

## HiT summary

## The former Yugoslav Republic of Macedonia

### Government and recent political history

Seceded from the Yugoslav Federation in 1991, the former Yugoslav Republic of Macedonia has been a multi-party democracy since 1990.

### Population

Estimated 2 023 000. 66% of the population is classified as ethnic Macedonians, 23% as Albanians. 24% of the population is under the age of 15 years. Unemployment is the highest in the European Region, reaching 41.7% in 1997.

### Average life expectancy

70.4 years for men and 74.8 years for women.

### Leading causes of death

SDR diseases of the circulatory system. Ischaemic heart disease and cerebrovascular disease mortality has shown an increase since independence, as has cancer, but deaths from infectious diseases are down.

### Recent history of the health care system

Under the highly decentralized Yugoslavian health care system, 30 local municipalities owned and operated health care. This was replaced in 1991 by a more centralized system. The constitution states clearly the principle of universality of health care access.

**Fig. 1 Total health care expenditure as % of GDP, comparing the former Yugoslav Republic of Macedonia, selected countries, EU and CEE averages**



Source: WHO Regional Office for Europe health for all database

### Reform trends

Moving from the former disjointed system of municipality-funded health services to a social insurance funded model, the reforms aim to shift from a service dominated by secondary care to one led by primary care.

### Health expenditure and GDP

Total expenditure on health accounted for 5.6% of the GDP in 1993, but data are difficult to interpret given hyperinflation.

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## Overview

The health care system has undergone major changes both planned and unplanned. It has faced enormous challenges arising from the transition to independence, economic blockades, embargoes and a refugee crisis. Under these extreme circumstances it is difficult to evaluate the success of the reform process. Major inequities remain, geographical inequities are manifest with a lack of services in rural settings, and there are also financial inequalities, and an over-reliance on secondary care. Standard setting and performance assessment are difficult to implement. However, the current system offers scope to improve efficiency.

## Organizational structure of the health care system

The system is insurance-based and everyone is covered by the compulsory health insurance scheme for a basic health care package, on top of which out-of-pocket fees are paid.

- The Ministry of Health provides central health planning and has oversight of the national health care system. There is no regional health system: efforts have been concentrated on building a centralized structure and not decentralization.
- The Health Insurance Fund runs the compulsory health insurance system; this fund is independent and directly accountable to the parliament. It coordinates health insurance and contracts with health providers, dictates service specifications, and is indirectly responsible for the professional supervision of health care workers. It has 30 branch offices.
- The Institute of Health Protection has responsibility for preventive care through the institutes for public health.

- The Ministry of Defence owns military hospitals that provide services free to conscripts and their families, and it is also contracted for services by the Health Insurance Fund.
- Private institutions. There are no private hospitals in the former Yugoslav Republic of Macedonia, but private practice is permitted. There are over 1500 registered private health organizations, including dental practices, pharmacies, general medical practices, specialty practices and biochemical laboratories. More than 300 private institutions, for the most part medical practices, have contracts with the Health Insurance Fund.

The role of professionals and trade unions is still developing.

## Planning, regulation and management

The central functions of planning and regulation, while weak, are being strengthened. The insurance fund plays a part in this. Management, however, remains under-developed.

## Health care financing and expenditure

Over 95% of official health care finance is derived either from contributions channelled through the compulsory health insurance fund or from user charges. Of the remaining 5%, half is derived from the state budget, and the rest from other sources such as aid. 63% of fund incomes are from the contributions of insured individuals, with the rest from transfers from other state agencies such as the pension fund or the employment institute on behalf of pensioners or the unemployed.

The Ministry of Finance sets the budgets for the Ministry of Health's vertical

programmes, and examines and approves proposed budgets for the Health Insurance Fund.

Public revenues for the health sector fell by 40% from 1991 to 1995, due to a combination of factors including changes in accounting methods and capital investment as well as actual changes in expenditure. The health sector has received extensive humanitarian assistance.

### **Main system: Health insurance scheme**

The compulsory health insurance scheme covers everyone except stateless persons or social care recipients who are covered from state budgets.

People in work contribute 8.6% of pre-tax income. Employers keep detailed personnel records for the purpose of health insurance premiums collected through the Institute of Payment Operations. There is no employers' contribution except in key occupations deemed to carry additional risk of occupational disease or injury. In these instances, supplementary compulsory health insurance premiums are levied directly from employers or from the self-employed. Non-profit organizations contribute 0.5% of total salary cost, whereas for-profit organizations contribute 1.8% of total profits.

Farmers and the self-employed contribute 8.6% of the statutory minimum wage, pensioners contribute 14.7% of net pension.

The unwaged (the unemployed, disabled and war veterans) do not directly contribute to the fund; their contributions are provided by the appropriate statutory body such as the Pension Insurance Fund on the basis of 12.4% of a notional basic indicator, which is either 70% of the minimum wage or 65% of average earnings.

Out-of-pocket payments are very important.

### **Health care benefits and rationing**

The basic care package covered by the health insurance system includes periodic health checks, preventative health care including immunization, primary health care, emergency care, maternity care, some dental treatment and pharmaceutical products, inpatient care and the provision of salary during sickness or maternity leave. Some areas are financed directly from the state budget, such as maternal and child health, family planning, HIV/AIDS, blood donation, immunization and environmental health. The areas of care not in the benefits package include lodging and food in institutions for the elderly; pregnancy termination unless clinically indicated; issuance of medical certificates; and treatment for alcohol abuse.

### **Complementary sources of finance**

A system of co-payments has been in place since 1994 whereby fixed tariffs are levied from all patients including children. So, for example, patients are charged 70 denars for an ampoule of injected drugs, 120 denars a day for inpatient care, 4000 denars for breast surgery (average earnings are 10 000 denars per month.) There are also co-insurance payments, which involve a percentage rather than a fixed fee. Thus, patients pay 20% of the price of health services, accommodation and drugs for inpatient treatment. They also pay 20% of the price of hearing aids or dentures and 50% of the price of orthopaedic devices.

These payments have eliminated overuse of services, but have raised fewer funds than expected, contributing less than 5% of the revenues of health care providers. They also raise questions of equity. Certain occupational groups are required to make additional contributions to cover the risks of occupational disease or injury.

There are also informal payments the extent of which is difficult to assess. It is believed to be common for surgeons to levy further, informal payments from their patients. One

survey found that 45% of total expenditure on health was from private sources, another survey that the proportion of private household expenditure spent on health care rose from 4.2% to 5.8% between 1995 and 1999.

## Health care expenditure

Data on health care expenditure is impossible to interpret reliably in the absence of recent information, and in the context of near hyperinflation. The proportion of GDP recorded as spent in the formal health care system appears to be just under 5% but figures vary and the GDP figure also has to be treated with caution.

Nearly all health expenditure (98%) is reported to be in the public sector but this figure is an overestimate.

## Health care delivery system

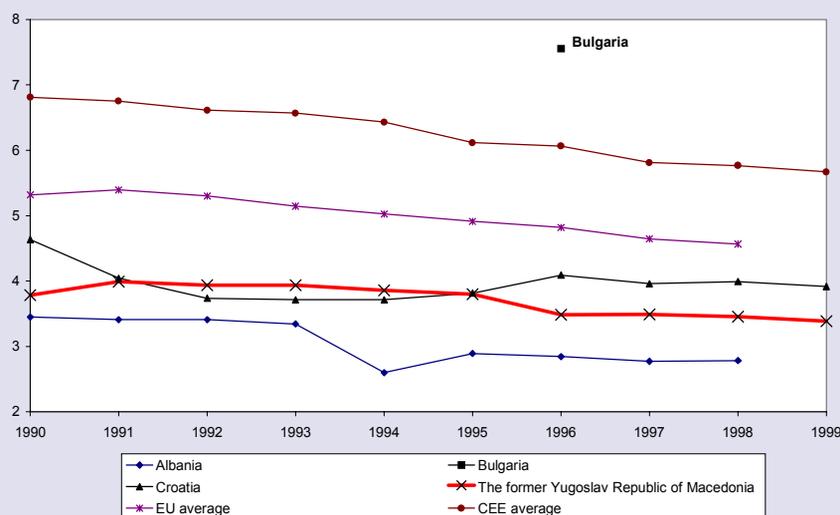
Health care is delivered largely by the public sector through relatively new single-purpose

facilities, although medical equipment and vehicle stock are often old and in a poor state of repair. There is a blurring of responsibilities between hospital services, ambulatory services and primary health care.

## Primary care

This varies from town to country, and is complex. Medical centres include primary health care and some ambulatory secondary care. There are five separate streams: general medicine; children's medicine; school medicine; women's medicine which provides general, gynaecological and obstetric services; and occupational medicine which provides general medicine for those in work as well as those with specific occupational problems. They all have their own specialist physicians and so each member of the family may go to a different doctor. Over 1200 separate facilities deliver primary health care, of which 294 are rural units. Provision is relatively poor in country areas.

**Fig. 2 Hospital beds in acute hospitals per 1000 population, the former Yugoslav Republic of Macedonia, selected countries, EU and CEE average**



Source: WHO Regional Office for Europe health for all database

Nearly 60% of physicians are employed in primary care. The number of patients per physician varies enormously, however, between 653 (list size of children 0–6) and 8478 (women). The physician’s job is to provide basic care and act as the gatekeeper to further services if the health insurance fund is paying. A selected physician scheme was introduced in 1997, but abandoned in late 1998. An average of 3 outpatient contacts per patient per year is recorded, one of the lowest in Europe if the data is valid.

Primary health care is also provided in 209 private general practices in urban areas, and 56 private general practices in rural areas.

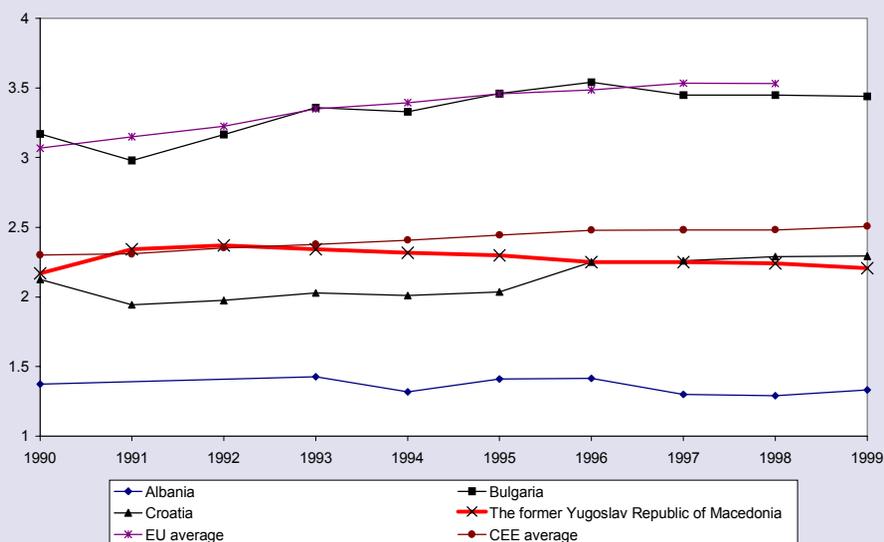
### Public health services

The Institute of Health Protection is the central tertiary centre for public health, overseeing 10 regional institutes of health protection with their 21 branch offices across the country which

provide technical services such as microbiology, hygiene, epidemiology and social medicine. Each institute employs over 100 staff.

Ongoing programmes include general check-ups of children and students, mother and child health care, blood donation, TB prevention, AIDS protection, screening for brucellosis, and immunization, which is compulsory. Reported coverage of immunization for TB, diphtheria, pertussis, polio, tetanus, measles mumps and rubella, is historically of the order of 92–98%. There are no national programmes of mammography or cervical cytology screening. There is also a form of health visiting termed polyvalent patronage, which is a family-based service which has expanded from working with mothers and infants to include preventive measures and interventions on diseases such as TB, cancer and heart disease.

Fig. 3. Physicians per 100 population, the former Yugoslav Republic of Macedonia, selected countries, EU and CEE averages



Source: WHO Regional Office for Europe health for all database

## Secondary care

Outpatient assessment and treatment takes place in medical centres which also include polyclinics and general hospital clinics and come under the managerial control of a director, usually a physician and an appointee of the Ministry of Health. These centres provide specialist treatment, diagnostic services and rehabilitation services, and some primary health care. 328 facilities provide this specialty-consultative care, employing 580 doctors of which 89.3% are specialists. Access to inpatient hospital is via referral from primary or secondary care. Accident and emergency services are not part of hospitals, but are only provided in a primary care setting. The only specialist accident and emergency unit is at the clinical centre in Skopje. Acute psychiatric care is provided in most general hospitals.

There are 5.2 hospital beds per 1000 inhabitants, which is lower than most of the countries of central and eastern Europe but the population is relatively young. Average length of stay remains long at 13.4 days and bed occupancy low at 68.5%, but this has improved over the last few years. 16 general hospitals provide at least 5 specialties: internal medicine, paediatrics, obstetrics and gynaecology and anaesthesiology. Specialized hospital care is also delivered in 6 specialized hospitals and 7 rehabilitation centres. There the average length of stay is 72.3 days, with bed occupancy at 77.8%. The 3 specialist psychiatric hospitals have an average length of stay of over 300 days.

There is a legacy of service provision based not on population need and service usage, but on regions offering every specialty possible. Information on excess and inappropriate provision is now being collected centrally, but rationalization programmes are not yet set up. The medical directors lack management skills, and have to cope with line item budgeting, few service frameworks, few formularies and few guidelines.

In some instances, patients have to cover some of their own costs. In specialist geriatric units, patients are required to pay for their own “hotel” charges (up to 10 000 denars per month) In longstay neuropsychiatric institutions, medical costs are reimbursed by the health insurance fund.

## Tertiary care

Tertiary care institutions are all in the capital Skopje. They all provide research and teaching functions and secondary care. There are plans to provide more capacity in tertiary care. A new cardiothoracic surgery unit has been developed in a military hospital which also takes referrals from citizens via the health insurance fund.

The Clinical Centre in Skopje is at the top of the pyramid, with 18 clinics and institutes and over 2000 beds. More than half its patients are from outside Skopje. Its occupancy rate is 74.5%, average length of stay 12.6 days.

## Social care

This sector is poorly developed. Older people are either cared for by their family, or in long-stay beds in hospital for which hotel charges are levied. There are no nursing homes or old peoples’ homes. Most people with learning disabilities or severe physical handicap live in institutions and, as “social cases”, receive additional benefits.

## Human resources

There is a legacy of a large health care workforce, and target intakes for medicine, dentistry and pharmacology have all been reduced by 20% since 1998, although actual intakes have not reduced accordingly. About 4500 doctors are in public sector employment and 500 in the private sector. Medical school intakes have been capped. The ratio for physicians to population is over 2 per 1000,

but this does not take into account the 10 000 unemployed doctors. The numbers of intermediate and advanced health care workers in primary care however is below national targets.

Doctors are accountable to chiefs-of-staff in health care institutions, but clinical accountability is a matter for the chamber of physicians, who exercise few sanctions. Continuing professional development is rudimentary.

## **Pharmaceuticals**

Almost 40 million denars was spent on pharmaceuticals in 1996, a quarter of which were produced domestically and the rest imported, mostly from the former Yugoslav republics. The distribution system was privatized in 1991 and replaced with a system of licensing supervised by the Ministry of Health. This has led to increased competition in the pharmaceutical sector, with the large public producers moving into the private sector: the biggest producer is now part-privatized with less than 50% still state-owned. There are new private wholesalers and private pharmacies. Rebates and discounting of prices is common. The national positive list was introduced in 1999 but only for primary care.

In rural areas the pharmacy stations are not staffed by pharmacists but with pharmacy technicians. Public pharmacies contract with the health insurance fund and dispense drugs from the positive list. Drugs not on the list are often available without a prescription from the doctor. A system of prescription co-insurance means that there are no central reference prices for fund reimbursement. Patients can recoup from the fund some of the costs of particularly expensive drugs which are on the positive list.

Since 1997, a limited list of drugs have had their price set by tender, but tender prices are very high by international standards. Discounts of up to 40% are given to hospitals or public pharmacies. The number of prescriptions issued

has declined since 1991 but the decrease in expenditure is less steep, perhaps reflecting more expensive treatments. There are no incentives for prescribing lower cost pharmaceuticals and prescribing guidelines are not common.

There is no central pharmaceutical inspectorate. Inspection of the public sector pharmacies is rare. Although the private pharmacies are assessed for initial licensing, they are not re-assessed.

## **Investing in technology**

It is unclear whether there is an overall investment policy in health technology, or what planning takes place. Requests for new equipment are channelled through the ministry and the fund, or may be purchased with private revenue. Equipment is maintained through contracts with the suppliers, which are generally multinational corporations. The national health and hospital inspectorate inspect and maintain more basic equipment.

## **Financial resource allocation**

The major revenue source is the Health Insurance Fund. The reimbursement system adopted, based on the German points system, was complex and was abandoned by the public sector in favour of funding based on historical activity and inputs such as staff and bed numbers. However, the public sector continues to submit inflated invoices. The points system is retained for private sector providers.

## **Payment of hospitals**

Line item budgeting persists for ambulatory care institutions and public hospitals, which may militate against flexibility in funding allocation. There are no fixed population/needs

formulae for capital investment. Concern has been expressed that invoices are not checked for logic or clinical appropriateness.

## Payment of professionals

Health care professionals are paid a salary on scales negotiated by the health care workers union and the Ministry of Health. Fully-trained physicians are paid between 12 000 and 18 000 denars a month. When it is considered that pensioners are paid 10 000 monthly, there is a clear incentive to seek alternative sources of income.

## Health care reforms

Much of the inherited health care system serves to militate against service efficiency and effectiveness. There is an absence of incentives and a shortage of skills. The priority areas that have been identified for reform are quality of care, service efficiency, cost containment and equity of provision. The overall strategy now is to develop fiscal incentives linked with managerial autonomy and to strengthen central planning.

The Health Insurance Law was introduced in 2000. It revises the basic benefits package, the contributions system to the insurance fund, and the nature of user fees. User fees will move

to co-payment with fixed charging scales from co-insurance with multiple exemption categories, and there will be an annual ceiling levied on each patient in secondary care. The intention is to shift to a primary care led service, from one dominated by secondary care. The selected physician scheme is to be reintroduced. Rural primary care units are being refurbished as part of a World Bank project. Recruitment and incentive programmes aim to attract physicians into primary care. Continuing medical education is developing also with World Bank support, and a project to improve the perinatal service. Further rational prescribing measures are planned for pharmaceuticals such as hospital formularies and generic substitution. Prescription co-insurance will be revised towards fixed co-payment, and the criteria for exemption have been revised.

## Conclusions

Health reform in the former Yugoslav Republic of Macedonia has had a few successes, in spite of the difficult context. It is hoped that the improving economic climate may provide an environment in which the remaining significant changes needed can be carried forward but the scale of the task ahead should not be underestimated.

**Table 1. Inpatient utilization and performance in acute hospitals in the WHO European Region, 1999 or latest available year**

Country	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days	Occupancy rate (%)
Albania	2.8 <sup>a</sup>	—	—	—
Bulgaria	7.6 <sup>c</sup>	14.8 <sup>c</sup>	10.7 <sup>c</sup>	64.1 <sup>c</sup>
Croatia	3.9	13.2	9.4	87.2
The former Yugoslav Republic of Macedonia	3.4	8.8	8.8	63.0
EU average	4.6 <sup>a</sup>	18.75	8.32 <sup>a</sup>	77.1 <sup>b</sup>
CEE average	5.7	18.66	8.38	72.4

Source: WHO Regional Office for Europe health for all database.

Note: <sup>a</sup> 1998, <sup>b</sup> 1997, <sup>c</sup> 1996, <sup>d</sup> 1995, <sup>e</sup> 1994, <sup>f</sup> 1993, <sup>g</sup> 1992.

## HiT summary

## The former Yugoslav Republic of Macedonia

This summary is based on the Health Care Systems in Transition profile (HiT) on the former Yugoslav Republic of Macedonia, 2000, which was prepared by Steve Hajioff (European Centre on the Health of Societies in Transition) based upon an earlier draft by Gordana Pecelj (International Project Unit of the World Bank, Ministry of Health, Skopje) and Fimka Tozija (International Project Unit, Skopje). The full text of the HiT can be found in [www.observatory.dk](http://www.observatory.dk).

The Health Care Systems in Transition (HiT) profiles are country-based reports that provide an analytical description of each health care system and of reform initiatives in progress or under development. The HiTs are a key element that underpins the work of the European Observatory on Health Care Systems.

The Observatory is a unique undertaking that brings together WHO Regional Office for Europe, the Governments of Greece, Norway and Spain, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. This partnership supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of the dynamics of health care systems in Europe.