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**PROJECT PERFORMANCE ASSESSMENT REPORT  
FORMER YUGOSLAV REPUBLIC OF MACEDONIA  
HEALTH SECTOR MANAGEMENT PROJECT  
(P086670)**

**September 25, 2013**

**IEG Public Sector Evaluation**  
*Independent Evaluation Group*

## Currency Equivalents (annual averages)

*Currency Unit = Macedonian Dinar*

2003	US\$1.00	MKD54.32
2004	US\$1.00	MKD49.41
2005	US\$1.00	MKD49.28
2006	US\$1.00	MKD48.80
2007	US\$1.00	MKD44.72
2008	US\$1.00	MKD41.86
2009	US\$1.00	MKD44.10
2010	US\$1.00	MKD46.48

## Abbreviations and Acronyms

CPS	Country Partnership Strategy
DfID	Department for International Development
DRG	Diagnosis-related group
EU	European Union
HIF	Health Insurance Fund
HSMP	Health Sector Management Project
HSTP	Health Sector Transition Project
ICB	International competitive bidding
ICR	Implementation Completion and Results Report
IDF	Institutional Development Fund
IEG	Independent Evaluation Group
IHIS	Integrated health information system
IMF	International Monetary Fund
IT	Information technology
M&E	Monitoring and Evaluation
MOH	Ministry of Health
NGO	Non-Governmental Organization
NPV	Net present value
PAD	Project Appraisal Document
PAU	Policy Analysis Unit
PCU	Project Coordination Unit
PDPL	Programmatic Development Policy Loan
PPAR	Project Performance Assessment Report
PSMAL	Public Sector Management Adjustment Loan
TTL	Task Team Leader

## Fiscal Year

Government: January 1 – December 31

Director-General, Independent Evaluation	:	Ms. Caroline Heider
Director, IEG Public Sector Evaluation	:	Mr. Emmanuel Jimenez
Manager, IEG Public Sector Evaluation	:	Mr. Mark Sundberg
Task Manager	:	Ms. Susan Ann Caceres

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<p>This report was prepared by Judyth L. Twigg, who assessed the project in June of 2012. The report was peer reviewed by Bjorn Ekman and panel reviewed by Robert Lacey. Viktoriya Yevsyeyeva and Richard Kraus provided administrative support.</p>
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## Principal Ratings

	ICR*	ICR Review*	PPAR
Outcome	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Risk to Development Outcome	Moderate	Moderate	Moderate
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Borrower Performance	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory

\* The Implementation Completion and Results (ICR) report is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEG product that seeks to independently verify the findings of the ICR.

## Key Staff Responsible

Project	Task Manager/Leader	Sector Manager	Country Director
Appraisal	Jan Bultman	Armin H. Fidler	Orsalia Kalantzopoulos
Completion	Nedim Jaganjac	Abdo Yazbeck	Jane Armitage

**IEG Mission: Improving World Bank Group development results through excellence in independent evaluation.**

### **About this Report**

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20-25 percent of the Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, and interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate.

Each PPAR is subject to internal IEG peer review, Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank department. The PPAR is also sent to the borrower for review. IEG incorporates both Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

### **About the IEG Rating System for Public Sector Evaluations**

IEG's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: <http://ieg.worldbankgroup.org>).

**Outcome:** The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension generally is not applied to adjustment operations. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Risk to Development Outcome:** The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency(ies) performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

## Preface

This is the Project Performance Assessment Report (PPAR) for the Health Sector Management Project in the Former Yugoslav Republic of Macedonia.

A Loan (IBRD-47330-MK) was approved on May 13, 2004 for an amount of US\$ 10 million equivalent. The project closed on December 31, 2010, eighteen months after the scheduled closure date, primarily to allow additional time for the procurement of computer hardware to support the development of an integrated health management information system. The project was restructured on June 11, 2009, to extend the closing date by one year to June 30, 2010, and an amendment to the Loan Agreement on June 8, 2010 further extended the closing date by another six months. The project's objectives were not revised.

This report presents findings from the project based on review of project documents, the Implementation Completion and Results Report, aides-memoire and supervision reports, and other relevant material. A mission to Macedonia was undertaken by Judyth Twigg (consultant) in June 2012, during which interviews were conducted with government officials, Bank staff in Washington and Macedonia, health sector personnel, beneficiaries, and other involved persons. IEG gratefully acknowledges all those who made time for interviews and provided documents and information, and especially expresses its thanks to Jasminka-Sopova, who provided exemplary logistical and administrative support in Skopje.

The report aims, first, to serve an accountability purpose by evaluating whether the operation achieved its intended outcome. Second, the report draws lessons to inform future health sector reform projects. Third, the assessment will contribute to a forthcoming IEG evaluation of the World Bank Group's activities related to health financing reform.

Following standard IEG procedures, the Former Yugoslav Republic of Macedonia were invited to comment on the draft PPAR. No comments were received.



## Summary

This Project Performance Assessment Report reviews the experience and lessons from the Health Sector Management Project (2004-2010) in the Former Yugoslav Republic of Macedonia. The project supported reforms aimed at increasing capacity and efficiency across the system of financing and delivery of health care.

At appraisal, Macedonia was recovering from brief but intense armed conflict in 2001 between ethnic insurgents and government security forces. The fighting ended with an agreement that satisfied local communities and protected minority rights. Given the relatively short time to build institutions, a number of processes are still evolving in this young democracy. There has been frequent change of governments, including high turnover of health ministers. European Union (EU) accession is the anchor of reform in nearly every area of government and public services.

Macedonia's health status is similar to other countries in southeastern Europe, but lags behind EU countries. The same is true for health spending. A single payer, the Health Insurance Fund (HIF), contracts with public and private providers to deliver health services. A comprehensive benefits package is universally covered through social insurance. Prior to the project, the financial management capacity of the HIF was weak, and provider payment mechanisms, largely fee-for-service, were major cost drivers and sources of inefficiency. Hospitals were overused and overstaffed, and primary care was underdeveloped. The benefits package was generous compared to available HIF revenues and contributed to problems of implicit rationing and informal payments.

The objectives of the Health Sector Management Project, financed by an International Bank for Reconstruction and Development loan of US\$ 10 million equivalent, were to “upgrade the Ministry of Health’s (MOH’s) and Health Insurance Fund’s capacity to formulate and effectively implement health policies, and to develop and implement an efficient scheme of restructuring of hospital services, with an emphasis on developing day-care services and shifting to primary care.” These objectives were to be achieved through activities intended to shift the MOH from day-to-day administrative functions to priority setting, policy making, and monitoring and evaluation, and to build the HIF’s capacity in the core functions of revenue collection, Fund management, and purchasing. Attention was also paid to improvements in service delivery through the introduction of new management models, development of skill sets necessary to implement new contracting schemes, and some improvements in infrastructure of health care facilities through a grants program.

Concurrently with the project, the Bank financed a series of three Programmatic Development Policy Loans in 2005-2006, 2007, and 2008, and another Development Policy Loan Series from 2009-2011. One of the main objectives of the first PDPL series was to improve the financial management, transparency, and governance of the HIF and public health institutions, including procurement of medicines. The 2009-2011 operation included reforms to create a treasury function within the HIF to enhance financial management and control in the health sector. The HSMP is viewed by stakeholders as an example of sector investments complementing a broader reform agenda supported by adjustment operations,

with the latter acting as an incentive for the government to implement the overall health strategy. In addition, parallel technical assistance during the project was provided through Dutch Trust Funds. The project spent a relatively small amount of money compared with these other interventions, but it is widely acknowledged that the project's investments realized important synergies with the policy loans, and that overall the Bank has been an important impetus for health reform before, during, and after the project period.

The project's outcome was moderately satisfactory. Its objectives were substantially relevant to country conditions at the time of appraisal, and to the Bank's current Country Partnership Strategy. Project design was also substantially relevant, with a solid results chain logically connecting development objectives to expected outcomes and project activities. The MOH's and HIF's institutional capacities were only modestly improved, but the second objective to restructure hospital services was substantially achieved. Economic analyses show that the project's net benefits far outweighed its costs in the areas of revenue collection and expenditure management, indicating substantial efficiency. The risk to development outcome is moderate, with financial risk stemming from continuing arrears among health providers and the HIF, and political risk linked to uncertainty about commitment to reform in a fluctuating political environment. The Bank's performance was moderately satisfactory. Project design was strong, but it did not wholly anticipate potential difficulties with some political and institutional arrangements that later proved problematic. Intensive supervision was required, particularly to guide a difficult process of procurement, testing, and delivery of information technology equipment prior to closing. Government performance was also moderately satisfactory. HIF commitment and capacity, in particular, improved dramatically during implementation, and the Project Coordination Unit's component coordinators assumed strong and effective responsibility for implementation and continuity.

The preparation and implementation experience of the project yields the following lessons:

**Close coordination of policy lending and investment lending can greatly facilitate achievement of reforms.** In this case, health reforms supported by the project and health aspects of the adjustment operations were supervised closely by the same health team, ensuring that policy dialogue with the government was consistent and linked to the overall macro-level dialogue between the government and the Bank. Importantly, although the policy lending included reforms across several sectors, there was a sustained sector focus on health that was central to achieving important synergies with the investment operations.

**Political obstacles can be overcome with effective planning and consultation – but will be insurmountable otherwise.** An appropriate political enabling environment and incentive structure, achieved through careful political economy analysis and planning, were crucial for the success of reforms supporting family medicine and diagnosis-related groups. Hospital rationalization and reform of the basic benefits package, however, have encountered difficulties in the face of political obstacles. Furthermore, where possible, sheltering project implementation from politics allows focus on implementation and appropriate attention to desired outcomes. In this project, the appointment of the deputy prime minister as project coordinator resulted in frequent personnel turnover (as ministers changed) and resultant delays in project activities. The need for independent, stable project management trumps any

benefits that may accrue from presumed proximity to the health minister. The project manager should be chosen by agreement between the Bank and the MOH as a bridge person, someone with political access but who is not reporting and subject to the MOH on a daily basis.

**Information technology (IT) components of health sector reform frequently encounter delays, whose risk can be mitigated through careful planning and flexibility.** IT components should begin implementation as soon as possible, so that the technology keeps pace with the other project elements it is supporting, and it should be sufficiently flexible to adapt to projects as they evolve. Ideally, Bank teams should directly incorporate IT experts to prevent delays and inefficiencies.

**Qualified regional experts can be extremely effective as consultants and trainers.** Family medicine and other experts from Slovenia and other former Yugoslav countries, with their in-depth local knowledge, provided a valuable complement to Western subject-matter experts. These consultants also contributed important demonstration effects of successful reform in other parts of the region.

Caroline Heider  
Director-General  
Evaluation



## 1. Background and Context

1.1 The Former Yugoslav Republic (FYR) of Macedonia, which gained independence in 1991, is a landlocked country of around two million people. Ethnically diverse, it contains about 65 percent Macedonians, 25 percent Albanians, 4 percent Turks, and nearly 3 percent Roma. The country remained largely peaceful during the wars following the dissolution of Yugoslavia in the 1990s. Conflict between extreme ethnic Albanian armed groups and FYR Macedonian security forces broke out in March 2001, but proactive international intervention helped end the fighting after five months with both sides agreeing to terms under what has become known as the Ohrid Framework Agreement. The main elements of this Agreement provided for greater devolution of political authority to local communities, equitable representation of minorities in public administration, and mechanisms to protect minorities' interests in the legislative process (World Bank 2010). Given the relatively short time to build institutions, a number of processes are still evolving in this young democracy. Since independence, Macedonia has seen frequent changes of prime minister and many different compositions of government, including high turnover of health ministers. European Union (EU) accession continues to be highly popular and desirable, remaining the anchor of reform in nearly every area of government and public services.

1.2 The health status of Macedonia's population is similar to the other countries of southeastern Europe, but lags behind European Union countries. Overall, health indicators have steadily improved since independence. Life expectancy at birth, for example, has increased from 72 years in 1991 to 74.8 years in 2011, although it remains five years lower than the EU-27 average of 79.7 in 2011. The disease prevalence pattern is very similar to that of other EU countries, with non-communicable disease the most prominent cause of morbidity and mortality in the country (World Bank 2009c). Population aging is becoming evident, with the segment of the population over age 65 increasing from 10 percent in 2000 to 12 percent in 2011 (World Development Indicators).

1.3 Uptake of perinatal and post-natal interventions, particularly immunization coverage, is high. Care by trained staff is almost universal, with 98.8 percent of women in 2010 receiving care at least once during pregnancy and 99.8 percent of births involving a skilled attendant (World Development Indicators). Despite a near halving of infant mortality between 2000 and 2011 (from 14.3 to 8.7/1,000) due to a number of effective policy interventions, infant and perinatal mortality remain persistently high, correlating with poverty, education level of the mother, residence in a rural area, low service utilization, and ethnicity (with limited access among the Roma population) (World Bank 2009c). Data from 2005 indicate that about 17 percent of Roma women delivered their babies with the help only of a family member or friend; only about 16 percent of Roma infants were correctly fed; and about 25 percent of Roma infants were diagnosed with anemia due to substitution of less valuable nutrition for breast feeding (World Bank 2009c).

1.4 After the Second World War and the establishment of the Socialist Federal Republic of Yugoslavia, a highly decentralized health system was put in place, with responsibility for the provision of health care set at the municipal level. Accordingly, 30 municipalities owned and operated health facilities offering care at the primary, secondary, and tertiary levels

(Center for Research and Policy Making 2006). This system led to significant oversupply and duplication of services, and it did not promote the functional separation of the different levels of care. Financing was, for the most part, local, with central coordination only for projects requiring large-scale capital investments (Gjorgjev 2006). Owing to the strong independence of the municipalities with regard to both decision-making and financial management, the influence of the central government on the overall development of health care at the local level was minor.

1.5 At independence, Macedonia inherited from Yugoslavia a large and well-established health care system with good geographic and financial accessibility, health insurance covering nearly the entire population, educated staff, good control of infectious disease, and almost full coverage of the population with a national immunization program (Kjosev and Nedanovski 2008). An August 1991 Law on Health Care established the organizational structure of the system, with the Ministry of Health (MOH) and the government in charge of health policy formulation and implementation, system operation, and stewardship, the Health Insurance Fund (HIF, established in 2000) responsible for the collection and management of funds, and health care institutions responsible for service delivery. The Ministries of Health and Finance rotate chairmanship of an HIF Board of Directors. Doctors', dentists' and pharmacists' chambers are responsible for licensing health professionals, and medical associations are responsible for drawing up clinical guidelines (Gjorgjev 2006).

1.6 There is a purchaser-provider split in the system, with the single payer, the HIF, contracting with public and private providers to deliver health services. Reflecting the comprehensive nature of the benefits package financed through social insurance, there is little scope for voluntary health insurance despite provisions in the Health Insurance Law making it possible (World Bank 2007). The HIF pools health insurance contributions from the payroll, transfers from the central budget, and (since 2003) co-payments, giving providers little incentive to collect co-payments and limiting their impact on the behavior of consumers and providers. The HIF is responsible for 90 percent of government health expenditures. Health insurance contributions are paid at a statutory rate of 7.5 percent of gross wage. Financial management capacity within the HIF was weak during its first decade, with payments not matching invoices, improper write-offs, and poor accounting and recording of transactions. Provider payment mechanisms have been major cost drivers in the system. In 2004, a transition was made from a fee-for-service model to one that bases hospital budgets on the average needs of the preceding three years combined with projections of types and volumes of services. However, effective incentives for efficiency remained scarce, as have cost-effective models of replacing inpatient care with appropriate outpatient alternatives (day surgeries, etc.). The benefits package is generous compared to available HIF revenues and has contributed to problems of implicit rationing and informal payments (Kjosev and Nedanovski 2008).

1.7 Health care is provided through an extensive network of health care organizations, on three levels: primary, secondary, and tertiary. Health care institutions cover the country's territory relatively evenly, making it possible for around 90 percent of the population to access health services in less than 30 minutes (Kjosev and Nedanovski 2008). Hospital health care is delivered by 67 public hospitals, specialized hospitals, institutes, and specialized departments (clinics) in the Skopje Clinical Center, as well as by four private

hospitals. There is an outflow of qualified medical personnel from public to private institutions (WHO 2011); if a private facility is not contracted with the HIF, costs for users are significant.

1.8 While coverage is extensive, health care services have been characterized by overprovision, inefficiency, and duplication of services, capacity, and equipment, largely due to the legacy of the highly decentralized Yugoslav system. There has been over-production and under-utilization of personnel, over-employment in hospitals, obsolete equipment, lack of medicines, and a general focus on hospital-based care rather than primary and preventive services. Some tertiary-level institutions also provide secondary care, and the system has not implemented the necessary regulatory framework to ensure proper gatekeeping and referral practices.

1.9 There has been an oversupply of medical personnel, especially in the hospital sector, contributing to high fixed costs. Overstaffing reflects generous norms under previous systems, targeting one physician per 1,000 inhabitants. The sector has had difficulty employing all qualified personnel, resulting in unemployment among doctors and nurses (European Commission 2007). Health facilities still have flexibility in hiring and firing, and labor unions are strong, contributing to high fixed costs and limited opportunity for hospital managers to influence their input mix. Labor rigidities have been one of the key obstacles to introducing incentive-based payment systems at the hospital level (World Bank 2007).

1.10 Quality of care is widely perceived to be low, with wages and salaries absorbing most of the health budget, and few systemic incentives to focus on treatment outcomes (European Commission 2007). A 1997 study of the quality of clinical care in the United States and Macedonia showed wide variance among Macedonian physicians, but with some physicians in Macedonia performing at a standard comparable to that of their American counterparts (Peabody 2004). However, a 2005 survey of Macedonian primary care physicians and patients found the physicians inclined to refer patients to a higher level of care due to a deficit of diagnostic tools, poor conditions in their facilities, compliance with patients' requests for referral, and their own general perceptions that better treatment is available at the secondary or tertiary level (Center for Research and Policy Making 2006). Furthermore, most primary care physicians did not understand why there should be an effort to treat patients at their level rather than referred elsewhere, and fully one-third of specialists viewed primary care only as a referral point. Only 29 percent of patients in this study expected effective medical advice or therapy to be received at the primary care level.

1.11 Total health expenditure as a percentage of GDP was 6.8 percent in 2002, rising to 7.1 percent in 2011. This represents a significantly lower figure than that of most of the other ex-Yugoslav countries and the EU: the EU-27 average in 2010 was 9.0 percent, and Slovenia spent 9.4 percent, Serbia 10.4 percent, Bosnia-Herzegovina 11.1 percent, and Croatia 7.8 percent. Average spending per capita on health care was \$317 in 2011. Public spending on health care represents 4.7 percent of GDP, compared to 5 percent in new EU member states. Out-of-pocket payments, both formal and informal, have decreased from about 43 percent of total health spending in 2000 to about 36 percent in 2011 (World Development Indicators).

1.12 High unemployment and contribution evasion, together with relatively low contribution rates, have made it necessary for the HIF to find additional sources of revenue. These have included general budget transfers and out-of-pocket payments (World Bank 2007). Formal co-payments are made by insured people for the use of health services and drugs at all levels of care, with a list specifying the services and drugs concerned (Donev 1999). The maximum co-pay is set at 20 percent of the total cost of the service or drug, in inverse proportion to the price (with the co-pay for more expensive services set at a lower percentage of the cost, and vice versa) (Gjorgjev 2006). Lower co-pays, special conditions, and exemptions apply for those with low income, children and youth, and pensioners. Medical exams by a general practitioner, some other preventive programs, and emergency services are exempt. The low effective level of official co-payments (averaging about one-half of statutory requirements) -- unsurprising given that health institutions have little incentive to collect these payments and hand them over to the HIF -- has limited their effectiveness in curbing demand for health services and is bringing little revenue to the HIF. Revenues from co-payments amount to 3-4 percent of HIF revenues, compared with 7-10 percent in most West European countries (World Bank 2007).

1.13 Beginning in the mid-1990s, rising costs and consumer expectations, the availability of new drugs and technologies, and insufficient volumes of revenue from the collection of contributions led to the accumulation of significant deficits in the HIF. Payments to providers were made against costs of inputs (wages, consumables, utilities) rather than services provided, with no incentives for efficiency and quality of care. On the input side, the shift to dependence on payroll taxes left the health system vulnerable to the subsequent shrinking of formal sector employment. Deficits therefore stemmed from a guaranteed package of care more comprehensive than the country could afford; excessive numbers of doctors, dentists, and support staff; high prices and little volume control over prescription drugs; and an inefficient and fragmented network of health institutions. By 1998, the shortfall in the HIF was equivalent to 19 percent of revenues (World Bank 2002). In 2004, the HIF was 84 million Euros in arrears, with 78 percent of that attributable to debts owed to suppliers of drugs, medical devices, and consumables. At least a share of rising health care costs was shifted to patients in the form of increased out-of-pocket payments (World Bank 2002).

1.14 In 2004, a new budgeting system for hospitals was introduced, basing payments on funding for the preceding three years as well as projected types and volumes of services. The new payment mechanism was intended to stop the growth of hospital debt and generate performance accountability by linking payment to services actually provided within a global budgeting framework. However, efficiency gains in individual health care institutions were hampered by the lack of empowerment of facilities to provide financial incentives to staff (related to quality or quantity of care provided), or to make human resource planning decisions. As a result, there were still no financial incentives for individual physicians to deliver a greater volume of work, or to deliver more efficient or better quality services. In addition, approaches to, and examples of, more cost-effective means of ambulatory care delivery at the secondary care level, such as day surgery, day care for the elderly and chronically ill, rehabilitation programs, and the like, were scarce. There was also underinvestment in technologies to support some of the more cost-effective treatment regimes, such as minimally invasive surgery (Gjorgjev 2006).

1.15 The Bank's involvement in the Macedonian health sector began with the Health Sector Transition Project (HSTP, US\$ 17.1 million, 1996-2002), whose objectives were: (i) to improve the health of the population by enhancing the quality of basic health services; and (ii) to support an initial phase of policy reforms designed to increase cost-effectiveness, fiscal sustainability, and patient choice within the health system. Its components included activities to build capacity for policy making and health system management, to strengthen primary health care and health promotion with a focus on rural areas, and to create a more competitive pharmaceutical market to help reduce the cost of essential drugs (World Bank 2003). The preparation and implementation experience of the HSTP offered key lessons about the need for realistic assessment of the political economy environment for project implementation and the challenges inherent in investments in complex technical systems.

## 2. Objectives, Design, and Relevance

2.1 **Objectives.** The objectives of the Health Sector Management Project (HSMP) were to assist the Borrower to: (i) upgrade the Ministry of Health's (MOH's) and Health Insurance Fund's (HIF's) capacity to formulate and effectively implement health policies, health insurance, financial management, and contracting of providers; and (ii) develop and implement an efficient scheme of restructuring of hospital services, with emphasis on developing day-care services and shifting to primary care.

2.2 **Relevance of objectives is rated Substantial.** At the time of appraisal, the Government was committed to implementing reforms to facilitate economic growth, poverty reduction, and social stability. Quality of health services was perceived to be poor, particularly for primary care and in rural areas. Furthermore, revenue shortfalls and poor expenditure management had contributed to persistent cash deficits in the HIF. Inadequate provider payment systems that reimbursed based on inputs were driving up costs, and the benefits package was too generous in relation to HIF revenues. A functional review of the MOH prior to appraisal showed that there was an urgent need to realign its roles and functions toward the core functions of policy formulation and implementation, priority setting, monitoring health system performance, and coordination.

2.3 Since the Health Insurance Fund became independent of the Ministry of Health in 2000, there had been fragmentation of positions between the two agencies, duplication of effort (including funding of some vertical health programs), and inconsistency in approaches to policy (Dredge 2005). The MOH was under-resourced and did not have the capacity to undertake its policymaking and oversight functions. It was unable to perform the stewardship role explicit in the duties of a health ministry, and it did not have the capacity to evaluate and quantify policy options. It similarly was not resourced to oversee the financial and functional operation of the HIF, nor could it hold the HIF accountable for its performance.

2.4 The Government's development program for 2008-2012, "Rebirth in 100 Steps," still identifies better education and health systems as essential preconditions for achieving the core goal of faster, sustainable growth as the means to create jobs and improve living standards (World Bank 2010). Achieving cost containment in the health sector without

sacrificing quality and equal access remains a key element of the Government's public expenditure management program.

2.5 The Bank's Country Partnership Strategy (CPS) for Macedonia (2011-2014) notes critical challenges facing health sector outcomes, sustainability, and efficiency, citing strengthening of the health financing system as one of the keys to consolidating macroeconomic stability (World Bank 2010). Improving health outcomes is one of the central planks of the Strategy's Principles of Engagement, "More Inclusive Growth: Employability and Social Protection." With health care not specifically included in the EU *acquis communautaire*, the value of continued Bank engagement in a sector where it has built relationships and important country knowledge is heightened. The 2011-2014 CPS identifies the health sector as a target for possible additional investment lending in FY 2013 or 2014 (World Bank 2010).

2.6 **Design.** The project contained four components:

**(1) Policy Formulation and Implementation** (appraised costs, US\$ 1.00 million; actual costs, US\$ 2.42 million), was intended to shift the MOH from day-to-day administration functions to priority setting, policy making, and monitoring and evaluation. Its activities were to include development of health sector policy and strategy for overall health policy formulation, health management information system development, quality improvement in health systems provision, primary health care, privatization of health services delivery, and streamlining of pharmaceuticals registration and generic substitution provision; strengthening of the MOH's and HIF's capacity to develop and implement public relations and communications activities related to health reforms; and capacity-building in the MOH for budget formulation and monitoring, including providing guidelines to the HIF and other health institutions in budget formulation.

**(2) HIF Governance and Management Strengthening** (appraised costs US\$ 3.35 million; actual costs, US\$ 1.57 million), was intended to implement positive changes in various core HIF functions such as revenue collection, HIF management, and purchasing, in order to improve fiscal discipline, transparency, and effectiveness of service provision. Its activities were to include improvement of revenue collection and of eligibility criteria for health insurance coverage for different categories of beneficiaries, including information technology upgrading; strengthening of the HIF's management capacity, including improving its Management Board functioning and development of oversight functions, its financial management and administration practices, its management information systems, and its general management at the central office and regional branches; and strengthening the HIF's purchasing functions in order to reduce costs of goods and services to be purchased, including design and implementation of new payments models and contracts, improvement of drug needs assessment and of drug supply use and management, and improvement of drug procurement processes.

**(3) Service Delivery Improvement** (appraised costs, US\$ 5.12 million; actual costs, US\$ 5.88 million), was to improve the quality and efficiency of health care providers by supporting development of staff skills, introduction of new management models and instruments, and essential upgrades of units selected to implement well-defined subprojects.

Its activities were to include strengthening of management for hospitals and primary health care providers, including development of new skills and instruments required for the implementation of new HIF contracting schemes, and development of a basic electronic registry; and establishment of a grant facility to provide grants to eligible health service providers to support the implementation of new business plans and other activities designed to improve service quality and efficiency, including infrastructure of health care facilities.

**(4) Project Management, Monitoring, and Evaluation** (appraised costs, US\$ 1.17 million; actual costs, US\$ 1.70 million), was to strengthen MOH and HIF capacity for project management, monitoring, and evaluation, including audit, procurement, and financial management activities, and financing of Project Coordination Unit (PCU) operating costs.

**2.7 Relevance of Design is also rated Substantial.** The Project Appraisal Document (PAD) contains a clear results chain linking project activities (by component and subcomponent) to expected results, expressed in terms of outcome indicators, and each link in this results chain is plausible and well explained. The activities in Component 1 would have plausibly been expected to lead directly to achievement of the first objective, with capacity-building activities across a range of actors intended to lead to more effective policy and policy-making. Component 1's inclusion of activities related to public relations and communications was intended to ensure that affected populations would understand the content of new policies as well as behavior changes and trade-offs that would be anticipated. The activities in the second and third components were linked, with service delivery enhancement activities under Component 3 intended to give health care providers the tools necessary to respond to new incentives created as the HIF implemented new payment and contract models under Component 2. The lack of specific emphasis on development of day-care services and shifting to primary care in Components 2 and 3, however, is a shortcoming; the stress on overall capacity-building and achievement of greater efficiencies in the delivery of health services would not necessarily lead directly to investments in day-care services (as cited in the objectives).

**2.8 M&E design** included thirteen outcome indicators and nine intermediate outcome indicators. These appropriately included outcome measures related to the first objective regarding not merely formulation and adoption of new policy, but also effective implementation of these policies (increase in HIF revenue and contributors, reduction in prescription drugs purchased in non-HIF-contracted pharmacies, adherence to new clinical guidelines). For the second objective, standard indicators were included to measure increased efficiency of delivery of health services, including reduced average length of hospital stay, decreased referrals to inpatient care, and increases in the number of outpatient surgeries. A Policy Analysis Unit was to be created in the MOH, to work together with project staff to monitor performance indicators for the duration of the project, establish a plan for M&E activities of the MOH, and agree with the Bank on evaluation studies to be conducted prior to the completion of the project. This Unit was to be responsible for monitoring the impact of health reform on the health status of the population and on the financial viability of the sector.

**2.9 Implementation arrangements.** The MOH was to be responsible for overall project management and implementation. Staff from the MOH and HIF were to be appointed as

Project Coordinators, with consultants in the Project Coordination Unit (PCU) acting as Assistant Coordinators. In practice, the Project Coordinators were not able to devote adequate time to the project due to their responsibilities in their respective institutions, and therefore the consultants in the PCU functioned as de facto Component Coordinators. In addition, the Deputy Minister of Health was assigned to be the Project Principal Coordinator, allocating 20 percent of his time to oversee the work of the PCU. This also proved to be unworkable due to time constraints. In early 2006, the Minister of Health agreed to recruit a Chief Operating Officer to help deal with day-to-day issues of implementation, but this did not take place.

### 3. Implementation

3.1 There were four amendments to the Loan Agreement, three of which reallocated funds among components. The most substantial of these reallocations stemmed from a government decision to finance development of software for the Integrated Health Management Information System with its own funds, shifting project resources initially intended for this purpose to consultancy services, training, and operating costs. The government made US\$ 2.06 million of a planned US\$ 1.34 million contribution.

3.2 The closing date was extended twice. The first extension, from June 30, 2009 to June 30, 2010, was to allow time for procurement of hardware for the health information system and for activities related to the strengthening of primary care and introduction of diagnosis-related groups in hospitals. The second extension, from June 30, 2010 to December 31, 2010, allowed for completion of delivery, installation, configuration, and testing of computer hardware.

3.3 **Concurrent operations.** The precursor Health Sector Transition Project provided the institutional underpinning for the implementation of health reforms under the Public Sector Management Adjustment Loan 2 (PSMAL, US\$ 30 million, 2004-2005), which included specific reforms in the health sector to improve the internal control system of the HIF and the procurement of pharmaceuticals (Table 1). Concurrently with the Health Sector Management Project, the Bank financed a series of three Programmatic Development Policy Loans: PDPL I (2005-2006, planned US\$ 30 million; actual US\$ 29.3 million); PDPL II (2007, planned US\$ 30 million; actual 34.1 million); and PDPL III (2008, planned US\$ 25 million; actual, US\$ 21.1 million); and a First Programmatic Development Policy Loan (2009-2011, US\$ 30.0 million). One of the main objectives of the first PDPL series was to improve the financial management, transparency, and governance of the HIF and public health institutions, including procurement of medicines. The Health Insurance Law was amended to streamline the operations, decision-making, and transparency of the Board of Directors of the HIF, and its implementation capacity and independence from the MOH was improved. A comprehensive National Health Strategy was developed to guide policy-making in the sector over the long term. A Health Provider Law was drafted, but did not advance and was largely abandoned. The 2009-2011 operation included reforms to create a treasury function within the HIF to enhance financial management and control in the health sector. The HSMP is viewed by stakeholders as an example of sector investments

complementing a broader reform agenda supported by adjustment operations, with the latter offering incentives to the government to implement the overall health strategy.

**Table 1. Prior, Concurrent, and Current Related Bank Operations**

Operation	Dates	Amount (US\$ millions)	Health-Related Objectives/Policy Areas
Health Sector Transition Project	1996-2002	17.1	To improve the health of the population by enhancing the quality of basic health services; and to support an initial phase of policy reforms to increase cost-effectiveness, fiscal sustainability, and patient choice within the health system.
Public Sector Management Adjustment Loan 2	2004-2005	30.0	Five major areas of reform (budget formulation, budget execution, audit, procurement, and civil service), plus specific reforms in the health sector, including improvements in the internal control system of the Health Insurance Fund and in the procurement of pharmaceuticals. To strengthen incentives for the efficient operation of public hospitals, the operation also supported revisions in the legislation governing the financial relationship between the HIF and individual hospitals, as well as the introduction of performance contracts for at least seventeen such facilities.
Programmatic Development Policy Loan (PDPL) 1, 2, 3	2005-2009	85.0	Reforms to improve transparency, management, and governance of the Health Insurance Fund by strengthening HIF governance and the health policy making environment, and improving budget planning and control, financial management, and procurement in the HIF, Ministry of Health, and health care institutions.
First Programmatic Development Policy Loan	2009-2011	30.0	To manage the impact of the global crisis by maintaining a sound macroeconomic and fiscal framework; to cushion the impact on the poor and vulnerable by enhancing social protection systems; and to strengthen the resilience of the financial sector by addressing potential vulnerabilities. Included reforms to create a well-functioning treasury function within the HIF to enhance financial management and control in the health sector.
Conditional Cash Transfers Project	2010-2014	25.0	To strengthen the effectiveness and efficiency of the country's safety net through the introduction of conditional cash transfers, and improvements in the administration, oversight, monitoring, and evaluation of social assistance transfers. Support for the implementation of a CCT program for poor families with children in secondary education, and support for identification, development, and implementation of possible extensions to the CCT model in health, labor, and/or other levels of education.
Policy Based Guarantee	2011	134.9	To strengthen sustainability of public finances and functioning of labor markets, improve performance of social protection, and strengthen resilience of the financial sector.

Operation	Dates	Amount (US\$ millions)	Health-Related Objectives/Policy Areas
			Included actions to de-link provision of free health insurance to registration as unemployed and introduce an income-based test for provision of free health insurance; and for the HIF to effectively regulate the operations of the new Health Single Treasury Account covering all public health institutions.
Public Expenditure Policy Based Guarantee	2012	201.5	To strengthen public financial management, improve the efficiency of spending and service provision in the health sector, and strengthen social protection and inclusion. Included prior actions aimed at decreasing wholesale prices for drugs by improving the methodology for reference pricing, decreasing prices for some medical devices by introducing centralized procurement, and improving service provision in underserved areas by introducing standards of health staff coverage based on population density, intended to limit new service provision in well-served areas and shift to under-served areas.

Source: Project Documents

**3.4 Political factors.** Four changes in ministers of health and similarly frequent changes among other senior MOH officials compromised continuity. Political commitment and project ownership were affected, resulting in implementation delays. Over time, the MOH has placed less priority on implementation of agreed strategic priorities and more on realizing politically attractive big-ticket equipment purchases and construction contracts. Jockeying among political parties and interest group-based struggles over policy and resources have politicized and obstructed reform (Dimeski 2011). As a result, strategy does not guide decision-making to an optimal degree.

**3.5 Implementation of M&E.** While the Policy Analysis Unit played some role in monitoring indicators during early stages of project implementation, through most of the project period the PCU component coordinators took the lead in collecting and reporting data. Also, under the project, the HIF introduced a set of key performance indicators for monitoring of service provision in primary, secondary, and tertiary care, including a methodology for collecting data for monitoring, review, and assessment. Ten indicators were agreed upon, and regional institutes of public health were put in charge of completion of forms and transcription of collected data into a database. These indicators have formed an integral part of every contract between the HIF and health care institutions since 2007.

**3.6 Safeguards compliance.** The project was classified as Category “C” for environmental assessment purposes. The loan did not finance civil works as a category of expenditure. However, through the grant facility under Component 3, the project financed a number of minor rehabilitation-type works in hospitals and other health institutions. None of these renovations triggered environmental safeguard policies. The project did not finance goods requiring a medical waste management plan.

3.7 **Fiduciary compliance.** Until mid-2006, financial management arrangements, including accounting, reporting, budgeting and planning, internal controls, and funds flow were satisfactory. Between the end of 2006 and mid-2007, shortcomings began to appear, including accounting discrepancies, consequent inaccuracies in quarterly financial reports, and in some cases, lack of application of key internal controls and procedures. By early 2008, most of these problems were resolved, but several issues resurfaced again in early 2009. Significant improvement was observed by the end of 2009, and auditors issued a clean opinion on the project's 2008 financial statements.

3.8 Disbursements were slow during the first two years of implementation, with only 8 percent of the loan spent at mid-term (December 2006). This was partly due to the types of expenditures early in the project period (technical assistance and training), but also because of delays in the purchase of information technology hardware. Disbursements accelerated after mid-term. Withdrawal applications were prepared regularly, but since the project followed the treasury system, expenses had to be paid from the Special Account. Some large contracts for hardware toward the end of the project period required more funds than were available in the Special Account, and an agreement was reached with the Ministry of Finance in these cases to authorize the PCU to process withdrawal applications for direct payments.

## 4. Achievement of the Objectives

4.1 **Attribution.** At the same time that the Project was being implemented, there were parallel adjustment operations, as well as technical assistance provided through Dutch Trust Funds. The project spent a relatively small amount of money compared with these other interventions, but it is widely acknowledged that the project's investments realized important synergies with the policy loans, and that overall the Bank has been the primary external agency supporting health reform before, during, and since the project period.

### OBJECTIVE 1

**Upgrade the Ministry of Health's (MOH's) and Health Insurance Fund's (HIF's) capacity to formulate and effectively implement health policies, health insurance, financial management, and contracting of providers is rated Modest.**

4.2 **Ministry of Health.** The project provided technical assistance on many aspects of health reform, including for the development of a medium- and long-term health strategy and implementation plan, and for development of a public relations strategy to promote health reforms to various stakeholders and the general public, including training for MOH staff and journalists on health reforms (see Table 2 for a list of policies developed under the project). As indicated earlier, the project provided technical support for many policy reforms that were included as prior actions under parallel adjustment operations. A Medium-Term MOH health sector strategy was developed and approved in 2005-2006; initially covering the period 2005-2015, it was subsequently extended (in June 2007) to 2020. The health sector strategy is universally seen as strong and appropriate for the Macedonian context, developed through a consensual process. However, there is wide disagreement over the extent and effectiveness of its implementation, with many stakeholders claiming that it has been essentially abandoned in favor of ever-shifting political considerations. For example, over

the last two years the MOH has begun to conduct tenders for equipment purchases for health institutions, encroaching on the area of HIF's responsibility and contradicting the MOH's central roles as steward and policy-maker.

**Table 2. Health Sector Policies and Strategies Developed with Project Support**

<i>Policy</i>	<i>Date</i>	<i>Impact</i>
National Health Strategy	2005, revised in 2007	Mixed opinion: some see the Strategy as an effective foundation for reform; others see it as secondary to political considerations.
Privatization Strategy	2007	Full, successful privatization of primary care providers with full introduction of capitation model for payment.
Diagnosis-Related Groups	2007	Successfully introduced, but limited impact. Account for only 20 percent of hospital budgets.
Public Information Strategy for health reform	2007	Successfully produced and implemented.
Medical Map	2007	Largely abandoned.
Health Provider Law	2007-2008, proposed but not adopted or implemented.	Would have given providers more autonomy to react to incentives for efficient care.
Pharmaceutical and Clinical Guidelines	2009	Clinical guidelines universally distributed but not yet widely adopted in practice.
Public Health Law	2010	Comprehensive law, central to EU accession.
Health Information Technology strategy	2011	Created but unsuccessfully implemented.
Treasury Function for HIF	2011	Successfully implemented with existing HIF staff.
Basic Benefits Package	Reform necessary but not implemented.	Would provide an important tool for rational and cost-effective investment decisions.

Source: IEG

4.3 The procurement of Pharmaceutical and Clinical Guidelines (Cochrane database) was completed in late 2009, serving as a reference for updating Macedonian clinical guidelines and improving quality of care. A working group on clinical guidelines was active beginning in 2007, and 32 new guidelines were developed in line with international standards and widely distributed in hardcopy and through the project's website. However, interviews with providers and with the Doctors' Chamber make it clear that adoption of these protocols is far from complete, with their use not yet mandated by law and with physicians still posing numerous questions about whether the protocols are intended as reference tools or as strict instructions with penalties for non-compliance. According to the HIF, the focus during the project period was on their creation, with implementation explicitly deferred until later. Formal quality control is still officially the mandate of the MOH, but despite the occasional investigation of a case of malpractice, drawing much media and public attention, very few instances of fault are ever confirmed.

4.4 A 2010 Public Health Law, passed without objection in Parliament, was elaborated through extensive workshops and consultations with stakeholders, and with two intensive programs in Belgium and Holland for the media and for the Macedonian Institute of Public Health. This comprehensive law, which (according to stakeholders) would not have been possible in the absence of the project, complies with European public health norms and is an important component of the EU accession process.

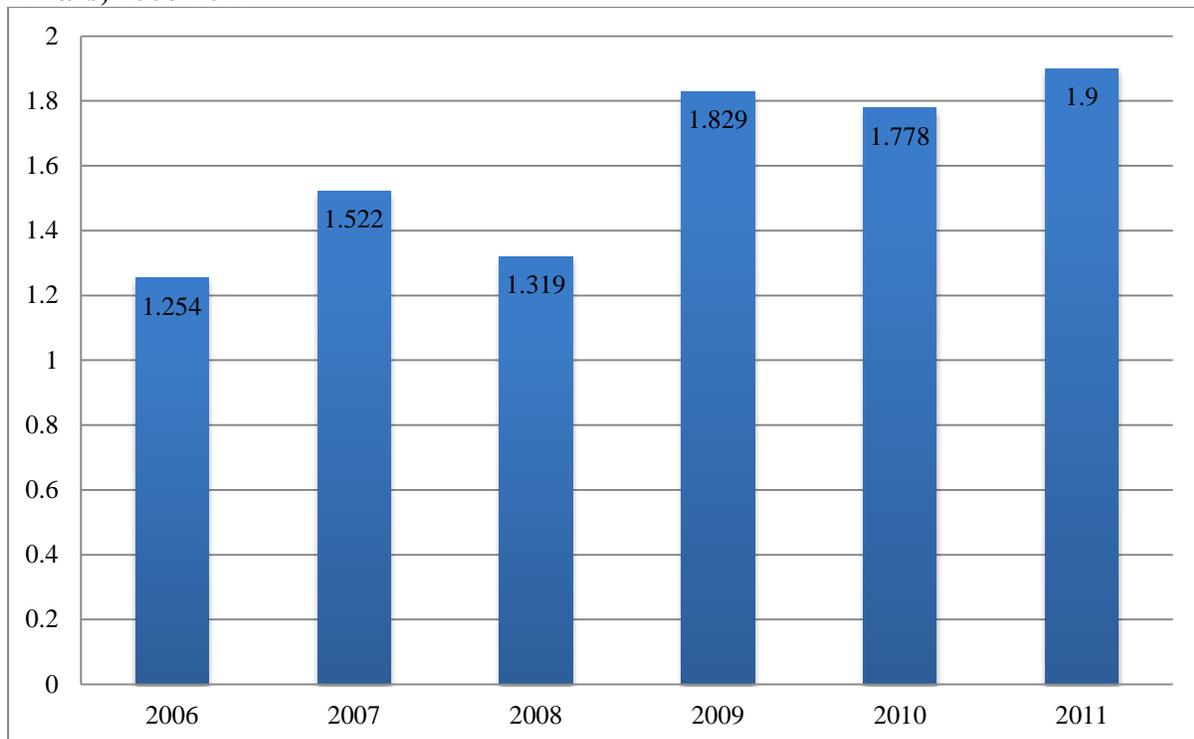
4.5 A Policy Analysis Unit (PAU) was established in the Ministry of Health in 2005, with responsibility for providing input and guidance on health policies, monitoring health indicators, and assessing the impact of policies and reforms as they were implemented. The Head of the PAU was to lead and coordinate the formulation of all health policy within the Ministry and was to report directly to the Minister. Challenges in launching the PAU were evident, however, from the beginning. Rigid Macedonian laws on civil servants and the state budget required a number of preconditions before a new position, department, or unit could be established, but agreements to consider these preconditions satisfied and add to MOH manpower were not followed through because of financial and overall civil service number restrictions. Established reporting hierarchies also meant that a stand-alone unit like the PAU could not enjoy its intended role and authority (Dredge 2005). Initial staff appointments specified that the PAU would be comprised of two existing full-time employees of the Ministry, and one existing staff member from the Republic Institute of Public Health. With core staff simply adding to existing responsibilities, and not dedicated to the role of policy analysis and monitoring, the PAU was diluted from the beginning. In addition, the PAU's role in providing advice to the Minister was never made clear, generating opposition from other senior officials who were not included in this policy "loop" (Dredge 2005). By the end of 2008, it was clear that the MOH was not maintaining the PAU, despite project investments in an international advisor and equipment for the unit.

4.6 A medical map was finalized in 2007. It provides distributional information on the population, demographics, poverty proxies such as unemployment and illiteracy rates, health status, and health resources across eight statistical regions and 84 municipalities. It was intended to serve as a planning tool to modernize and rationalize the health sector and to control expenditures. However, recent governments have been less than enthusiastic about its utility; if the map matches demographics, morbidity, and mortality with health institutions, staffing, and capacity, it is likely to produce a politically toxic finding of excess hospital capacity, and so it has been largely abandoned.

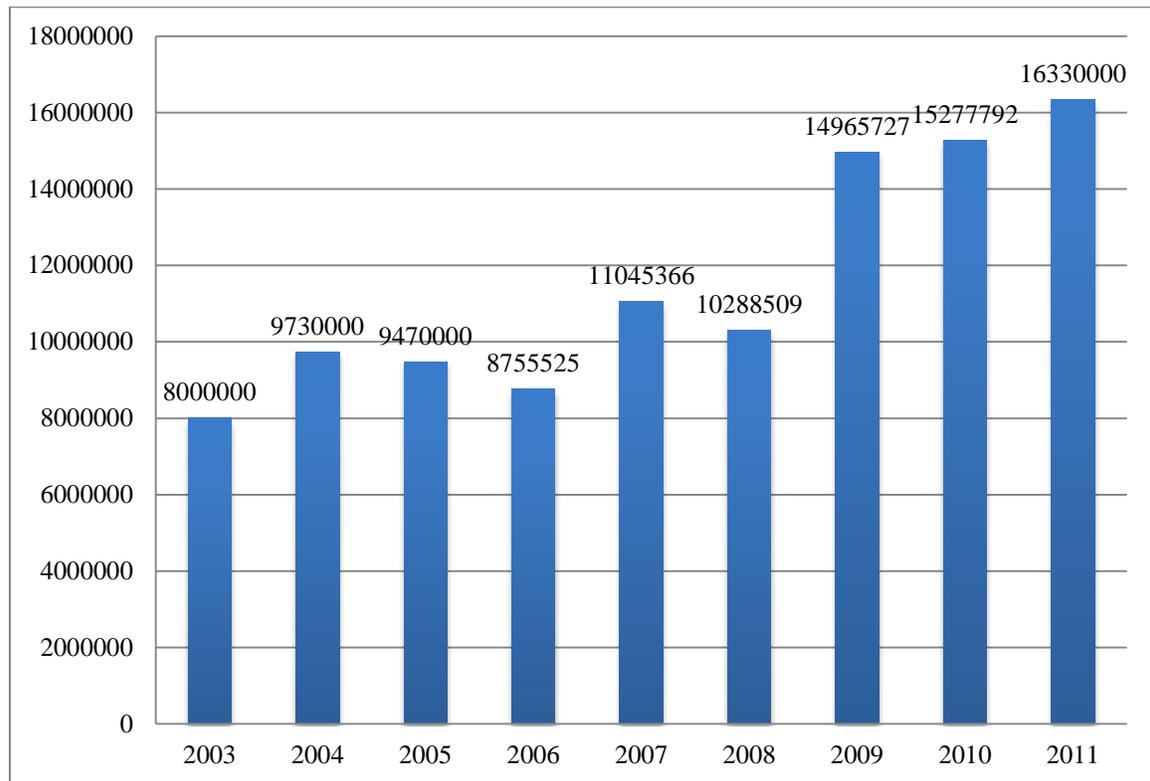
4.7 The project also contributed to reform in the pharmaceutical sector. Macedonia, with only two million people, has not traditionally been an attractive market for large drug companies. The combination of limited market opportunity and complicated procedures for new product registration has resulted in high costs for some pharmaceuticals and medical devices compared to neighboring countries. During the decade following independence, there was constant lack of supply in the pharmacies of the drugs included on the positive list financed by the HIF, but these drugs were always available for private purchase directly by patients. This resulted in an increase in private spending for health care (Lazarevik 2010). The 2004-2005 PSMAL required the government to adopt and implement a new procurement procedure based on international competitive bidding (ICB), with the tender covering one year's supply of generic drugs; the second tranche was not disbursed until contracts with the

winning bidders were signed. The HIF issued Bank-approved bidding documents in November of 2004, and the bid evaluation process was successfully completed in March 2005. This tender achieved a savings of 17 percent compared with previous efforts, and the number of prescription drugs purchased in non-HIF-contracted pharmacies and reimbursed by HIF decreased by 14 percent. The HIF then introduced reference pricing (one of the main elements of the 2005-2009 PDPL series), where rather than procuring drugs, the HIF reimburses a fixed amount covering the cost of generics, and patients and doctors then choose which drugs actually to use. A Dutch Trust Fund was used to help establish appropriate national pricing (World Bank 2009a). Since then, largely due to the new pricing scheme, and later the introduction of new covered medications and an increase in the number of pharmacies under contract, the value and number of prescription drugs covered by the HIF has increased considerably (Figures 1 and 2). Reference prices made costs lower and more predictable for the HIF, allowing it to stretch its revenues across a wider array of drugs and facilities. Attribution for these gains cannot be unequivocally ascribed to the project, as data are not available for the time period immediately preceding its interventions, but the jump in coverage is clearly between 2008 and 2009, during the project's lifetime and immediately after reference pricing was introduced.

**Figure 1. Total Value of Prescription Drugs Covered by HIF, Billions of Macedonian Dinars, 2006-2011**



Source: HIF annual reports; values adjusted for inflation

**Figure 2. Number of Prescriptions Covered by HIF, 2003-2011**

Source: HIF annual reports

4.8 Capacity developed under the project enabled limited progress toward reform of the Basic Benefits Package, necessary for long-term sustainability of health spending. Currently, the benefits package provides (on paper) comprehensive coverage for outpatient and inpatient services for the more than 90 percent of the population enrolled in the HIF. In contrast to EU countries, non-medical benefits, including sick leave and maternity benefits, are also included, even though available health sector finances are not adequate to cover the cost of all these benefits and services. The package has not been evaluated using cost-effectiveness and allocative efficiency criteria (World Bank 2011c), and reform has been politically challenging, with new priorities following each new government and few politicians willing to reduce the scope of guaranteed benefits. In November 2010, the government adopted a Memorandum on revision of the package that recommended options for reform, including revision of the list of services to be covered, changes in co-payment policies, and promotion of voluntary health insurance. So far, however, reform of the Basic Benefits Package has proved to be politically unworkable and has stalled.

4.9 The major IT effort under the project was the development of an integrated IT system that would link the MOH with hospitals and with the HIF. Beginning in 2009, the Bank began to persuade the government of the importance of progress toward an integrated data environment for all of these institutions. A wide range of planned IT reforms for both MOH and the HIF – development of an integrated health information system (IHIS), introduction of electronic cards, restructuring of the HIF information system, introduction of DRGs, and the introduction of the HIF treasury function – depended directly or indirectly on the planned

procurement of IT equipment through the project. Delays in preparing the technical specifications for the IT equipment threatened successful completion of the procurement. There were also architectural risks, as the IHIS as initially designed did not integrate the HIF well, resulting in a situation where (for example) a case-based payment model was implemented with two different software products, and therefore hospital personnel had to enter data twice for each case. Furthermore, as of late 2009, there was no project manager devoted only to IHIS development, and the relationship of the HIF team to the project's IT team was unclear. An IT Working Group in the MOH did not have the capacity to manage such a complex project. Cost overruns for the computer hardware and consequent need to shift funds between components meant that other beneficial activities had to be stopped.

4.10 The MOH purchased, with US\$ 2.65 million in funds from the project, 1,695 desktop computers, 200 printers, 100 laptops, hardware for an MOH data center, 30 servers for hospitals, networking hardware, all supporting equipment, and off-the-shelf system software. These were delivered to hospitals and other public health institutions. Development of the software and training of users was left to the government, however, and that process stalled. A consortium of Croatian companies was contracted to create the network software, but after repeated missteps and delays, that contract was cancelled. As a result, each hospital has an acceptable package of computer hardware but has been left to its own devices to develop or purchase its own software, establish a network, and implement training. This means that the HIF now has to cope with different invoicing software systems at each hospital.

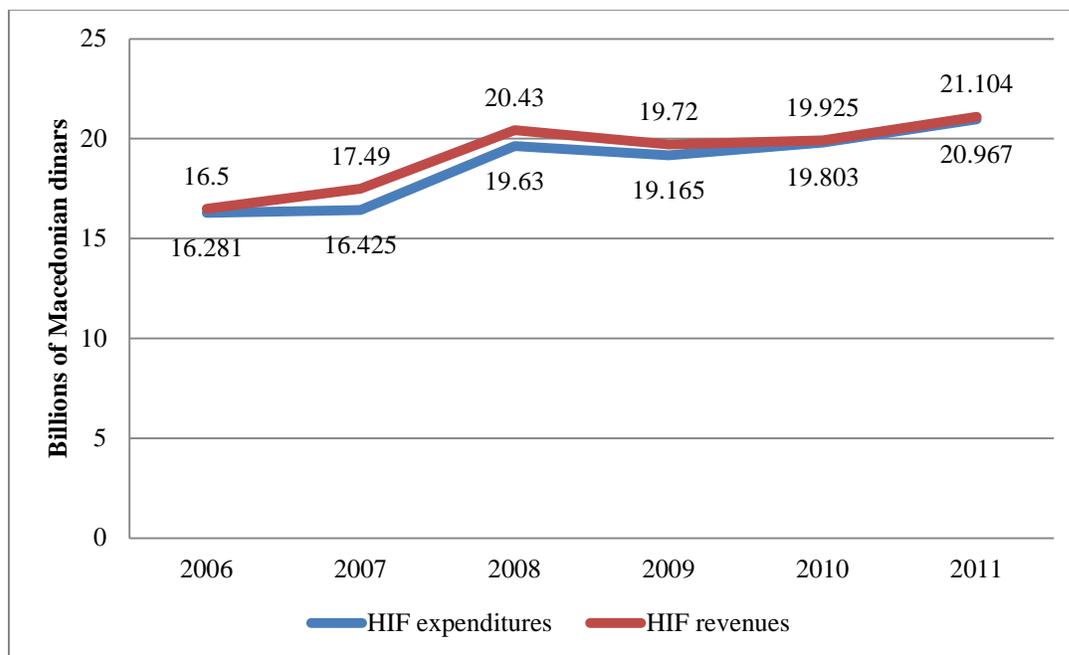
4.11 Moreover, the individual hospitals' computers are not networked to the central health ministry. A planned MOH IT Center was never built because of a change in priority when a new health minister came on board, and there was pressure simply to disburse the funds even in the absence of a network. Overall, there were not enough IT experts involved in system planning, and as a result the MOH IT working group did not create an adequate set of initial specifications; there were too many members in the working group, each pushing a different set of specific ideas and needs. Without effective coordination and leadership, eventual development of a coherent set of system specifications was impossible. Overall, these IT shortcomings represent a significant missed opportunity. While not a major brake on achievement of overall project outcomes, they compromised efficiency and will require duplicate expenditures if the health sector is to move forward with more cost-effective forms of provider payment.

4.12 **Health Insurance Fund.** The project provided technical assistance for training for members of the HIF Board and staff, for development of the HIF information and management system, for developing key performance indicators for HIF contracting with health care institutions, and for implementation of provider payment reforms. Assistance was also provided for the development of the methodology for drug reference pricing and for prescribing guidelines and rational drug use. These interventions were considered necessary because HIF audits in 2000, 2001, and 2003 had identified a litany of shortcomings, including poor accounting and recording of transactions, payments that did not match invoices received, and improper write-offs of accounts receivable and payable (World Bank 2005). Disbursement of the second tranche of the 2004-2005 PSMAL was conditioned on the government's agreement to an action plan with a time-bound schedule for: (a) establishing an appropriate policy base for health system reforms; (b) imposing fixed budget

ceilings on health care institutions; (c) improving controls over providers' budget execution, reporting, reforecasting, and the treatment of arrears; (d) establishing a preliminary set of financial and service performance indicators for all health care institutions; and (e) strengthening internal and external audit. Elements of this action plan were also included as disbursement conditions under the PDPL (World Bank 2005).

4.13 An Action Plan for improving revenue collection, based on an external audit of HIF, was prepared and implemented. Revenue collection increased by 13.2 percent between 2004 and 2009 (from 14.9 billion Dinars in 2004 to 19.7 billion Dinars in 2009), at least in part due to decreased contribution evasion (Figure 3). The number of contributors (employed contributors plus people whose contributions are being paid by the government, including unemployed persons, persons with disabilities, etc.) increased by 12 percent over the project period (Table 3).

**Figure 3. HIF Revenue and Expenditure, 2006-2011**



Source: HIF annual reports

**Table 3. Persons Insured by Health Insurance Fund, 2006-2011**

<i>Category</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
Active workers	423284	445653	468860	478962	482929	488869
Active farmers	18038	17297	14799	14613	14869	18154
Pensioners	313396	329611	284425	278863	283303	291170
Unemployed persons	283999	263672	253280	256416	253249	21927
Unemployed insured by MOH				5628	14458	216965
Other	25285	24098	21296	18586	17321	17464
<b>INSURED PERSONS</b>	<b>1054002</b>	<b>1080331</b>	<b>1042660</b>	<b>1053068</b>	<b>1066129</b>	<b>1054549</b>
Family members	884758	879053	853352	840766	836816	780980
<b>TOTAL INSURED PERSONS</b>	<b>1938760</b>	<b>1959384</b>	<b>1896012</b>	<b>1893834</b>	<b>1902945</b>	<b>1835529</b>

Source: HIF Annual Reports

4.14 With support from the 2005-2009 PDPL series and technical assistance from the project, the HIF Board structure and operation was revised, according to new regulations adopted by Parliament; the Board is now appointed for four years and functions according to a new operations manual. In 2011, it met 14 times, with minutes published on its website (HIF 2012). An internal audit unit is functional. Annual HIF audits have been found acceptable; since 2004, comments in management letters have decreased in substance and in number. The percentage of total HIF expenditures devoted to HIF administration has remained low, around 2.5 percent. In addition, the HIF is now effectively performing its control function. In 2011, it carried out 8,251 controls (inspections to ensure that providers are fulfilling their contractual obligations to the HIF), resulting in 273 fines or penalties. Of these, 150 prompted objections from the health care institutions involved, and upon review, the majority (134) of the penalties were confirmed (HIF 2012).

4.15 At least in part due to technical assistance, capacity development, and IT support provided by the project, the HIF has maintained coverage for 90 percent of the population and has increasingly gained capacity to identify and rectify barriers to effective coverage. According to Employment Bureau Agency estimates, for many years around 20 percent of all those who registered as unemployed were doing so only for the purpose of receiving free health insurance (about 68,000 of 341,000 in July 2009), and there were relatively limited checks on the accuracy of information provided (World Bank 2009b). The HIF identified this trend and instituted checks to reverse it, resulting in an 8.8 percent reduction in those receiving these benefits between 2009 and 2011 (those registered as unemployed plus those unemployed covered by the MOH; Table 3). More recently, the HIF identified a 22 percent increase from 2010-2011 in the number of farmers registered for health insurance, while the State Statistical Office found a 7 percent decrease in the number of persons employed in the agricultural sector that year. The HIF found that this trend stemmed from people who had formerly registered as unemployed in order to benefit from reduced monthly premiums for health insurance, now prevented from doing so, beginning to identify themselves as farmers in order to get reduced health insurance premiums. As a result, a September 2011 legislative action pursued by the HIF decoupled the provision of free health insurance from employment registration altogether, introducing instead an income test in the form of a self-declaration that will be checked by the Public Revenues Office (HIF 2012). Free health insurance will

be provided only to individuals with income levels below 30 percent of the average annual income.

4.16 The HIF also has displayed analytic capacity to understand recent increases in the number of issued sick leaves and funds allocated for sick leaves. Rather than concluding that there is increased population morbidity, the HIF conducted an analysis indicating that the sick leave increases are due to rising employment (and therefore a greater number of persons eligible for sick leave), an increase in the average salary (which increases sick leave compensation), low interest among employers in controlling sick leave, and evidence of misuse of sick leave (higher rates of use among young people age 25-35, and higher rates among young women indicating possible use of sick leave for child care needs). As a result of this analysis, there were amendments to the by-laws governing sick leave in 2011 and 2012 (HIF 2012).

4.17 In January 2011, a Single Treasury Account covering all public health institutions was introduced within the HIF (as a prior action to a 2011 Policy Based Guarantee), designed to increase efficiency in spending and provide an additional line of defense against over-commitment or overspending by the HIF and health care institutions (World Bank 2011c; HIF 2012). This new function has been carried out by existing staff already employed in the HIF; with reallocation of existing human resources, the HIF established departments or divisions for treasury operations in the 30 regional HIF branches, as well as a department for treasury operations within the Accounting and Treasury Section at HIF headquarters (HIF 2012). This arrangement may begin to allow appropriate flexibility for these institutions to have autonomy in allocation of resources. Estimated savings from the Single Treasury Account amounted to 0.2 million Euros in 2011, and the new system is improving financial management practices by requiring health institutions to prepare budgets and monthly plans and control their execution (World Bank 2012).

4.18 Most importantly, financial obligations of the HIF to suppliers were cleared in 2007, and the obligations of the entire public health sector fell from 1.7 percent of GDP (4.7 percent of government revenues) in 2004 to 0.4 percent of GDP (1.0 percent of government revenues) in 2008, largely due to the introduction of hard budget ceilings for health care institutions and strengthening of ex-ante controls over spending (the project helped to install accountants in hospitals to ensure compliance). However, after 2008 debts began to re-accumulate, with the obligations shifted from the HIF to the providers themselves. In 2007, as the HIF debt was cleared, responsibility for purchasing medicines and small medical equipment was shifted to hospitals. Hospitals are now accumulating arrears that reached 0.5 percent of GDP by the end of 2009, 0.3 percent of GDP by mid-2010, and 0.6 percent of GDP at the end of 2010, with about 40 percent of that debt for intra-hospital services (World Bank 2011c). As these hospital facilities are public, ultimately the debt accrues to the central government; the eventual fiscal impact is unclear.

4.19 At the time the HSMP became effective, an information system for the HIF was essentially in place. Branch offices of the Fund were integrated with the central office through a functioning network. However, each of the HIF branches had created its own registry, rather than relying on one central database in Skopje, resulting in duplication for

patients who live and work in two different cities, a substantial number of people in such a geographically small country. The HIF is now having to design a new, centralized system.

4.20 Overall, the project **Modestly** upgraded the capacity of the MOH and HIF to formulate and effectively implement a wide range of policies and strategies. The MOH pattern is one in which new and potentially effective policies have been successfully adopted, but political or other pressures prevent follow-through to implementation. This was true of the clinical guidelines, medical map, basic benefits package, and information technology strategy. The HIF has been more successful, with capacity development resulting in improved revenue collection, administrative efficiencies, and progress toward clearing debt obligations within the health insurance system. However, even the HIF has struggled with effective implementation of IT development plans.

## **OBJECTIVE 2**

**Develop and implement an efficient scheme of restructuring hospital services, with emphasis on developing day-care services and shifting to primary care is rated Substantial.**

4.21 The project provided technical assistance on health care financing and legislation, including for drug reference pricing, development of key performance indicators for HIF and health care provider contracting, and hospital reform and management. Training was provided for regional as well as national offices. These inputs were intended to contribute to effective restructuring of health services that would provide increased incentives for expanded use of cost-effective, higher-quality primary care, in conjunction with new payment models for hospital care that would result in closure or reprofiling of excess capacity and improved, more efficient care in remaining inpatient facilities. To this end, the project supported new models of financing and ownership of primary care as well as training of family medicine practitioners. It also supported grants to improve infrastructure in select facilities and the introduction of case-based payments for inpatient care.

4.22 As of January 1, 2007, primary care physicians – general practitioners, gynecologists, pediatricians, occupational medicine, and school medicine physicians -- were privatized. Practitioners received premises, equipment, and devices under concession, and compensation shifted from salary to capitation based on the size of the providers' catchment area populations. Preventive care doctors and nurses remain on the public payroll, and those facilities and equipment remain in public ownership. By the end of 2008, almost 2200 primary health care providers had been contracted by the HIF, constituting 95 percent of the licensed primary care providers and over 35 percent of all licensed practicing physicians in the country (Milevska-Kostova 2011).

4.23 Also in 2007, with project support, capitation payments were introduced for primary care. The HIF pays primary care centers a capitation amount adjusted by age, gender, and region (high payments in rural and mountainous areas), with an additional performance component based on compliance with a set of preventive and curative care indicators including immunization, diabetes, cardiovascular disease, cancer prevention, prescription medicines, referrals, and the issuing of sick-leave certificates. Of the total monthly capitation

amount, a 70 percent base payment is paid monthly, while 30 percent is withheld to be paid at the end of each quarter, based on quarterly performance evaluation on agreed preventive care benchmarks: 7 percent for limiting the number of prescriptions per registered patient, 4 percent for rational referrals and sick leaves, and 19 percent for preventive services and early detection of malignancies and deformities in children (Schneider 2007; Milevska-Kostova 2011). A limit is placed on the total patient list a physician can claim each year, to ensure adequate attention to each patient. In 2009, the formula for prescriptions was further refined (because reductions in the numbers of issued prescriptions did not reach desired levels) to include a fixed budget, adjusted to the number of registered patients, for prescribing; exceeding the ceiling results in a decrease in the capitation payment. The capitation amount is paid directly from the HIF to the health facility bank account, where it is used to pay for all recurrent costs, including salaries of privatized physicians and materials to treat patients. The performance component is intended to eliminate the incentive to use the capitation funds for paying primarily salaries and to refer patients to the next level of care; there are few data available to assess whether there has been an impact on the provision of care.

4.24 The project established and equipped a Family Medicine Training Center at the Clinical Center in Skopje, harnessing trainers from Slovenia and also 20 personnel trained as trainers under the precursor Health Sector Transition Project who continue to serve as core staff. The MOH has established a requirement that all existing general practice physicians will be retrained through a standard three-month course in family medicine by the year 2020. After this retraining, each physician has to pass the same licensing examination as doctors newly educated as family medicine specialists.

4.25 This strong progress in family medicine evolved in the face of moderate political opposition. In early 2010, upon learning of the project's intention to implement training for family medicine, pediatricians began to mobilize with plans to strike and to encourage patient protests. Members of the project team met with practitioners' groups, brought in the Chair of the Board of Pediatrics from Ljubljana to discuss sensitive issues in a frank and open environment, and engaged the services of an effective public relations firm to engage the mass media. A new specialty, Primary Health Care: Pediatrics, was established to make pediatricians an essential part of primary health care teams. Resistance from obstetrician/gynecologists was overcome through reassurance that family doctors would perform only the most basic gynecological care, with continued referrals to specialists where appropriate. The level of capitation payments to primary care physicians was widely considered to be satisfactory, helping to smooth the way for the family medicine reform; the correct sequencing, with capitation first, facilitated the introduction of family medicine. The 2009 H1N1 pandemic also played a role in decreasing resistance to family medicine, as physicians hesitated to send patients to crowded infectious disease clinics where they might spread or be exposed to further infection; the epidemic helped physicians to see the important role family doctors could play in the health care system.

4.26 A grants facility was established to support demonstration projects in 14 health care institutions nation-wide, to improve energy efficiency, patient safety and satisfaction, and quality of care. An additional ten competitive grants were supported for activities including purchasing of x-ray equipment, dialysis chairs, and medical and office furniture.

4.27 At the inpatient level, in preparation for the introduction of case-based payments, in late 2006 hospitals began quarterly activity reporting, as well as performance reporting on average length of stay (ALOS), inpatient admissions, referrals, re-admission rates, and patient satisfaction scores. Of the historically defined global hospital budgets, the HIF began to pay 60 percent as a monthly base payment, 30 percent as a monthly payment based on activity benchmarks, and 10 percent based on those five performance indicators (with the performance component added at the beginning of 2007) (Schneider 2007). In 2007, diagnosis-related groups (DRGs) were introduced to measure performance and finance health services in hospitals, with 20 percent of a hospital's budget tied to the DRGs (World Bank 2009a). By 2011, the DRG system covered 54 public and four private hospitals (HIF 2012). Beginning in 2009, the HIF has published quarterly and annual DRG reports, with analyses of diagnoses and procedures, age and sex structure of patients, complexity of cases, average hospital stays, hospitalization rates, use of hospital capacity, and efficiency of spending. These analyses include comparisons of different hospitals and within the same hospitals over time (HIF 2012).

4.28 Acceptance of diagnosis-related groups was a political process, with resistance from the MOH, the HIF Board, and hospital directors. The project approached this problem gradually and through a multi-pronged strategy. A ten-day Hospital Management and Leadership Training Course was developed and delivered for about 700 participants, offered at 20 sites around the country. Through this management training, hospitals were persuaded of the benefits of business planning, so that each facility would know exactly what money was being spent, and for what services. Bringing physicians and economists together in these training sessions and planning processes addressed a situation where doctors had never thought about money, and economists had no ear for medicine. In parallel with the management training, the DRG system was brought on line with access for each hospital, so that the hospitals could see exactly how the system was intended to work while they were attending extensive workshops on its functioning in Skopje and across the country.

4.29 Hospitals have not, however, been fully transformed. The management training courses were a solid start, but their duration was too short to give hospitals the full capacity to be efficient. With DRGs comprising only 20 percent of hospital budgets, hospital managers still do not have full incentives for efficiency, and even if they did, they do not have the management autonomy to react to financial incentives through changes in the provision of care (eliminating unnecessary beds and staff). There are still political pressures to spend money on expensive equipment and capital repairs (that win votes for incumbent legislators) and to avoid staff reductions. The HIF conducts some training with hospitals that are found, through HIF audits, to have obvious needs for organizational improvements, but there is no team to conduct continuous work on management efficiency in hospitals. Moreover, the introduction of DRGs has had some unintended consequences, with procedures that are more highly scored (for payment) being performed more frequently, and referrals to other hospitals decreased because hospitals do not want to send reimbursements elsewhere.

4.30 Average length of stay in all hospitals decreased from 11.5 days in 2002 to 6.13 days in 2010, and the number of hospital beds per 1,000 population decreased from 4.83 in 2002 to 4.5 in 2009. The bed occupancy rate has remained constant at 53.7 percent in 2004 and

52.9 percent in 2009, very low compared with the 2004 EU15 average of 77 percent (Gjorgjev 2006; World Bank 2007; DRG Work Group 2010). The number of outpatient surgeries for selected indications increased from 13,151 in 2005 to 41,500 in 2009. The number of re-admissions for the same condition within a three-month period decreased from 72,226 in 2004 to 3,488 in 2008. It is not clear, however, that all of these gains can be attributed to the project, as progress was evident prior to the project period.

**Table 4. Average Length of Stay and Hospital Beds/1,000 Population, All Hospitals, 1991- 2010**

	<i>ALOS</i>	<i>Hospital beds/1,000</i>
1991	14.4 <sup>a</sup>	5.79 <sup>a</sup>
1995	14.2 <sup>a</sup>	5.42 <sup>a</sup>
2000	12.2 <sup>a,b</sup>	5.06 <sup>a,b</sup>
2001	11.8 <sup>b</sup>	4.93 <sup>b</sup>
2002	11.5 <sup>b</sup>	4.83 <sup>b</sup>
2004	11.8 <sup>c</sup>	4.94 <sup>a</sup>
2005		4.70 <sup>b</sup>
2006		4.63 <sup>b</sup>
2008	6.25 <sup>c</sup>	
2009	5.9 <sup>c</sup>	4.5 <sup>b</sup>
2010	5.8 <sup>c</sup> ; 6.13 <sup>c</sup>	

Source: Gjorgjev 2006(a); World Development Indicators(b); HIF and project documents(c)

4.31 In addition, actual hospital rationalization was limited. The structure of HIF expenditure during and immediately following the project period has not shifted away from hospitals and toward primary care, as would be expected from a process of hospital rationalization (Table5).

**Table 5. Distribution of HIF Payments by Type of Provider (listed as percentage of total HIF allocations to providers), 2003-2011**

	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
Hospitals	42.04	37.21	37.47	42.70	35.10	32.14	35.17	36.29	34.89	39
Outpatient specialists	24.79	24.95	26.49	20.64	28.87	31.08	30.32	29.41	31.08	30
Primary care	28.94	33.30	33.00	33.40	32.51	33.92	31.82	30.87	30.3	27
Medical devices	1.40	1.30	1.78	1.92	2.18	2.06	1.84	2.20	2.71	2
Treatment abroad	1.22	1.66	0.93	1.19	1.31	0.76	0.84	1.20	1.00	1
Other	1.61	1.58	0.33	0.15	0.03	0.04	0.01	0.03	0.02	1
TOTAL	100	100	100	100	100	100	100	100	100	100

Source: Milevska-Kostova 2011

4.32 Hospital rationalization appears to have been limited for two reasons. First, closing or downsizing of hospitals has proved impossible due to political considerations, as populist governments have been unwilling to take this essential step. In 2005, for example, there was a plan to close one hospital in the small city of Priyaholanka, near the Bulgarian border, where only 17 percent of capacity was being used and another, larger hospital was within a

one-hour drive. A huge public protest stopped the closure, however, with a group of NGOs – widely assumed to be financed by opposition political parties – blocking the highway leading to the hospital.

4.33 Second, the provider payment reforms have been incompletely implemented. The DRG-based payment is widely seen as an activity independent of “real” payments for hospital services, as it constitutes only 20 percent of total hospital budgets. To a great extent, hospital budgets are still based on historic costs. Furthermore, in order for restructuring schemes to be efficient, health facility managers need management autonomy, decision power about hiring staff, and training and decision-making capacity to change the input mix (for example, firing staff in order to increase availability of drugs), reinvest profits from efficiency gains toward improvements in quality and processes of care, merge facilities and close inefficient departments, and contract out services (laundry, cleaning, etc.) to the private sector. Hospital managers still have limited autonomy and flexibility to respond to new financial incentives under the case-based payment schemes (Schneider 2007). In late 2007 and early 2008, the government presented to the Bank team a proposed framework for a new Health Provider Law that was to give more autonomy to health care institutions to allow them to respond appropriately to new sets of imperatives and incentives. Overall, the Bank found the proposed framework to be an excellent model of provider autonomy. A working group chaired by the deputy health minister was charged with translating that framework into specific legal language by the end of February 2008. However, at that same time, the Minister of Health indicated that other legal options for achieving the same goal were also on the table. The Bank team stressed that any new legal framework would have to grant hospital management and administration the flexibility to deal in a proactive and autonomous manner with operational issues and constraints, including financing, staffing, and asset management, with a minimum level of day-to-day control by the MOH and HIF. By April of 2008, it was clear that political obstacles were going to block the adoption of a new law in this area, and the law was removed as a core condition for the Bank’s third PDPL.

4.34 Despite shortcomings, progress in restructuring hospital services is rated **Substantial**. Primary care and family medicine, whose strengthening is a prerequisite for rationalization of the inpatient sector, were restructured with wholly new forms of ownership and provider reimbursement. Diagnosis-related groups were introduced in hospitals, and although their impact is currently limited by their relevance to only 20 percent of hospital budgets, the project made important progress in their creation, the training of personnel in their implementation, and overcoming political hurdles to their use. There was progress on key indicators related to hospital restructuring, with reductions in average length of stay, hospital beds per capita, and readmissions, and increases in outpatient surgeries.

## 5. Efficiency

5.1 **Efficiency is rated Substantial.** The economic analysis conducted for the Project Appraisal Document assigned the major share of anticipated project benefits to improved HIF revenue collection and expenditure management, finding a Net Present Value (NPV) of net benefits by 2011 of 5.86 billion Dinars (approximately US\$ 118.3 million), at a 10 percent discount rate, from improved revenue collection, and 5.6 billion Dinars (US\$

114million), at a 10 percent discount rate, from improved expenditure management. This calculation was predicated on reasonable assumptions that the benefits would start accruing in 2007, with increased revenues of 5 percent in 2007, 7 percent in 2008, 9 percent in 2009, and 10 percent in 2010 and 2011. These estimates indicated benefits that far outweighed costs.

5.2 The economic analysis conducted at the Implementation Completion and Results Report (ICR) stage, using actual revenues of the HIF for the period 2004-2009 and estimated revenues for 2010-2015 (based on an actuarial analysis conducted in March 2011), found benefits even larger than those estimated at the time of appraisal. According to the ICR, the NPV of net benefits by 2011 at a 10 percent discount rate from improved revenue collection is 7.31 billion Dinars (US\$ 171.4 million), and from improved expenditure management is 6.95 billion Dinars (US\$ 163.0 million). These benefits far outweigh calculated investments of 4.24 million Dinars (US\$ 99,400), over the life of the project, for revenue collection improvement activities, and 226.62 million Dinars (US\$ 5.31 million) for expenditure management improvement activities.

5.3 Indirect benefits of the project were not quantified. However, several realized efficiencies can be expressed in qualitative terms. Reductions in average length of hospital stay increased the efficiency of delivery of medical care. Also, efficiencies are being realized through the competitive procurement of pharmaceuticals and changes in the payment mechanism to providers. Competitive procurement of pharmaceuticals resulted in a savings of US\$ 9 million in 2009 alone. In 2006, administrative costs and personnel input for the issuance of health insurance cards were decreased through an arrangement with the Post Office to issue these cards. Finally, improving the management of the HIF has improved staff performance and efficiency of operations, including reduced waste and fraud through the application of appropriate internal controls established with support from the project.

5.4 However, there were shortcomings. Investments in the health information management system were clearly not efficient. Repeated delays and interoperability issues have resulted in a situation where some investments will have to be repeated, and the government had to take direct responsibility for investments that initially were to be covered by the project.

5.5 Also, according to many observers, political factors resulted in decreased efficiency. Many key personnel at the MOH, HIF, and health care institutions are appointed based on party affiliation or political background, and when a political shift takes place – which is often, in the Macedonian context – much experience and training is lost as people are replaced, and those with experience and institutional memory are not consulted going forward. According to several interview respondents, because of this turnover of personnel, Bank staff and consultants had to give the same lectures and presentations on a variety of topics – drug price rationalization, co-payments, the basic benefits package – over and over again, often with the same consultant being paid multiple times to deliver the same product.

## 6. Ratings

### Outcome

6.1 The project's Outcome rating is **Moderately Satisfactory**. The project's objectives were substantially relevant to country conditions at the time of appraisal, and to the Bank's current Country Partnership Strategy. Project design was substantially relevant, with a solid results chain logically connecting development objectives to expected outcomes and project activities. The MOH's and HIF's institutional capacities were improved, with the HIF in particular having made significant strides in financial management, insurance coverage, and contracting with providers. The MOH, however, exhibited a pattern of developing strong policies that stalled before or during implementation, resulting in a rating of Modest for the first objective. The second objective to restructure hospital services was substantially achieved. Prerequisite development of primary care was carried out through privatization and the implementation of capitation payment models, and the foundation for implementation of case-based hospital payments was introduced. There was improvement on such indicators as average length of hospital stay, although hospital managers still do not have the necessary autonomy to respond completely to new incentive structures, and political factors have prevented savings through reprofiling or closing of excess capacity. Economic analyses show that the project's net benefits far outweighed its costs in the areas of revenue collection and expenditure management, indicating substantial efficiency.

### Risk to Development Outcome

6.2 Financial risk is moderate. Bank support to the health sector has continued through a Development Policy operation and a Policy Based Guarantee operation (Table 1); both of these include health policy reform areas (the former on continuing improvements in financial management and control, and the latter on the adoption of a revised Basic Benefits Package consistent with available financing resources for the health sector, as well as a review of health insurance for the unemployed). In addition, an Institutional Development Fund grant for about US\$ 0.5 million was approved in April 2011 to support the establishment of a modern accreditation system to help monitor and evaluate the quality of care providers. However, health care institutions are still accumulating arrears, largely due to incomplete implementation of DRGs, although the health ministry also blames increases in heating and drug costs, new equipment purchases, and the expanded care needs of an aging population. As of mid-2012, hospitals were accruing 1.5 million Euros/month in added debt. This system is not sustainable.

6.3 Institutional risk is moderate. The project's attention to management training and capacity building (including the MOH, HIF, and health care institutions) has entrenched modern approaches as part of the general management culture in the sector, particularly in the HIF. However, knowledgeable and experienced project staff have not been integrated into regular MOH and HIF structures; although such integration was discussed and deemed acceptable by project leadership, the issue was not resolved into the project grace period, even while these staff continued support to project completion activities. Key procurement and financial management staff have moved on to other positions outside of government.

6.4 Political risk is moderate. The most important reassurance of sustainability is the commitment across the political spectrum to the development objectives of an improved public sector. These objectives are strongly linked to the EU accession agenda, which is a broadly owned strategic goal of the country. However, the MOH, HIF, and other institutions' ownership and commitment to sustaining gains, though relatively strong at this time, could wane if new managers are appointed and priorities change. Much also depends on the Bank's continued involvement, as stakeholders agree that one of the Bank's most important contributions throughout the project period was the authority and trust it held with the government and its consequent ability to facilitate progress despite changing political winds and agendas. In the absence of a follow-on Bank investment project, the "reform atmosphere" is widely reported to be waning.

6.5 **Overall risk to development outcome is rated Moderate.**

### **Bank Performance**

6.6 **Ensuring Quality-at-Entry is rated Moderately Satisfactory.** Project design benefited from a functional review conducted during preparation, funded by the UK Department for International Development (DfID); this review found that there was an urgent need to realign the MOH toward the core roles and functions of policy formulation and implementation, priority setting, monitoring health systems performance, and coordination. Key lessons were learned from the HSTP, as well as from other health reform projects in the region. These included the need for: (i) government ownership and active involvement by government agencies during implementation; (ii) a realistic and flexible timetable for implementation, to allow management of political risk; (iii) realistic assessment of capacity for implementation; (iv) effective pairing of policy dialogue with efficient and transparent project coordination and implementation; (v) strong technical assistance, training, and information system development to support policy changes; (vi) public relations activities to ensure public buy-in for reforms and to prevent unrealistic expectations; (vii) involvement of local experts and end users in investment decisions; (viii) increase of in-house capacity of the MOH; and (ix) effective monitoring and evaluation.

6.7 However, there were shortcomings. Although most risks were adequately identified and mitigated (low project ownership by MOH; potential rapid turnover of senior policy officials; failure of providers to respond adequately to incentives for improving quality and efficiency; and the relatively ambitious nature of Component 1), the PAD did not include an assessment of risk associated with institutional arrangements, which called for MOH to be responsible for overall project management and implementation. Having the Project Principal Coordinator, a high-level MOH officer, devote 20 percent of work time to the project was unrealistic. Supervision missions noted that the dual position led to frequent absence from the ministry and unavailability for project management, making it difficult to provide the necessary guidance and oversight to project management staff. However, some of the coordinators responded that their dual MOH-project identities provided an essential link between the government and the project. Overall, the benefit of having the deputy minister coordinate the project accrues only if the deputy minister has access and influence with the minister, which is not automatically the case, and the project coordinator does not have to be a deputy minister in order to secure that access and influence.

6.8 There were also shortcomings related to M&E. The indicators did not attempt to measure results of improved capacity building, and many of the indicators were not formulated to capture the development objectives appropriately, measuring broad sectoral progress rather than project-specific contributions.

6.9 **Quality of Supervision is rated Moderately Satisfactory.** Supervision was intense, with frequent missions. Project supervision was carried out in conjunction with the design and supervision of the concurrent adjustment operations, ensuring consistency in policy dialogue and in the messages delivered by the Bank to the government at the macro and micro levels. The Bank team demonstrated flexibility at various stages of implementation to make adjustments to project interventions and provide more focus, better reflect evolving needs, and more closely align project activities with the overall reform agenda. In particular, the Bank team provided close support to conceptualize overall information management and to guide the procurement, testing, and delivery of equipment for the IHIS throughout the country prior to closing.

6.10 The Bank team worked through difficult communications between the Bank's procurement staff and the staff of the HIF to ensure that international competitive bidding (ICB) could be implemented. In the 2007 ICB procurement, 70 percent of bidders did not fill out the bidding documents properly, and their bids were rejected. The Bank, HIF management, and a special commission for procurement enforced requirements consistently and effectively. A new tender was carried out, and compliance with tendering procedures improved dramatically (World Bank 2009a).

6.11 Task team leadership (TTL) changed four times during the life of the project. According to many stakeholders, frequent changes of TTL presented an obstacle to continuous and effective Bank support to the project, with changes sometimes occurring at critical times. The engagement of Bank staff in the country office was most helpful in ensuring continuity in the Bank team.

6.12 The Bank team also experienced shortcomings in: (i) ensuring that the results framework was formally amended, as recommended at the Mid-Term Review (informally, the project began to report on two additional indicators: one regarding execution of Grants, and the other reporting on the amount of contributions and contributors to HIF separately); (ii) ensuring formal changes to the institutional arrangements that called for MOH and HIF staff to be appointed Project Coordinators; (iii) ensuring that comprehensive Progress Management Reports were prepared regularly and included assessments of progress and challenges; and (iv) persuading the government to proceed promptly with the procurement of hardware and software for the IHIS (because of delays in this area, there was a second extension of the project's closing date).

6.13 Disagreements remain about provisions made early in the project period for eventual post-project employment of PCU staff by the MOH. Several of those staff claim that these commitments were broken due to lack of support from Bank management, while the MOH and Ministry of Finance claim that full-time positions could not be offered to these PCU staff due to lack of funds. In any event, there was significant investment in capacity and

institutional memory that is now not being used, and it is not the case that most or all of these staff are now employed under better conditions in the private sector.

## **Borrower Performance**

6.14 **Government Performance is rated Moderately Satisfactory.** During project design, the Government engaged in detailed discussions during and in between missions, providing written comments on options to be explored and ways to finance various aspects of the reform, including technical assistance. During implementation, the government (particularly the Ministry of Finance) demonstrated commitment to the project as part of the broader reform agenda supported by the various Bank-financed adjustment operations. Support from the Ministry of Finance was particularly instrumental in offsetting internal and external opposition to reforms, especially in pharmaceutical procurement (World Bank 2005).

6.15 Incremental recurrent costs were to be financed by the Loan on a declining basis, starting at 95 percent and ramping down to 25 percent after January 2008; however, due to lack of counterpart financing, the Loan financed this category at 100 percent of expenditures. The same situation applied to goods and training, which were initially to be financed at 83 percent for goods procured locally and 83 percent for local consultants; instead, the Loan financed these categories at 100 percent. The higher-than-anticipated contribution from the government reflects higher expenditures than initially estimated for recurrent costs, which went beyond amounts available under the Loan. During the last years of implementation, the MOH budget was able to cover the additional needs.

6.16 The MOH demonstrated flexibility at various stages of implementation to make adjustments to project interventions to provide more focus, better reflect evolving needs, and more closely align project activities with the overall reform agenda. However, weak project management capacity in MOH and weak inter-institutional collaboration between MOH and HIF caused delays. There were several changes in ministers of health (four ministers) and other senior MOH officials during implementation, adversely affecting political commitment and project ownership and ultimately delaying implementation. Each new Minister of Health brought in substantially new staff, creating delays while new personnel were brought up to speed on the project. One year after effectiveness, the Bank requested the appointment of a full-time Principal Project Coordinator, but this did not materialize; it was only during the last year of the project, when it was clear that delays with procurement of hardware were seriously affecting implementation, that the MOH hired a Project Manager to provide overall coordination with the PCU. Also, the MOH did not respond to repeated Bank reminders to issue a formal request to institute refinements to the development indicators. Finally, the MOH did not maintain the Policy Analysis Unit until completion of the project, as stipulated in the Loan Agreement, despite the Bank's offering of US\$ 50,000 from the Dutch Trust Fund to hire individuals for an initial period; the MOH argued that the National Public Health Institute adequately performs the policy analysis function.

6.17 Early support from the HIF was uneven. There was management discontinuity (a change in HIF director in 2003), a lack of familiarity with international competitive bidding, and the need to deal with strong opposition from local pharmaceutical distributors, who

anticipated that drug procurement reform would expose them to increased competition (World Bank 2005). HIF commitment and capacity improved dramatically during implementation.

**6.18 Implementing Agency Performance is rated Moderately Satisfactory.**

Constraints in project management were identified at an early stage, including weak coordination among financial management, procurement, and planning of component activities. One year after Loan effectiveness, limited progress had been made with project implementation. To get the project back on track, the Bank requested that the MOH pay special attention to the performance of the project management structure, including improving communications with and between Coordinators and Assistant Coordinators and establishing working groups. Changes in the PCU necessitated training of new staff, causing delays.

6.19 In practice, MOH and HIF staff who were appointed as Project Coordinators did not devote adequate time to the project, as they had other responsibilities in their respective institutions, resulting in consultants in the PCU (who held the formal position of Assistant Coordinators) functioning as de facto Component Coordinators. Primary responsibility for implementation and continuity fell on these Component Coordinators as a result of the frequent turnover at higher levels of administration and management.

6.20 The PCU played an important role in M&E. The PCU component coordinators took the lead in monitoring indicators. Indicators were monitored regularly and reported in aides memoire. However, the PCU did not prepare systematic quarterly progress reports, as required in the operations manual, and the reports that were prepared were not comprehensive for the entire project. In addition, there were occasional problems with coordination among PCU staff that led to shortcomings with acceptance of works, among other issues.

6.21 Financial management performance was uneven over time, with significant and lasting improvement occurring only in 2009 and 2010. Audits were on time and unqualified. Procurement performance was also mixed. Changes in staffing resulted in the hiring of at least one procurement officer who lacked experience with procurement under Bank-supported operations, necessitating a large amount of on-the-job training with the help of the Bank. At some points during implementation, there was limited coordination between procurement and financial management planning, and procurement plans included activities well beyond the budget available under the project. This issue was rectified and procurement management improved during the last two-and-a-half years of the project, with the PCU effectively managing complex procurement processes related to hardware for the IHIS.

## **Monitoring and Evaluation**

6.22 **M&E Design:** The Project Appraisal Document outlined a comprehensive plan for monitoring and evaluation, with precisely specified output and outcome indicators, and linkages of those indicators to the project's planned activities and achievement of objectives. The M&E plan further specified anticipated additional uses for the project's outcome data, including guidance to the Prime Minister and other high-level government entities on the

functioning of the MOH, HIF, and overall health reform process. There was a clear timeline for data collection and analysis, and explicit assignment of responsibility for various types and levels of data collection. Progress on some of the project's indicators could not be attributed directly or only to the project, however, measuring progress in the entire health sector rather than just the project. It was also not clear during design that resources were specifically and adequately allocated for data collection, and that data were available for each indicator.

**6.23 M&E Implementation:** While the Policy Analysis Unit was to be responsible for evaluating the impact of project activities and monitoring project performance indicators for the duration of the project, the PCU component coordinators actually took the lead in obtaining data. Three types of indicators were monitored and reported regularly: results indicators associated with investments and expenditures; intermediate indicators associated with implementation of the project's components; and outcome indicators aimed at measuring progress in achievement of objectives. Most project indicators were closely related to official state statistical data, and the quality and availability of official data are low in Macedonia. Most reliable information comes from the HIF, as physicians have incentives to respond to HIF requests. Overall, attention to M&E during project implementation was relatively low, with data collection on project indicators done mainly in specific preparation for the Bank's mid-term review and ICR missions.

**6.24 M&E Utilization:** M&E was used not only as a management tool to evaluate the status of implementation of activities, but also to inform policy makers for decision-making purposes, specifically to help prioritize activities to support the reform agenda.

**6.25** Quality of Monitoring and Evaluation is rated **Modest**.

## 7. Lessons and Conclusions

**7.1 Close coordination of policy lending and investment lending can greatly facilitate achievement of reforms.** In this case, health reforms supported by the project and health aspects of the adjustment operations were supervised closely by the same health team, ensuring that policy dialogue with the government was consistent and linked to the overall macro-level dialogue between the government and the Bank. Importantly, although the policy lending included reforms across several sectors, there was a sustained sector focus on health that was central to achieving important synergies with the investment operations.

**7.2 Political obstacles can be overcome with effective planning and consultation – but will be insurmountable otherwise.** An appropriate political enabling environment and incentive structure, achieved through careful political economy analysis and planning, were crucial for the success of reforms supporting family medicine and DRGs. Hospital rationalization and reform of the basic benefits package, however, have withered in the face of presumed political impossibility. Furthermore, where possible, sheltering project implementation from politics allows focus on implementation and appropriate attention to desired outcomes. In this project, the appointment of the deputy prime minister as project coordinator resulted in frequent personnel turnover (as ministers changed) and resultant delays in project activities. The need for independent, stable project management trumps any

benefits that may accrue from presumed proximity to the health minister. The project manager should be chosen by agreement between the Bank and the MOH as a bridge person, someone with political access but who is not reporting and subject to the MOH on a daily basis.

**7.3 Information technology (IT) components of health sector reform frequently encounter delays, whose risk can be mitigated through careful planning and flexibility.**

IT components should begin implementation as soon as possible, so that the technology keeps pace with the other project elements it is supporting, and they should be sufficiently flexible to adapt to projects as they evolve. Ideally, Bank teams should directly incorporate IT experts to prevent and manage delays and inefficiencies.

**7.4 Qualified regional experts can be extremely effective as consultants and trainers.**

Family medicine and other experts from Slovenia and other former Yugoslav countries, with their in-depth local knowledge, provided a valuable complement to Western subject-matter experts. These consultants also contributed important demonstration effects of successful reform in other parts of the region.

**Epilogue.** Restructuring post-socialist health care systems is invariably a lengthy and politically contentious process that involves both strengthening of long-neglected primary care and rationalizing the hospital sector (Streveler 2009). Generally, these steps are sequenced, with attention paid first to primary care and then, once capacity has been developed to absorb the increased demand for primary care that will result from hospital rationalization, increased efficiencies sought from the inpatient side. In Macedonia, primary care development and hospital rationalization were implemented practically simultaneously. The Bank was instrumental in overcoming political opposition to the primary care reforms, resulting in a swift and successful privatization process, shift to a capitation model of payment, and acceptance of family medicine that proceeded much more rapidly and smoothly than in other countries in the region. Hospital rationalization, however, has been partially stymied by political factors, and full realization and consolidation of the project's objectives will depend on consistent political commitment. Without a follow-on Bank investment project, many observers and stakeholders question whether that commitment is likely to be forthcoming. The best promise for continued reform may stem from the lure of EU accession, which will demand demonstration of competent and efficient public sector management.

## References

- Buble, Tonći. 2010. "Technical Assistance on Pricing and Reimbursement Policy of Pharmaceuticals in Macedonia." Ministry of Health, Republic of Macedonia.
- Burazeri, Genc, Ulrich Laaser, Vesna Bjegovic, Lidia Georgieva. 2005. "Regional Collaboration in Public Health Training and Research among Countries of South Eastern Europe." *European Journal of Public Health* 15(1): 97-99.
- Center for Research and Policy Making. No date. "Rationalization of Health Care Services in Macedonia. Case Studies: Skopje, Tetovo, Sveti Nikole, Negotino." Skopje.
- Colombini, Manuela, Bernd Rechel, and Susannah H. Mayhew. 2012. "Access of Roma to Sexual and Reproductive Health Services: Qualitative Findings from Albania, Bulgaria, and Macedonia." *Global Public Health* 7(5): 522-534.
- Delva, Wim, Françoise Guillaume, Stijn Vansteelandt, Patricia Claeys, Hans Verstraelen, Davy Vanden Broeck, and Marleen Temmerman. 2008. "HIV Testing and Sexually Transmitted Infection Care among Sexually Active Youth in the Balkans." *AIDS Patient Care and STDs* 22(10): 817-821.
- Dimeski, Branko K. 2011. "A Review of Public Health Reforms (1991-2010): An Experience from Macedonia." *Webmedcentral Public Health* 2(9).
- Donev, Donev M. 1999. "Health Insurance System in the Republic of Macedonia." *Croatian Medical Journal* 40(2).
- \_\_\_\_\_. 2004. "Revitalization of Academic Medicine in Macedonia – An Urgent Need." *Croatian Medical Journal* 45(6): 677-683.
- Dredge, Robert. 2005. "Inception Report of the Policy Analysis Unit Advisor." Ministry of Health, Republic of Macedonia.
- DRG Working Group. 2010. "Annual Report, January-December 2009." Health Insurance Fund, Republic of Macedonia, Skopje.
- Eikemo, Terje Andreas, Nartijn Huisman, Francesca Perlman, and Kristen Ringdal. 2009. "Educational Health Inequalities in Former Yugoslavia: Evidence from the South-East European Social Survey Project." *European Journal of Public Health* 20(6): 640-646.
- European Commission. 2007. "Social Protection and Social Inclusion in the Former Yugoslav Republic of Macedonia."
- Farley, Donna O, Robert Nordyke, and John W. Peabody. 1997. "Economic Efficiency of the Macedonian Health System: Analysis of Government and Household Survey Data." Report DRU-1695-WB, The RAND Corporation, Santa Monica, CA.
- Gerovski, Filip. 2011. "Compliance with International Standards on Patients' Rights and Implementation of the Law on the Protection of Patients' Rights in the Republic of Macedonia." *Medicine and Law* 30: 179-186.
- Gjorgjev, Dragan, Angelina Bacanovic, Snezana Cicevalieva, Zlate Sulevski, and Susanne Grosse-Tebbe. 2006. "The Former Yugoslav Republic of Macedonia: Health System Review." *Health Systems in Transition* 8(2): 1-98.
- Goldman, Robert L. 1999. "Primary Health Care in the Reforms of the Health Care System: An Analysis of Reformation Schemes of Emerging and Developing Countries as Applied to the Republic of Macedonia." *Health Marketing Quarterly* 17(2): 87-93.
- Government of Macedonia. 2000. "Health Insurance Law." *Official Gazette* 25.
- \_\_\_\_\_. 2005. "Law on Health Insurance." *Official Gazette* 119.

- Hajioff, Steve, Gordana Pecelj, and Fimka Tozija. 2000. "The Former Yugoslav Republic of Macedonia: Health Care Systems in Transition." European Observatory on Health Care Systems, Who Regional Office for Europe, Copenhagen.
- Health Insurance Fund of Macedonia. 2004. "Godishen Izveshtaj: 2003" (in Macedonian). Skopje.
- \_\_\_\_\_. 2005. "Godishen Izveshtaj: 2004" (in Macedonian). Skopje.
- \_\_\_\_\_. 2006. "Godishen Izveshtaj: 2005" (in Macedonian). Skopje.
- \_\_\_\_\_. 2007. "Godishen Izveshtaj: 2006" (in Macedonian). Skopje.
- \_\_\_\_\_. 2008. "Annual Report: 2007." Skopje.
- \_\_\_\_\_. 2009a. "Annual Report: 2008." Skopje.
- \_\_\_\_\_. 2009b. "Strategic Plan: 2010-2015." Skopje.
- \_\_\_\_\_. 2011. "Annual Report: 2010." Skopje.
- \_\_\_\_\_. 2012. "Annual Report: 2011." Skopje.
- International Bank for Reconstruction and Development and International Finance Corporation. 2007. "Country Partnership Strategy for the Former Yugoslav Republic of Macedonia for the Period FY07-FY10." Report No. 38840-MK. Washington, DC. .
- International Monetary Fund. 2006. "Former Yugoslav Republic of Macedonia: 2006 Article IV Consultation – Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for the Former Yugoslav Republic of Macedonia," IMF Country Report No. 06/344. Washington, DC.
- Ivanovska, Liljana, and Ilir Ljuma. 1999. "Health Sector Reform in the Republic of Macedonia." *Croatian Medical Journal* 40(2).
- Janevic, Teresa, Pooja Sripad, Elizabeth Bradley, and Vera Dimitrievska. 2011. "'There's No Kind of Respect Here.' A Qualitative Study of Racism and Access to Maternal Health Care among Romani Women in the Balkans." *International Journal for Equity in Health* 10(53).
- Jasovic-Siveska, Emilija, and Vladimir Jasovic. 2011. "Demographic Characteristics in Preeclamptic Women in Macedonia." *Revista Medica de Chile* 139: 748-754.
- Jeffery, Heather E., Mirjana Kocova, Fimka Tozija, Dragan Gjorgiev, Marina Pop-Lazarova, Kirsty Foster, Jan Polverino, David A. Hill. 2004. "The Impact of Evidence-Based Education on a Perinatal Capacity-Building Initiative in Macedonia." *Medical Education* 38: 435-447.
- Karadzinska-Bislimovska, Jovanka, J. Minov, Snezana Risteska-Kuc, S. Stoleski, D. Mijakoski, S. Todorov, Vera Basarovska, Marija Kisman-Hristovska, and Teuta Agai-Demjaha. 2010. "National Survey on Identifying Vulnerable Workers and Availability of Occupational Health Services in the Republic of Macedonia." *Medicina del Lavoro* 101(4): 262-275.
- Kjosev, Sasho and Pece Nedanovski. 2008. "Health Care System in the Republic of Macedonia: Current Situation and Development Perspectives." *RevistaTinerilorEconomisti*1(11): 71-77.
- Lazarevik, Vladimir. 2010. "Policy Interventions to Tackle Health Inequities in Macedonia: Patient Rights and Reference Pricing of Pharmaceuticals." *Macedonian Journal of Medical Sciences* 3(1): 57-60.
- Menon, Soniya. 2006. "Decentralization and Health Care in the Former Yugoslav Republic of Macedonia." *International Journal of Health Planning and Management* 21: 3-21.
- Milevska-Kostova, Marija Gulija, Ivana Tomovska, and Kiril Jakimovski. 2011. "Equity in Health in Macedonia: Socio-Economic and Financial Aspects and Effects of Policy Changes on the Access to Prescription Medicines in Primary Healthcare." Unpublished research paper.
- Ministry of Health of the Republic of Macedonia. 2007. "Health Strategy of the Republic of Macedonia, 2020: Safe, Efficient, and Just Health Care System." Skopje.

- \_\_\_\_\_. Health Sector Management Project, Project Coordination Unit. 2006. "Strategy for the Development of Macedonian Integrated Health Information System." Skopje.
- Minov, Jordan, Jovanka Karadzinska-Bislimovska, Kristin Vasilevska, Zlatka Nelovska, Snezana Risteska-Kuc, Saso Stoleski, and Dragan Mijakoski. 2012. "Smoking among Macedonian Workers Five Years after the Anti-Smoking Campaign." *Archives of Industrial Hygiene and Toxicology* 63: 207-213.
- Nordyke, Robert J. 2000. "Privatization of Health Care Provision in a Transition Economy: Lessons from the Republic of Macedonia." Dissertation, RAND Graduate School. Santa Monica, CA.
- \_\_\_\_\_. 2002. "Determinants of PHC Productivity and Resource Utilization: A Comparison of Public and Private Physicians in Macedonia." *Health Policy* 60: 67-96.
- Nordyke, Robert J., and John W. Peabody. 2003. "Market Reforms and Public Incentives: Finding a Balance in the Republic of Macedonia." *Social Science & Medicine* 54: 939-953.
- Onceva, Silvana, Doncho Donev, and Ilija Gligorov. 2001. "Tobacco Smoking, Alcohol and Drug Consumption among Youngsters in the Republic of Macedonia." *Medical Archive* 55(1): 27-28.
- Peabody, John W., Robert J. Nordyke, Fimka Tozija, Jeff Luck, Jorge A. Muñoz, Anne Sunderland, Karen De Salvo, Ninez Ponce, and Charles McCulloch. 2006. "Quality of Care and Its Impact on Population Health: A Cross-Sectional Study from Macedonia." *Social Science & Medicine* 62: 2216-2224.
- Peabody, John W., Fimka Tozija, Jorge A. Munoz, Robert J. Nordyke, and Jeff Luck. 2004. "Using Vignettes to Compare the Quality of Clinical Care Variation in Economically Divergent Countries." *HSR: Health Services Research* 39(6): 1951-1970.
- Petrova, G.I. 2001. "Monitoring of National Drug Politic: Regional Comparison between Bulgaria, Romania, Macedonia, Bosnia Herzegovina." *Central European Journal of Public Health* 9(4): 205-213.
- \_\_\_\_\_. 2002. "Prescription Patterns Analysis: Variations among Bulgaria, Romania, Macedonia, and Bosnia Herzegovina." *Central European Journal of Public Health* 10(3): 100-103.
- Rechel, Bernd, and Martin McKee. 2009. "Health Reform in Central and Eastern Europe and the Former Soviet Union." *The Lancet* 374:1186-95.
- Schneider, Pia. 2007. "Provider Payment Reforms: Lessons from Europe and America for South Eastern Europe." Policy Note, World Bank, Washington, DC.
- Seiter, Andreas. 2010. *A Practical Approach to Pharmaceutical Policy*. The World Bank, Washington, DC.
- Shosholcheva, Marjana, Dragan Gjorgiev, and Fimka Tozija. 2011. "Attitude of the Macedonian Intensivists Regarding Withdrawal of Therapy in Intensive Care Patients: Curriculum for Policy Development." *Medical Archives* 65(6): 339-342.
- Spiroski, Igor, Zlatanka Dimitrovska, Dragan Gjorgiev, Vladimir Mikik, Vesna Efremova-Stefanoska, Daniela Naunova-Spiroska, and Vladimir Kendroski. 2011. "Nutritional Status and Growth Parameters of School-Age Roma Children in the Republic of Macedonia." *Central European Journal of Public Health* 19(2): 102-107.
- Streveler, Dennis J. 2009. Summary of "Health Management Information Systems: Linking Payers and Providers: A 2009 Update," chapter 5 in John C. Langenbrunner, Cheryl Cashin, and Sheila O'Dougherty, *Designing and Implementing Health Care Provider Payment Systems: How-To Manuals*. World Bank and United States Agency for International Development. Washington, DC.
- World Bank. 1996. "Staff Appraisal Report, Former Yugoslav Republic of Macedonia, Health Sector Transition Project." Report No. 15399-MK. Washington, DC.
- \_\_\_\_\_. 2002. "FYR of Macedonia: Public Expenditure and Institutional Review," Report No. 23349-MK. Washington, DC.
- \_\_\_\_\_. 2003. "Implementation Completion Report on a Loan/Credit/Grant to the Former Yugoslav Republic of Macedonia for a Health Sector Transition Project." Report No. 25735-MK. Washington, DC.

- \_\_\_\_\_. 2004. "Project Appraisal Document on a Proposed Loan in the Amount of US\$ 10 million to the Former Yugoslav Republic of Macedonia for a Health Sector Management Project." Report No. 2770-MK. Washington, DC.
- \_\_\_\_\_. 2005. "Implementation Completion Report on a Loan/Credit/Grant to the Former Yugoslav Republic of Macedonia for a Public Sector Management Adjustment Loan 2 (PSMAL 2)." Report No. 34473-MK. Washington, DC.
- \_\_\_\_\_. 2007. "FYR of Macedonia: Public Expenditure Review." Washington, DC.
- \_\_\_\_\_. 2009a. "Implementation Completion and Results Report on Programmatic Development Policy Loans in the Amounts of US\$ 30 million, US\$ 30 million, and US\$ 25 million to the Former Yugoslav Republic of Macedonia." Report No. ICR00001117. Washington, DC.
- \_\_\_\_\_. 2009b. "Program Document for a Proposed First Programmatic Development Policy Loan in the Amount of EUR 20.5 million (US\$ 30 million equivalent) to the Former Yugoslav Republic of Macedonia." Report No. 50883-MK. Washington, DC.
- \_\_\_\_\_. 2009c. "Project Appraisal Document on a Proposed Loan in the Amount of Euro 19.3 million (USD 25 million equivalent) to the Former Yugoslav Republic of Macedonia for a Conditional Cash Transfers Project." Report No. 47195-MK. Washington, DC.
- \_\_\_\_\_. 2010. "Country Partnership Strategy for the Former Yugoslav Republic of Macedonia for the Period FY11-FY14." Report No. 54928-MK. Washington, DC.
- \_\_\_\_\_. 2011a. "Implementation Completion and Results Report for the First Programmatic Development Policy Loan in a Total Amount of EUR 20.5 million (US\$ 30 million equivalent) to the Former Yugoslav Republic of Macedonia." Report No. ICR00001958. Washington, DC.
- \_\_\_\_\_. 2011b. "Implementation Completion and Results Report on a Loan in the Amount of US\$ 10 million to the Former Yugoslav Republic of Macedonia for a Health Sector Management Project." Report No. ICR00001691. Washington, DC.
- \_\_\_\_\_. 2011c. "Program Document for a Proposed Policy Based Guarantee of EUR 100 million (US\$ 134.9 million equivalent) to the Former Yugoslav Republic of Macedonia." Report No. 59914-MK. Washington, DC.
- \_\_\_\_\_. 2012. "Program Document for a Proposed Public Expenditure Policy Based Guarantee in the Amount of EUR 155 million (US\$ 201.5 million equivalent) to the Former Yugoslav Republic of Macedonia." Report No. 72845-MK. Washington, DC.
- World Health Organization. 2011. "Country Cooperation Strategy at a Glance."
- Zantea-Naumoska, Magdalena, and Polenakovic Momir. 2008. "Sixty Years since the Foundation of the Medical Faculty at the SS Cyril and Methodius University in Skopje, R. Macedonia (1948-2007)." *Contributions (Journal of the Macedonian Academy of Sciences and Arts)*XXIX(1): 303-307.

## Annex A. Basic Data Sheet

### FORMER YUGOSLAV REPUBLIC OF MACEDONIA HEALTH SECTOR MANAGEMENT PROJECT (P086670)

#### Key Project Data (amounts in US\$ million)

	Appraisal estimate	Actual or current estimate	Actual as percent of appraisal estimate
Total project costs	11.34	11.62	102.46
Loan amount	10.00	9.56	95.60
Cofinancing	1.34	2.06	153.00
Cancellation	0.00	0.44	0.00

#### Cumulative Estimated and Actual Disbursements

	<i>FY05</i>	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>FY09</i>	<i>FY10</i>	<i>FY11</i>
Appraisal estimate (US\$M)	0.15	2.55	6.55	9.00	10.00	10.00	10.00
Actual (US\$M)	0.61	0.64	1.75	4.12	5.05	5.75	9.56
Actual as percent of appraisal	406.66	25.09	26.71	45.77	50.050	57.50	95.60
Date of final disbursement: 05/11/2011							

#### Project Dates

	Original	Actual
Initiating memorandum	10/07/2003	10/07/2003
Negotiations	03/15/2004	04/15/2004
Board approval	04/29/2004	05/13/2004
Signing	07/15/2004	07/15/2004
Effectiveness	09/15/2004	09/15/2004
Closing date	06/30/2009	12/31/2010

**Staff Time and Cost**

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
<b>Lending</b>	No. of staff weeks	US\$ Thousands (including travel and consultants costs)
FY04	52	236.88
<b>Total:</b>	<b>52</b>	<b>236.88</b>
<b>Supervision/ICR</b>		
FY05	34	100.38
FY06	42	116.96
FY07	31	80.78
FY08	51	91.59
FY09	38	97.74
FY10	26	107.79
FY11	11	63.91
<b>Total:</b>	<b>197</b>	<b>659.15</b>

**Mission Data**

Names	Title	Unit	Responsibility/ Specialty
<b>Lending</b>			
Jan Bultman	Sr. Health Specialist	ECSHD	Team Leader
Lorraine Hawkins	Sr. Economist	ECSHD	Economist
Silviu Radulescu	Health Specialist	ECSHD	Health
Rajna Cemerska	Project Officer	ECSS2	Operations
Monique Mrazek	Pharmaceutical Specialist	HNP	Pharmaceuticals
Lazslo Balkanyi	Health Information Systems Consultant	ECSHD	IT
Anna Wielogorska	Sr. Procurement Specialist	ECSHD	Procurement
Maria Gracheva	Operations Officer	ECSHD	Operations
Rossen Papazov	Financial Management Officer	ECSS2	FM
Sarbani Chakraborty	Health Specialist	ECSHD	Health Economics
Gryorgy Novotny	Project Management (Consultant)	ECSHD	Project Manag.
<b>Supervision/ICR</b>			
Jan Bultman	Sr. Health Specialist	ECSHD	Team Leader
Dominic Haazen	Sr. Health Specialist	ECSHD	Team Leader
Daniel Dulitzky	Sr. Economist	ECSHD	Team Leader

Names	Title	Unit	Responsibility/ Specialty
Nedim Jaganjac	Sr. Health Specialist	ECSHD	Team Leader
Zarko Bogoev	Operations Officer	ECSS2	Procurement
Marija Gulija	Health Specialist	ECSHD	Health
Rajna Cemerska-Krtova	Operations Officer	ECSH3	Operations
Sar bani Chakraborty	Sr. Health Specialist	EASHH	Health/economics
Olav Rex Christensen	Senior Public Finance Specialist	HDNED	Public Finance
Anna Wielogorska	Sr. Procurement Specialist	ECSHD	Procurement
Aleksandar Crnomarkovic	Financial Management Specialist	ECSO3	Financial Manag.
Marija Gulija	Health Specialist Consultant	ECSHD	Health
Zlatan Sabic	Information Technology Spec.	ECSHD	IT
Kari L. Hurt	Senior Operations Officer	ECSH1	Operations
Johannes Koettl	Economist	ECSH4	Economics
Augustina M. Nikolova	Senior Program Assistant	CFPPM	
Jasminka Sopova	Program Assistant	ECCMK	
Johanne Angers	Sr. Operations Officer	ECSHD	ICR TL
Betty Hanan	Implementation Specialist (Consultant)	ECSHD	ICR Author



## Annex B. List of Persons Met

- **World Bank**

Andreja Arsovski, Medical Director, Remedika General Hospital (first Principal Project Coordinator)

Denis Bosovski, Operations Analyst, Acting Country Manager (June 2012)

Rajna Cemerska, Operations Officer

Dominic Haazen, Task Team Leader (2004-2008)

Nedim Jaganjac, Task Team Leader (2010-2011)

Sofija Karagjorgjeva, Financial Expert, Project Implementation Unit, GEF Sustainable Energy Project (HSMP Financial Management Expert)

Vladimir Lazarevik, Founder and CEO, Healthgrouper (fourth Principal Project Coordinator)

Gordana Majnova, Deputy Head, Department for Quality Health Services (third Principal Project Coordinator)

Evgenij Najdov, Economist, Central Asia Regional Office (Task Team Leader for Macedonia Development Policy Loan)

Nikola Panovski, Professor of Microbiology, Medical Faculty of State University (second Principal Project Coordinator)

Vladimir Popovski, Head of Clinic, University Clinic for Maxillofacial Surgery (fifth and last Principal Project Coordinator)

Zorica Uzunovska, Assistant Project Coordinator

Katerina Venovska, Assistant Project Coordinator

Anna Wielogorska, Senior Procurement Specialist

- **Government of Macedonia**

Branko Adzigov, Director of Supervision and Public Relations, Health Insurance Fund

Zhaklina Chagorska, IT Advisor, Ministry of Health

Tatjana Lukanovska, Finance Director, Health Insurance Fund

Maja Parnardzieva-Zmejkova, General Manager, Health Insurance Fund

Kristina Pavlovska, Department of International Finance, Ministry of Finance

Vasilka Salevska-Trajkova, Cabinet of the Minister, Ministry of Health

Georgi Trenkoski, Director, Health Insurance Fund (2006-2009)

- **Other**

Kocho Chakalaroski, Head, Doctors' Chamber

Dragan Gjorgjev, Policy Advisor, Institute for Public Health

Vladimir Kendrovski, Institute for Public Health

Katarina Stavrik, Head, Family Medicine Education Center, Skopje

Sasha Stojchev, Chief Executive Director, City General Hospital 8 September, Skopje

Fimka Tozija, Policy Advisor, Institute for Public Health

## Annex C. Tables

**Table 6. HSMP Outcome Indicators**

<i>Indicator</i>	<i>Baseline</i>	<i>Target</i>	<i>Achievement</i>
<b>OBJECTIVE # 1: UPGRADE MOH AND HIF CAPACITY TO FORMULATE AND EFFECTIVELY IMPLEMENT HEALTH POLICIES, HEALTH INSURANCE, FINANCIAL MANAGEMENT, AND CONTRACTING OF PROVIDERS.</b>			
Amount of collected HIF contributions	14.9 billion Dinars (2004)	5% increase	15.2 (2005), 16.5 (2006), 19.7 billion Dinars (2009), increase of 13.2%
Number of contributors to HIF	91, 957 (2004)	5% increase	80,305 (2006), 83,000 (2007), 110,451 (2010), increase of 12% -- includes 90,146 paying contributors and 20,805 people whose contributions are being paid by the government
Administrative costs and personnel input for the issuance of health insurance cards	n/a	Reduction	Indicator became irrelevant through a 2006 arrangement for the Post Office to issue health insurance cards
Number of drugs purchased in non-HIF contracted pharmacies and reimbursed by HIF	105,334 drugs, 84.2 million Dinars (2004)	Reduction	95,462 drugs, 76.3 million Dinars (2005) 133,666 drugs, 267.2 million Dinars (2006) 14% decrease (2009)
Out-of-pocket payments for health care and drugs among groups eligible for HIF co-payment waivers	Data not available	Decline	Data not available
Clinical guidelines developed according to international standards and distributed	18: 15 for primary care and 3 for secondary care	15	Original 18 were updated and 14 more were developed; all were distributed in hard and soft copy and made available on-line; implementation status is unclear
Yearly HIF audits acceptable	n/a	Annual unqualified audits	Achieved, with comments in management letters decreasing in substance and number since 2004 (26 recommendations in 2004; 21 in 2005; 19 in 2006)
Average length of drugs registration process, for all drugs	Eight months (2003)	25% decrease	Five months (2006); 15 days for centralized procedures, three months for decentralized procedures, and three months for mutual recognition procedures (2009)
All practicing doctors, dentists, and pharmacists licensed in accordance with new procedures (2004	0% (2004)	100%	100% (2010)

<i>Indicator</i>	<i>Baseline</i>	<i>Target</i>	<i>Achievement</i>
transfer of licensing authority to medical chambers)			
<b>OBJECTIVE # 2: DEVELOP AND IMPLEMENT AN EFFICIENT SCHEME OF RESTRUCTURING OF HOSPITAL SERVICES WITH EMPHASIS ON DEVELOPING DAY-CARE SERVICES AND SHIFTING TO PRIMARY CARE.</b>			
Average length of stay, all hospitals	11.5 days (2002)	Decrease by 15%	6.13 days (2010), a 53% reduction
Outpatient surgeries for select indications	13,151 (2005)	20% increase	41,500 (2009)
Number of hospital readmissions for the same condition within a three-month time period	72,226 (2004)	30% decrease	3,488 (2008)
Number of referrals to outpatient specialists and to hospitals	2,139,361 to outpatient specialists (public and private, 2004)	10% decrease	10% decrease (2009)
Number of contracted health care providers complying with newly developed clinical guidelines	n/a	30%	Full data not available. All providers are supposed to be using guidelines, but full compliance may be limited due to lack of necessary medical equipment.

Source: ICR, Implementation Status Reports, Aides-Memoire

**Table 7. HSMP Output/Intermediate Outcome Indicators**

<i>Indicator</i>	<i>Baseline</i>	<i>Target</i>	<i>Achievement</i>
Medium-term MOH health sector strategy developed and approved	No strategy (2004)	Strategy completed	Strategy completed and adopted for period 2005-2015 (2006), extended to 2020 in June 2007
Public information strategy for health reform developed and applied to health sector policy development	No strategy (2004)	Strategy developed	Strategy developed and adopted in February 2007, with strategy and implementation plan revised in 2009 and 2010
HIF Board structure and operation revised	HIF Board was not performing financial oversight function (2004)	Board structure and operations revised	Board structure and operations were revised, with four-year appointments and functions specified in operational manual
Hospital contracts revised on the basis of evaluation study of first phase of hospital contract implementation	17 contracts concluded (2004)	Revised contracts	Contracts for all hospitals are now signed annually using new provider payment mechanisms
Contracted primary health	n/a	75%	PHC 88%, Hospitals 70%

<b><i>Indicator</i></b>	<b><i>Baseline</i></b>	<b><i>Target</i></b>	<b><i>Achievement</i></b>
care providers are correctly collecting and analyzing data for contract compliance			(2005) PHC 90%, Hospitals 75% (2006) 100% (2010)
Business plans prepared according to standards by health care institutions	No plans developed	n/a	100% (2010)
Public expenditure tracking survey of funding for priority public health services completed (baseline and one follow-up)	No survey	1	No survey was undertaken, but a Public Expenditure Review in 2008 included detailed information on public health expenditures
Action Plan for improving revenue collection based on external audit of HIF	No plan	Implementation of Action Plan	Action Plan was prepared and implemented, including recommendations by the State Audit Office, which now conducts annual audits of HIF
Project deliverables implemented and evaluated in an efficient manner and on a timely basis	n/a	Activities completed	All activities completed, but quarterly progress reports for the entire project were not prepared systematically

Source: ICR, Implementation Status Reports, Aides-Memoire