure to perform necessary medical tests, and in dentistry - provision of materials of inferior quality.
- With regard to hospitalisation, patients complain about inappropriate food, lack of diet food, and bad hygienic conditions.

It is obvious that consumers have a formed opinion about the health care they receive, but there is no systematic way yet of measuring the consumer's satisfaction and protecting their rights and interests.

10. PRIORITIES OF THE STRATEGY

Priorities of the strategy

The analysis of the health status of the population and of the functioning of the health care system leads to the following priorities that are to be achieved by the year 2020:

- * Improving the health status of the population, with special attention to vulnerable groups, and with emphasis on health promotion.
- * The effectiveness and efficiency of the health care system needs to be improved through the introduction of professional management in the institutions, and structural changes in the delivery of health care services, with emphasis on primary care.
- * Modernizing the system for protecting the public health according to the EU standards, with emphasis on the network of Institutes of Health Protection and occupational medicine services.
- * Improving the planning and management of human resources in the health care system according to the needs.
- * Establishing a total health care quality assurance system.
- * Improving the health system financing by way of establishing a sustainable mechanism of financing and resource allocation:
 - by providing a clearly defined and unique basic benefits package for all the citizens, covered by the compulsory health insurance;
 - by improved financial control mechanisms and improved collection of the health insurance premiums;
 - by contracting health care institutions; and
 - by providing a possibility for several forms of additional health insurance.

These priorities are elaborated in the following chapters.

STRATEGY

11. PRIORITIES WITH REGARD TO HEALTH IMPROVEMENT

Achieving better health for all citizens is linked with other factors as well, such as the socio-economic influences and the influences of the environment. Achieving health improvement imposes the need for partnership and intersectoral cooperation (see targets 3-9 and 14).

Better health for newborn babies, infants and pre-school children (target 3 and MDG 4) will be achieved by way of strengthening the primary health care. Specific attention will be paid to reducing the high infant and children under five mortality rate.

Special attention will be paid to the health education for school children, which will contribute to better health for young people (target 4). This is especially important for the adoption of healthy lifestyles, such as proper nutrition, sufficient physical exercise, prevention of addiction to tobacco, alcohol and psychoactive substances (target 12), and prevention of sexually transmitted diseases including HIV/AIDS and mental health problems. To this end, intersectoral cooperation between health and educational institutions, local authorities, media etc. will be developed, with increased health promotion activity.

The health care sector will become actively involved in providing health care to people over 65 years (target 5). PHC teams will care for the health problems of these people, and will promote healthy lifestyles.

Increased accessibility and non-institutional forms of health care for people with mental health problems will be provided (target 6). Improvement of mental health care will be based on this Strategy and the Mental Health Strategy. The process of deinstitutionalisation of the treatment of these persons will continue, by opening new possibilities for treating them - community mental health centres.

Attention will continue to be paid to the control of infectious diseases of public health importance (target 7 and MDG 6), where the focus will be on the new infectious diseases (e.g. bird flu, SARS etc.). The activities associated with the fight against HIV/AIDS, tuberculosis and other infectious diseases that are of interest for the State will be strengthened.

Continued attention will be given to the safety of blood and blood products.

The morbidity, disability and premature mortality due to major chronic non-infectious diseases such as circulatory diseases (cardiovascular and cerebrovascular diseases), cancer, and diabetes will be reduced (target 8), by improving the health status through organized activities of the Government, health care institutions, non-governmental organizations and the citizens themselves.

Emphasis will be put on the primary prevention of these diseases, on maintaining and improving the health (healthy lifestyles, smoking reduction, regular physical exercise, proper nutrition etc.), and on the secondary and tertiary prevention. Within the secondary and tertiary prevention, the conditions for early detection and timely and proper treatment and rehabilitation of the patients in the respective health care institutions will be improved in order to provide for quality living.

The activities for prevention, early detection and modern treatment of cardiovascular and cerebrovascular diseases will be improved, as well as for appropriate rehabilitation of these patients.

Concerning cancers, given their large consequences and the burden on the health system, screening programs for early detection and prevention of cancers will be developed with the view of detecting them at an earlier stage - when treatment is much more efficient and cheaper. National Program for Cancer Control will be developed, and it will include prevention, early detection, appropriate treatment and palliative care.

Measures for early identification of diabetes patients and appropriate modern treatment thereof will be undertaken. National program for diabetes will be adopted.

Conditions for prevention, early detection and modern treatment of patients with chronic kidney failure will be provided, in addition to application of the standards for dialysis. Development of transplantation of organs and tissues will also be provided for.

Strategy for non-infectious diseases will be adopted for all chronic non-infectious diseases in accordance with the European strategy of the WHO for prevention and control of non-infectious diseases, which will unite the relevant programs.

Injuries, disability and death arising from accidents and violence (target 9) will be reduced by way of strengthening the intersectoral cooperation in order to achieve behaviour change and make the environment safer (application of the prescribed protection measures).

Injury and violence prevention will be implemented according to the Strategy for prevention and control of injuries and violence, with emphasis on injuries in children.

Emphasis will be put on improvement of health, on appropriate organization and strengthening of the emergency care, and on improvement of the organization of the traumatology service. Taking occupational safety measures will be the responsibility of employers (chapter 14).

12. PRIORITIES WITH REGARD TO THE IMPROVEMENT OF THE ORGANISATION OF HEALTH CARE

The health system will provide equitable access to all essential health services and targeted preventive measures for the whole population, and first of all for the vulnerable groups (target 2). This will be achieved by complete coverage of the population by a package of essential health services under the compulsory health insurance, and by having a personal chosen doctor and nurse who keep track of the health situation of the client.

The cooperation of the teams providing primary health care with the family and the school will be strengthened, in both the working and living environments (target 13). Municipalities will establish and develop measures for health prevention and promotion.

The cooperation and the functional links between the primary health care and the higher levels of health care will be strengthened in order to provide for an integrated health care system (target 15).

The use of the services in the secondary and tertiary health care will be possible only with referral by the chosen doctor in the primary health care (gate keeper), i.e. secondary and tertiary health care should only deal with patients whom the primary health care doctor can not provide with appropriate health care. Tertiary health care will only accept patients that cannot be appropriately treated at secondary level (general and special hospitals). The University Clinical Centre will provide secondary health care in the volume necessary for the teaching purposes of the Medical Faculty.

By 2020, the health care sector in the Republic of Macedonia will be reorganized in order to establish a simpler and more transparent system.

The basis of the system will be the primary health care with family medicine practices that will be providing integrated health care at the primary level. Over the following years, the Ministry of Health, with the view to improve the quality of health care, will encourage partnership and cooperation between the existing chosen doctors from the PHC for the purposes of multidisciplinary group practice in cooperation with the polyvalent patronage service.

Secondary health care will be provided in specialist-consultative services, general and specialized hospitals.

Tertiary health care with highly specialized diagnostics and treatment of patients that can not be treated in the general hospitals will be provided in the University Clinical Centre in Skopje and in a certain number of specialised hospitals.

Strengthening of primary health care is a key element of the health care reform and it will be oriented towards the individual, the family and the community.

Until the establishment of the family medicine practices, the existing PHC teams will provide comprehensive and continuous health care through mutual association and cooperation.

Family medicine practices will continue to provide comprehensive and continued health care.

Clear referral rules and financial incentives in the primary health care will be established.

The curricula and syllabi at the Medical Faculty and the nursing colleges will be further harmonized with the EU curricula. This process will also include programmes of additional training of existing primary care doctors and nurses during an agreed period and with agreed curricula. The training and additional training will be implemented in order to refresh the theoretical knowledge and to improve the practical skills organized in model training practices with accredited trainers and with standard equipment.

Specialised-consultative health care will continue to be delivered in specialist doctor's offices, polyclinics, and health houses in the municipalities with no hospitals. In municipalities where there are hospitals, it will be integrated and provided within the hospitals as well. This will contribute to rational use of the diagnostic equipment, duplication of procedures will be avoided when patients must be hospitalised, and staff will be rationally used because specialists can rotate between outpatient and inpatient care.

In Skopje, since there is no city general hospital, the specialist-consultative health care will be delivered in a separate health care institution for that purpose.

Specialist-consultative and inpatient health care will be reorganized in order to be accessible and to respond to the needs of the citizens from all over the country. General hospitals will provide a standardized type of health services at secondary level in order to regulate the referrals and reduce the pressure on the tertiary health care. Each general hospital will continue to have at least four basic specialties: internal medicine, surgery, gynaecology with obstetrics and paediatrics, with a possibility for taking care of a certain number of acute psychiatric patients.

One will make an analysis of the hospital capacities and carry out reorganization according to the recommendations on the total number of hospitals needed, on the necessary number of beds, on the concentration of high tech services and equipment in certain defined hospitals, and on other specialists than the four basic types. According to the recommendations, the types of services provided at secondary and tertiary (general and specialized hospitals, clinical hospitals and University Clinical Centre) level will be defined. The capital investments in public and private hospitals and the introduction of new technologies (expensive medical equipment and new services) will be made upon a previous approval by the Ministry of Health, according to previously agreed standards and needs (issuing a Certificate of Need).

Priority will be assigned to the further development of day hospitals and to solving health problems at outpatient level.

New forms of institutional care will develop in the coming period: nursing homes for chronically bed-ridden or terminally ill patients, for whom home care is not an option. The emphasis of these homes will be not on cure but on care, and they will provide more adequate services to this specific category of patients at a lower cost than for hospital care. The development of this institutional protection model will involve utilization of the parts of hospitals that are no longer needed according to the recommendations of the hospital reorganization exercise. Rehabilitation centres will be developed in some of them.

Primary care chosen doctors will provide continued health care in primary care practices that will organise 7 x 24 hours duty rosters among themselves.

Emergency cases that require treatment in a hospital will directly call the emergency service. The emergency service will be a subject of special analysis and reorganization by means of introduction of a unique calling number that will be identical with the number of the emergency services in the EU member-states.

The process of privatisation of the activities within the primary health care is in its final stage and is realized by way of leasing out space and equipment within an appropriate legal and regulatory framework and registration of private practices. Exceptions to this are certain preventive services for children and youth under 18 (immunization and systematic examinations), emergency service with home treatment, polyvalent patronage service and preventive dentistry for children aged 0-14, determined by the Law on Health Care, which will remain in the state-run health sector. To this end, the Plan for space requirements, equipment and staff will be implemented.

Geographical distribution of the existing teams for preventive health care will be carried out, given their current uneven distribution.

The type and scope of services in PHC that will be provided by private practices and the financing of these services will be standardized.

The basic motive for privatisation is to provide for effectiveness, efficiency and quality of the health care provided, by making the health care providers directly responsible for the services.

The Ministry of Health will be the responsible institution for providing quality health care to the population, and it will establish a system for continuous monitoring and evaluation.

In the forthcoming period, there is no need to privatise existing public hospitals in Macedonia, but the management and administration of hospitals will be strengthened (introduction of “health management”) by increasing the autonomy and the responsibility

of the managerial staff, composed of two directors whose work will be based on the principle of bound signatures. Competent staff - managers will be involved in management, who will have gone through appropriate training. As there is no shortage of hospital beds in Macedonia, the establishment of new hospitals will not be stimulated. Conditions in the existing hospitals will be improved and new modern equipment will be provided according to the principle of public-private partnership. On the other hand, privatisation is not an option for many health services (Institutes for Health Protection, transfusiology, transplantation etc.).

13. PRIORITIES WITH REGARD TO THE IMPROVEMENT OF THE SPECIALIZED HEALTH CARE - PUBLIC HEALTH

The specialized preventive health care will continue to be performed by the network of the Republican and regional Institutes of Health Protection. The network and the capacities will be reorganised, modernized and strengthened, and they will mainly perform the basic public health functions for the needs of the State and of the local self-government, as well as for other users of services.

The network of Institutes for Health Protection will improve the quality of data collection, processing and analysis. It will make analysis of the health status and planning of the health care, prevention and control of the infectious and non-infectious diseases, and external risk assessment and management. They will be responsible for the co-ordination and implementation of health promotion programmes together with other institutions. The role of the network of Institutes for Health Protection in the process of health policy-making will be strengthened.

Special strategy about the further lines of development of the public health will be developed.

The role of the Institutes for Health Protection in the monitoring and assessment of the risks from environmental pollution to the health of the population will be strengthened, in cooperation with other sectors (target 10). Action Plan for Health and Healthy Environment for the Children is under preparation.

The acceptance of healthy patterns of living (target 11) will be achieved by strengthening and directing the activities for health promotion, through elaboration and implementation of a health promotion strategy.

Particular attention will be paid to adolescents, who will be covered by program activities for health promotion and reduction of harmful effects on health by the consumption of substances that create addiction, such as tobacco, alcohol and psychoactive drugs (target 4 and 12). Strategy for promotion of adolescent health will be adopted.

The Ministry of Health and the other health care institutions will increase their influence in the other sectors in order to make sure that health protection considerations and risk

assessment are made when a new settlement or factory is built, when certain economic activities may create unacceptable noise or pollution levels for people living nearby, when schools are planned to be built in unsafe areas, etc.

The food safety system will be developed into an integrated system for food safety and control.

Occupational medicine services will carry out mainly preventive, and less curative activities, such as diagnostics and treatment of occupational diseases and injuries. The occupational medicine services and the Institute for Occupational Medicine will be organized as a national public health network according to the adopted Strategy on Health, Healthy Living and Working Environment and Occupational Safety in the Republic of Macedonia. All employers will be obliged by means of a special law to contract the accredited occupational medicine services for undertaking activities in the area of specific health care for all of their staff. Public responsibility for the occupational medicine services will be established, as well as the financing thereof from different sources. Strategy for occupational safety and health in small and medium sized enterprises will be adopted.

14. PRIORITIES WITH REGARD TO THE IMPROVEMENT OF THE PLANNING AND QUALITY OF HUMAN RESOURCES

The Ministry of Health will develop a long-term projection about the needs for health care personnel based on several indicators. The following indicators will be taken into consideration, inter alia: number of staff, age structure and profile of the staff, territorial distribution, migration, and needs for specialist and sub-specialist staff. The projection about the need for health care staff according to the priorities set in this strategy will be available to the public and will be the basis for designing the enrolment policy of the relevant faculties, colleges and secondary schools.

The territorial distribution of the staff will be achieved by providing financial and other types of incentives in order to provide for an even distribution of the health care staff in all parts of the country.

The Medical, Pharmaceutical and Dental Chambers will continue to carry out the process of licensing and relicensing according to established legal criteria. The curricula and syllabi for under-graduation and post-graduation studies and specializations of all health staff profiles will be further harmonized with the EU legislation.

Special emphasis will be placed on the harmonization of the curricula and syllabi of the schools for nurses and technicians in line with the EU legislation and the directions of the Nursing and Midwifery Strategy.

The further development of the primary health care with the introduction of family medicine by 2020 will take place according to the Action Plan for Primary Health Care

that will be prepared, and for the implementation of which significant financial support will be necessary. Additional training of a certain number of existing primary health care doctors and nurses will be carried out, and the remaining doctors and nurses as well as the new graduates that will choose to work in the PHC will follow residency and specialisation in family medicine according to the law. Doctors and nurses from the same family medicine practice will follow some modules of additional training together. The additional training and specialization in family medicine will be delivered by the Medical Faculty through the Centre and Department of Family Medicine, in accredited health care institutions and in the schools for nurses. They will develop curricula and syllabi and will provide an appropriate infrastructure for realization of the theoretical and practical training with trainers, patients and equipment. The financial resources will be provided from several sources (the Government, the staff to be retrained, foreign donors etc.). Certain topics of family medicine will be included in the regular under-graduation curricula for doctors and nurses. The existing programs for continuing education in family medicine will be upgraded and accredited.

15. PRIORITIES WITH REGARD TO THE IMPROVEMENT OF THE QUALITY OF HEALTH CARE

The faculties of medicine, pharmacy and dentistry will continue their efforts to upgrade their under-graduation and post-graduation curricula in accordance with the EU standards and practices.

In accordance with the procedures for licensing and relicensing of doctors, pharmacists and dentists, accredited programmes and courses for continuing education will continue to be developed, which will improve their continued professional development or life-long learning. The programs will be developed by the Macedonian Doctor's Association and the other expert associations, whereas the accreditation will be implemented by the respective chambers.

System for licensing and relicensing with accredited programs and courses for continuing education of nurses and technicians will be established. Appropriate professional associations for these profiles will be established, which will be carrying out the licensing and relicensing procedures.

Lifelong learning is primarily a responsibility of the professionals themselves, and the health care institutions will provide access to the Internet in the interests of professional improvement.

The development and updating of clinical guidelines (evidence based medicine) by the professional associations will continue, and will expand into the domain of dentistry and pharmaceutical therapy. The implementation of clinical guidelines will be an important element of continuing education programmes and of clinical audits.

System of formal quality assessments in health care will be established. Such audits (also known as “peer reviews”) will be performed both internally (by colleagues from the same institution or group practice) and externally (by specially trained experts from the professional associations or the chambers). The external audit will be part of the reaccreditation requirements.

The Ministry of Health will make an analysis of the existing control systems related to the state of the health care infrastructure: buildings, space, personnel and equipment, and will provide an organizational structure within the Ministry that will perform continuous monitoring of the quality.

There will be improvement of the protection of the consumers of health services against violations of their rights, and creation of an environment for their active participation in decision-making about life and health, through the adoption and implementation of the Law on the Rights of the Patients. The Consumers’ Organisation, patients’ organisations, and the representatives of the insurees in the HIF Management Board will increase the influence of the consumers of health services with regard to the dissemination of information on patients’ rights and on the quality of care provided by different service providers. Procedures will be established that will provide for unhindered communication between the providers and the consumers of health services, as well as for filing and handling users’ complaints.

The Ministry of Health will design a comprehensive quality assurance strategy that describes the roles and responsibilities of the many organisations and individuals that play a role in quality control. The emphasis will be placed on the internal self-regulation given that quality assurance is primarily a task of the health care staff and institutions, and the Ministry of Health will be ultimately responsible for ensuring the quality of the health care in the Republic of Macedonia.

The excessive use or abuse of the medical treatment will be eliminated with the establishment of the quality control system, which is also in the interests of improving the health status of the population.

The continuing education in the interests of quality assurance will be implemented in a planned and organized manner, while the financing will be a responsibility of the health staff and institutions, with an appropriate participation of the Government and donors.

16. PRIORITIES WITH REGARD TO THE IMPROVEMENT OF HEALTH CARE FINANCING

16.1 Macroeconomic context

Since the proclamation of independence, Macedonia has gone through a difficult economic period marked by GDP decline, salary decline, increased poverty and high unemployment. Revenues from taxes have been reduced because of high unemployment, low wages, large informal economy and weak capacity for collecting taxes and premiums. The payment of high social premiums by a limited number of employers is hampering economic development. All this means that at present the long-existing health insurance system is under serious pressure, and in fact some conditions for having such a system are not met: low unemployment, a largely formal economy (as opposed to informal), and good capacity for collecting health premiums.

The Republic of Macedonia will continue to base its health care financing on health insurance, which has a long tradition in the country. The basic source for collecting funds will continue to be the contributions from salary and other compensations that will be flowing into a single State fund for health insurance, with a large degree of solidarity between insurees, but with strict criteria of sustainability, financial control and Government's oversight.

The health insurance premium rates will remain at the same level while the collection of premiums will be improved, and the funds will be used for more efficient and effective health services. The Ministries of Finance, Health and Social Affairs will continuously co-operate for the improvement of the collection of premiums for the Health Insurance Fund by way of introducing a system for joint collection of the contributions located in the Public Revenue Office. The advantage of this way of financing health care instead of directly from the State Budget is that the Government will not be overloaded with procurements and financial administration, and development of the purchasing power of the population will be promoted. Health insurance will continue to be based on individual membership and contributions, which provides a better opportunity for less political influence in health care financing.

The HIFM will be strengthened and reorganized in order to fulfil its basic function in the implementation of the health insurance for the insured population, and to manage the funds of the insurees efficiently and effectively and to their best interests, according to the Action Plan for Improvement of the Functioning of the HIFM. The Government and the HIFM will develop a Plan for resolution of the arrears issue in the health care sector.

16.2 Financial control

The Ministry of Finance will continue to annually propose the next year's HIFM overall budget, based on plans for revenue collection. This budget must be approved by Parliament as the ceiling of HIFM expenditures in the coming year. The HIFM will

prepare a plan for allocating funds to all elements of the health care system in the coming year, which needs the approval of its Management Board. The HIFM is not allowed to commit itself to expenditures over the agreed ceiling. During the coming decade, the HIFM plan of expenditures will gradually change from a plan based on historical disbursements to one based on the purchase of the required type and volume of health services at negotiated prices. All contracts between the HIFM and the health care providers have a financial ceiling linked to an activities cap, which means that the financial responsibilities are shifted from the HIFM to the providers.

The management structure and the degree of autonomy of the HIFM have been adapted recently to provide closer government control. A detailed action plan for improving the functioning of the HIFM has been implemented since 2005. Budgetary control by the HIFM will be improved. The internal audit unit of the HIFM will monitor all financial flows. The HIFM will report its actual revenues and expenditures monthly to the Ministries of Health and Finance. The State Audit Office will perform an annual external audit of the functioning of the HIFM. The implementation of the agreed action plan for the HIFM under this new structure during 2006-2008 will be evaluated in 2009 to see if changes are necessary.

The Government and the HIFM will prepare a plan to solve the problem of the existing arrears of the HIFM, and submit it to Parliament. By law, the HIFM will not be allowed to make new debts in the future.

16.3 Basic benefits package

The basic benefits package is the basket of all health services provided to the insured population for which the providers will be entirely or partially reimbursed by the HIFM. That means that the patient does either not pay for these services at the point of service, or pay a fixed co-payment. The cost of providing the basic benefits package to the insured population must be calculated and fit within the HIFM revenues: the HIFM is not allowed to contract services that cannot be reimbursed, and the Government will not ask the HIFM to do this. Several methods can and will be used for balancing the revenues and expenditures of the HIFM:

- by redesigning the basic benefits package in accordance with the health priorities;
- by periodically revising the content of the basic benefits package depending on the available funds;
- by thorough assessment (including establishment of marginal cost-effectiveness) of new drugs and devices before they can be added to the basic benefits package;
- by defining priority preventive health services that will require no co-payment;
- by HIFM and providers negotiating the type, scope and price of curative services in the basic benefits package;
- by introducing higher co-payments for specific forms of specialist-consultative services in the outpatient-policlinic and inpatient care (while exempting certain categories of the population), thus diminishing informal payments out-of-pocket and enabling the provider to retain the extra revenues;

- by periodically revising the positive list of essential drugs and medical appliances included in the basic benefits package;
- by HIFM assuming the responsibility for the payment of funds for cases of sick leave and maternity by the relevant institutions;
- by adjusting the health insurance premium rates to the different categories of insurees if possible and necessary.

The periodically updated basic benefits package must be approved by means of a Decision of the Board of the HIFM, following the granted consent by the Ministry of Health.

The health services on the negative list outside the basic benefits package must be paid by the consumers of health services, in some cases at regulated rates and in other cases at free market rates. Individual citizens or employers on behalf of their employees can insure themselves additionally on a voluntary basis for expenditures for above-the-standard services and for other health services that are not included in the basic benefits package.

In principle, all Macedonian citizens registered in the civil registry will be considered as insured population regardless of who pays the insurance contribution: the employers, the citizens themselves, or the social funds. In case no contributions can be extracted from these sources, the Government will be responsible to contribute from the State budget. All citizens will be registered by the HIF, including their premium payment status.

The Ministry of Health will attempt to divert the financing of long-term institutional care, such as for psychiatric diseases, to the relevant institutions, and in the future also for other afflictions such as Alzheimer's disease.

16.4 Contracting and paying providers

The HIFM will continue to be the sole purchaser of services under the basic benefits package. Private companies can insure citizens for additional benefits on a voluntary basis.

The HIFM will improve its health service purchasing function and will make the payments for the health services solely on the basis of contracting providers for a certain type and scope of health services with defined prices, which are necessary to the insurees in all areas in the Republic of Macedonia.

The feasibility of the selective contracting will depend on the results of the medical map exercise and on the criteria for comparing the quality of the providers that are being developed and that will be the basis for contracting. In case of a surplus of providers of certain services in a region, the HIFM will contract only the necessary number of providers selected by a transparent procedure based on criteria of quality and price of the required services. Contracting by the HIFM will not take into consideration the legal

status of provider, which means that public and private providers will be treated equally in the process.

During 2007-2010, payments to outpatient and inpatient specialist providers will gradually be based on the type and volume of services provided and on fixed performance indicators, rather than on the existing infrastructure and historical budgets. Total disbursement will be limited by a budget cap. Legal provisions will be introduced to prevent budget overshoots and further creation of arrears by the health care institutions. In order to be able to manage the funds in a rational way, health institution managers will receive training in financial management and will be responsible for avoiding budget overshoots. The HIFM will carry out regular financial control (ex-ante and ex-post) and audit of their operations.

The contracts for hospital services will contain a payment method that covers all expenditures with a fixed budget cap.

For drugs on prescription from the positive list, the HIFM will contract the required number of pharmacies, and they will be reimbursed according to reference prices.

Primary health care will be paid by capitation for the health services actually provided, adjusted to the sex and age of the consumers of health services and the geographical location of the practice. The HIFM will continue to add financial incentives for high performance, on the basis of a high coverage of preventive activities, rational referral to higher level of health care and rational number of prescriptions, according to evidence-based medicine.

All contracts between the HIFM and health care providers will specify which data must be reported monthly or annually to the HIFM. Key performance indicators have also been established. Financial data and performance data will be subject of independent audit. All contracts will contain clear rules forbidding informal payments, including penalties for non-compliance.

The Republic and regional Institutes for Health Protection will negotiate annual contracts and budgets with the Ministry of Health, other ministries, local governments and the HIFM for the implementation of agreed programmes of public health activities. They will be free to perform market activities in their field that do not compromise their basic public health functions.

17. IMPROVEMENT OF THE PHARMACEUTICAL SERVICES

A national drug policy was adopted by the Government of the Republic of Macedonia in 2001. An important objective of this policy is that the whole population has access to a package of essential drugs of proven effectiveness and quality. These pharmaceuticals are part of the basic benefits package under the health insurance, with appropriate co-payments that are needed in order for the system to be financially sustainable.

A new positive list of essential drugs will be revised based on clinical protocols and guidelines (based on evidence-based medicine) and updated regularly. This list will determine reimbursement by the HIFM. Referent prices will be established for the drugs on the positive list, with generic name and appropriate form and dosage.

New draft Law on Drugs harmonized with the EU directives and legislation has been prepared. Rational prescribing of drugs will be improved by applying the formulary linked to clinical guidelines. The actual prescribing will be monitored by using information technology (electronic prescription form).

The functions of the Drugs Bureau will be strengthened and enlarged, transforming the Bureau into an autonomous Drugs Agency that has control over all phases of the registration, import and distribution of pharmaceuticals, and will inspect the implementation of Good Manufacturing Practice and Good Laboratory Practice in the national drug industry.

The concept of “pharmaceutical care” is not a dominant form of practice for most of the pharmacists in Macedonia. The transformation from commodity-based, mercantile operations into a clinical profession is very slow. It needs encouragement and setting appropriate Good Pharmacy Practice Guidelines containing national standards, which will meet professional-determined needs for pharmaceutical care. Therefore, delivery models of pharmacy services will be developed in four functional areas: a) outpatient prescription and inpatient drug order fulfilment; b) primary pharmaceutical care services; c) secondary and tertiary pharmaceutical care services; and d) non-patient care functions requiring pharmacists.

Standards will be established for the primary care pharmacy services, which ensure proper co-ordination and communication between health care and pharmaceutical care providers and the consumers of health services.

The following activities will be undertaken for the secondary and tertiary pharmacy services:

- * increase in the number of pharmacists in hospitals;
- * establishment of partnership (including doctors, nurses and pharmacists) in medication management and in medication advisory committees;
- * improvement of the role of the pharmacists in reporting adverse effects, in clinical studies, and in ethics committees;
- * improvement of the communication and co-ordination between pharmacies and/or pharmacists in hospitals and community pharmacists;
- * introduction of the obligation for public and private hospitals to employ a specialist in the field of clinical pharmacy and pharmaco-informatics;
- * establishment of a Centre for Pharmaco Vigilance, and improvement of the role of pharmacists and other health care workers in reporting adverse effects of pharmaceuticals.

18. PRIORITIES WITH REGARD TO THE IMPROVEMENT OF THE HEALTH INFORMATION SYSTEM

Target 19

The Republic of Macedonia should have established health information and communication systems that will provide for flow and exchange of information to support this strategy.

The health information system will play a significant role in the supply of information for creating health policy, decision-making, planning and funding of health care, thereby helping to improve the quality of health services, i.e. better health for the consumers. The establishment of an integrated health information system will be a priority for the next decade, and it will be established according to the recommendations included in the Strategy on the Development of an Integrated Health Information System (IHIS) in 2006.

The essential tool of the new IHIS will be integrated Information and Communication Technology (ICT) system, which, together with the electronic systems in the health care organizations, will enable communication, networking and integration of the health care organizations. The ICT system in the health sector will be developed as an integrated information system for the whole health sector.

The functional integration of health care information systems will be achieved with the standardisation of: data and data structures; data transaction processes; data security; and the architecture of information handling systems. The future national nomenclatures, laws and regulations will introduce electronic forms with a digital signature. Therefore, a legal and nomenclature framework will be developed for the IHIS, including the harmonization of the existing laws and by-laws; development of a new law for the IHIS; introduction of new international classifications for medical health statistics and records; as well as introduction of international standards for ICT as a necessary precondition for achieving e-health.

Short-term priorities of the Strategy on IHIS include: the completion of the information system in the Health Insurance Fund; the implementation of Hospital Information Systems; and development of unified registries (unified coding systems).

Mid-term priorities in the development of the integrated health information system (2008-2012) will include the implementation of ICT in primary health care providers, along with the introduction of compulsory electronic reporting to the HIFM and to the Institutes for Health Protection, and introduction of electronic health cards. Long-term priorities (until 2020) include the introduction of *Diagnosis Related Groups* and of electronic health records.

The activities for development of IHIS will be co-ordinated by the Ministry of Health, and the realization of the priorities will be achieved by providing financial resources and appropriate infrastructure for ICT.

19. PRIORITIES WITH REGARD TO THE MANAGEMENT OF THE HEALTH CARE REFORM

Target 20

Implementation of the provisions of this strategy for better health for all will engage individuals, groups and organisations throughout the public and private sectors, and civil society, in partnerships for health.

Target 21

The Republic of Macedonia will be implementing policies for “health for all” built in this strategy at country, regional and local levels, supported by appropriate institutional infrastructures, managerial processes and innovative leadership.

The overall objective of this strategy is to achieve better health and better health care of the population in the Republic of Macedonia by 2020.

In order to ensure a high level of health for the population and provision of high quality health care in a cost-effective way, the Ministry of Health will strengthen its capacities for strategic planning and policy making, resource allocation, development of regulations and their implementation, monitoring and evaluation, introduction of organisational procedures, and creation of institutional infrastructure.

The Ministry of Health will be modernized and reorganised on the basis of the recommendations of the functional analysis developed in 2004, with emphasis on the strengthening of the capacities and skills for management, assessment, control and oversight of the health system performance, as well as for effective intersectoral activities. An important priority will be the continued streamlining of health laws and regulations, harmonising them with the EU.

The Ministry of Health is the holder of the reform activities and ultimately responsible for the implementation of the health care reform, but with participation and responsibility of all health system stakeholders, especially with regard to management and assurance of quality health care. With the privatisation, the health service providers will gain more autonomy and responsibility, such as primary health care, dentist’s offices and pharmacies. Public institutions will also have greater autonomy and responsibility with regard to management, which will be achieved by way of management capacity building in all health care facilities, especially in hospitals and in financial management, while excluding partisan politics.

The Action Plan for the health strategy will provide for the accomplishment of the goals and objectives included therein. The Action Plan will include specific activities, a time schedule to reach the objectives, as well as indicators for monitoring and evaluation. The Ministry of Health will coordinate and evaluate the implementation of the health care reform.

The implementation of this strategy will involve all stakeholders of the health care sector that have participated in the design of the strategy, where they will be properly informed, mobilized and involved in the implementation of the strategy.

It is especially important to inform constantly and properly the public and the health care providers about the reform of the health care system. The cooperation with international organisations and national governmental and non-governmental organisations will contribute to successful implementation of the reform activities and of the strategy.

The influence of the consumers of health care will be strengthened by constantly informing them through public information campaigns, websites and printed materials, as well as by providing them with easily accessible, understandable and reliable information on health, health care, and health care reform. The consumers will be informed especially about those elements of the health care reform that concern them personally: the choice of a family doctor; the rights and duties of patients and providers; the entitlements of citizens under the health insurance; patient safety; and information on side-effects of drugs.

Patient satisfaction with various types of health services will be measured, and this will be an important indicator of the progress of reforms and of the achievement of a quality health care.

20. ANNEX A

21 TARGETS FOR “HEALTH FOR ALL IN THE 21ST CENTURY” - WHO

- 1 By the year 2020, the present gap in health status between member states of the European region should be reduced by at least one third.
- 2 By the year 2020, the health gap between socioeconomic groups within countries should be reduced by at least a fourth in all member states, by substantially improving the level of health of disadvantaged groups.
- 3 By the year 2020, all newborn babies, infants and pre-school children in the region should have better health, ensuring a healthy start in life.
- 4 By the year 2020, young people in the region should be healthier and better able to fulfil their roles in society.
- 5 By the year 2020, people over 65 years should have the opportunity of enjoying their full health potential and playing an active social role.
- 6 By the year 2020, people’s psychosocial wellbeing should be improved and better comprehensive services should be available to and accessible by people with mental health problems.
- 7 By the year 2020, the adverse health effects of communicable diseases should be substantially diminished through systematically applied programmes to eradicate, eliminate or control infectious diseases of public health importance.
- 8 By the year 2020, morbidity, disability and premature mortality due to major chronic diseases should be reduced to the lowest feasible levels throughout the region.
- 9 By the year 2020, there should be a significant and sustainable decrease in injuries, disability and death arising from accidents and violence in the region.
- 10 By the year 2015, people in the region should live in a safer physical environment, with exposure to contaminants hazardous to health not exceeding internationally agreed standards.
- 11 By the year 2015, people across society should have adopted healthier patterns of living.
- 12 By the year 2015, the adverse health effects from the consumption of addictive substances such as tobacco, alcohol and psychoactive drugs should have been significantly reduced in all member states.

- 13 By the year 2015, people in the region should have greater opportunities to live in healthy physical and social environments at home, at school, at the workplace and in the local community.
- 14 By the year 2020, all sectors should have recognised and accepted their responsibility for health.
- 15 By the year 2010, people in the region should have much better access to family- and community-oriented primary health care, supported by a flexible and responsive hospital system.
- 16 By the year 2010, member states should ensure that the management of the health sector, from population-based health programmes to individual patient care at the clinical level, is oriented towards health outcomes.
- 17 By the year 2010, member states should have sustainable financing and resource allocation mechanisms for health care systems based on the principles of equal access, cost-effectiveness, solidarity, and optimum quality.
- 18 By the year 2010, all member states should have ensured that health professionals and professionals in other sectors have acquired appropriate knowledge, attitudes and skills to protect and promote health.
- 19 By the year 2005, all member states should have health research, information and communication systems that better support the acquisition, effective utilisation, and dissemination of knowledge to support health for all.
- 20 By the year 2005, implementation of policies for health for all should engage individuals, groups and organisations throughout the public and private sectors, and civil society, in alliances and partnerships for health.
- 21 By the year 2010, all member states should have and be implementing policies for health for all at country, regional and local levels, supported by appropriate institutional infrastructures, managerial processes and innovative leadership.

21. ANNEX B

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