Document of
The World Bank

Report No: 36436

IMPLEMENTATION COMPLETION REPORT
(SCL-45130)

ON A

LOAN

IN THE AMOUNT OF US$26.2 MILLION

TO THE

REPULBIC OF CROATIA

FOR A

HEALTH SYSTEM PROJECT

June 28, 2006

Human Development Sector Unit
South Central Europe Country Department
Europe and Central Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective May 17, 2006)

Currency Unit	=	Croatia Kuna (HRK)
HRK 1.00	=	US$ 0.18
US$ 1.00	=	HRK 5.17

FISCAL YEAR

January 1 - - December 31

ABBREVIATIONS AND ACRONYMS

ALOS	Adjusted Length of Stay
CAS	Country Assistance Strategy
CVD	Cardiovascular Disease
DO	Development Objective
DRG	Diagnostic Related Group
EMS	Emergency Medical Services
EU	European Union
GDP	Gross Domestic Product
GP	Group Practice
HSP	Health System Project (the "Project")
HZZO	State Health Insurance Fund
ISR	Implementation Status Report
MoHSW	Ministry of Health and Social Welfare
NBF	Non-Bank Financed
NIPH	National Institute of Public Health
NMS	New Member States of the European Union
NPV	Net Present Value
PAD	Project Appraisal Document
PAL	Programmatic Adjustment Loan
PHC	Primary Health Care
PHRD	Population and Human Resource Development
PMU	Project Management Unit
QAE	Quality at Entry
QAG	Quality Assurance Group
WHO	World Health Organization

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REPUBLIC OF CROATIA
Health System Project

CONTENTS

Project ID: P051273	*Project Name:* Health System Project
Team Leader: Shiyan Chao	*TL Unit:* ECSHD
ICR Type: Core ICR	*Report Date: June 26, 2006*

1. Project Data

Name: Health System Project
L/C/TF Number: SCL-45130
Country/Department: CROATIA
Region: Europe and Central Asia Region

Sector/subsector: Health (94%); Central government administration (6%)
Theme: Health system performance (P); Injuries and non-communicable diseases (S); Conflict prevention and post-conflict reconstruction (S)

KEY DATES		*Original*	*Revised/Actual*
PCD:	06/01/1998	*Effective:*	03/28/2000	03/29/2000
Appraisal:	04/30/1999	*MTR:*	07/17/2002	07/17/2002
Approval:	10/05/1999	*Closing:*	12/30/2005	12/30/2005

Borrower/Implementing Agency: GOVERNMENT OF CROATIA/MINISTRY OF HEALTH AND SOCIAL WELFARE
Other Partners:

STAFF	Current	At Appraisal
Vice President:	Shigeo Katsu	Johannes F. Linn
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2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: S
Sustainability: L
Institutional Development Impact: M
Bank Performance: S
Borrower Performance: S

	QAG (if available)	ICR
Quality at Entry:		S
Project at Risk at Any Time:	No	

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

Context. The Health System Project (2000-2005) was the second Bank-supported health operation in Croatia. It followed immediately after the completion of the first Health Project (1995-1999) -- a post-conflict operation, supporting the development of essential primary and emergency care services as well as supporting the development of the new state health insurance fund. At the time of the Health System Project's preparation (1998-1999), Croatia's growth was stalling due to delayed structural reforms and the negative impact of the Kosovo conflict on investment and tourism. A key Government strategy for restoring growth was to reduce the public sector's involvement in the economy and the resulting burden on the tax base and labor market. Public expenditures accounted for about 54 percent of GDP -- a large percentage even in comparison to other transition economies. Public health expenditures alone accounted for about 8 percent of GDP in 1999 up from 7 percent in 1995. Expenditures were growing due to generous state health benefits, few incentives for limiting demand for or the provision of health services, and the pressure for financing new and more expensive technologies and pharmaceuticals. Financing from the social health insurance system was not sufficient for the health services being provided or for maintaining the existing health services network. Deficits of the health insurance fund (HZZO) to the health providers and of the health providers to suppliers were a constant drain on the budget as calls were made to clear the arrears to the health providers and suppliers. Clearly measures were needed for reducing health expenditures, improving its efficiency and increasing the manageability of the system. The Bank's Country Assistance Strategy for Croatia (June 1999 and updated in September 2001) included the Health System Project to address the medium term health structure issues to reduce public expenditures and increase efficiency as well as structural adjustment lending to support more short-term fiscal sustainability measures.

Development Objective (DO). In general, the Health System Project (HSP) was to build on the successes of the first Health Project, but was also to begin addressing the underlying structural conditions that were leading to the situation of increasing public health expenditures and arrears as described above. HSP was to accomplish this by completing the health sector's recovery from the war; addressing priority public health and health service issues; and building the capacity and knowledge base for further health sector reform. Specifically and according to the Project Appraisal Document (PAD), the Health System Project's objective was to ***enhance Croatia's capacity to achieve a more effective, efficient, and financially sustainable health system in the medium term,*** through: (a) strengthening institutional capacity within the health sector; (b) introducing pilot delivery system improvements and a national heart disease program; (c) strengthening public health activities; (d) developing policy options that will increase the sector's financial sustainability; (e) improving and expanding the health information system; and (f) disposing of outdated and unusable pharmaceuticals.

Assessment of DO. The objective of enhancing Croatia's capacity to achieve a more effective, efficient and financially sustainable system was an appropriate objective given the described context. It focussed on building capacity for the necessary structural reforms because at that point there was no clear strategy for achieving these objectives and there was no stakeholder consensus in Croatia on what exactly should be done. The accomplishment of the DO was to be measured by the preparation of a strategy for the next stage of restructuring and development of Croatia's health system, based in part on the information gained and lessons learned from implementing the various project components. This is also determined to be appropriate given that it was recognized that the HSP would be the first of a long series of reforms. Finally, an investment loan to address structural reforms through technical assistance and other needed investments together with a structural adjustment loan to address more immediate fiscal reforms is

consistent with good practice.

3.2 Revised Objective:

The original project objectives were not revised during project implementation.

3.3 Original Components:

To achieve the Project Objective, the Project had five original components, organized and described as follows:

Component A: Health Service Delivery System (total estimated cost US$26.4 million, of which Bank financing US$18.5 million). This component consisted of two main subcomponents:

Subcomponent A1: Primary Health Care (PHC). This subcomponent was to support the development of group practice pilots in Koprivnica for medical group practices through the provision of medical equipment, training and technical assistance in financial management.

Subcomponent A2: Hospitals and Secondary Services. This subcomponent was to support the reform of hospital and secondary services by providing technical assistance to develop a strategy for restructuring and rationalization of the acute care unit in the Koprivnica Hospital; development of demonstration programs for alternative levels of medical care including day surgery, hospice, respite, home and ambulatory care; and provision of resuscitation/monitoring equipment for twenty county emergency rooms and equipment for two cardiac diagnostic centers in Zagreb to provide sophisticated secondary prevention services.

Component B: Public Health (total estimated cost US$1.5, of which Bank financing US$1.0 million). This component consisted of two main subcomponents:

Subcomponent B1: Health monitoring and program evaluation. This subcomponent was to support a series of initiatives building on activities of the first Health Project, including surveys, data collection, analysis and reporting, national health planning and strategy development, health promotion training, and media advocacy campaign.

Subcomponent B2: National health promotion. This subcomponent was to support the Croatia National Institute of Public Health (NIPH) for a unit a specializing in health promotion; national health planning and strategy development; health promotion training; and a strong media advocacy campaign will be developed and implemented as a tool of the health promotion.

Component C: Pharmaceutical Waste Disposal (total estimated cost US$3.8 million, of which Bank financing US$3.1 million). The subcomponent was to dispose of unusable or outdated pharmaceutical materials, donated during the period of war, and which now represent a hazard to segments of the population and the environment, using methods consistent with international environmental best practices and acceptable to the World Bank.

Component D: System-Wide Initiatives (total estimated cost US$6.9 million, of which Bank financing US$5.3 million). The component was to support the strengthening of systems to support the first three components and to provide essential building blocks for regulatory, governance, and management initiatives. Initiatives were to include: support for new management information systems in the Koprivnica

hospital and county that integrate clinical, administrative, and financial information; development of new system to collect and analyze patient-level data; development of clinical protocols that would incorporate pharmaceutical protocols; development of formal standards for facilities and guidelines for care; development of a department within the Ministry of Health and Social Welfare (MoHSW) to supervise and coordinate these activities; development of inter-related simulation models for health revenues and expenditures; and training of practice managers to create a new cadre of experts to provide administrative and managerial support for PHC groups.

Component E: Project Management (total estimated cost US$1.3 million, of which Bank financing US$1.1 million). The component was to support the establishment and operation of a Project Management Unit (PMU) within the MoHSW to be responsible for implementing the Project, monitoring progress of the four primary components, ensuring the proper sequencing of studies, pilots and expansion activities, and maintaining all required records and management systems.

Assessment of Project Design. The design of the Project components was clearly linked to the Project objective described above. The design took into account lessons learned during the implementation of the first Health Project in Croatia regarding the capacity of local stakeholders and the best means of project implementation. It also took into consideration the lessons learned in the region about the structural drivers of increased health expenditures and the need to address those fundamental issues. The Project design was focussed on providing Croatia information and tools for addressing those structural issues, including demonstrating/testing some of the service delivery reforms needed to increase cost-effectiveness of health services, which seems to have been an appropriate strategic choice at the time in order to further define a reform strategy and build stakeholder awareness and agreement. The project design also included an innovative component to dispose of outdated pharmaceutical materials donated to Croatia during the war and which was a potential health and environmental hazard. A strength of the project design which was also a detriment, was its considerable allocation of Loan funds for technical assistance to develop capacity and address knowledge gaps. The Croatian Government had a history of not wanting to use significant resources for technical assistance, particular for external consultants. The Project design and particularly Component D relied on the use of a considerable amount of technical assistance which did not take into account this experience.

3.4 Revised Components:

The components were not substantively revised during implementation. Upon the MoHSW request and due to savings and a reduction of some component activities, Subcomponent A2 was extended to support the initial development of telemedicine to improve the efficiency and effectiveness of health care on the Croatian islands; and Component D was extended to support the upgrade of sanitary and hygiene facilities in targetted hospitals.

3.5 Quality at Entry:

ICR QAE - Satisfactory. Quality at Entry (QAE) is rated satisfactory, based on the (i) consistency of the Project objectives with the priority sector issues; (ii) the incorporation of lessons learned in Croatia and in health sector reform of transition countries that were available at the time of preparation, (iii) the ability of the project design to make use of the good capacity of the project's various beneficiaries, (iv) implementation arrangements that were well-integrated into the Ministry; and (v) a project design which accounted for the institutional and capacity constraints by focussing on information and tools development. The PAD documented the project and its background well. The PAD identified political will and lack of capacity, among others, as identified risks. In hindsight though the identified risks and mitigation plan did

not sufficiently address whether the Croatian Government, over several years and political cycles, would be able to maintain the commitment and capacity necessary to undertake the service delivery reforms being sought -- a complex set of activities involving careful coordination of national level policies and the local level efforts to reorganize service delivery -- in one specific county of the country. Koprivnica county was originally identified due to its willingness to participate in the Project, good reputation for implementation, and the endorsement of the MoHSW -- the latter of which did automatically transfer from one Government to the next. Other health projects in the region were at the same time being developed using pilots as a key instruments of Project design. In general, pilots for the purposes of systemic reforms have not led to the desired learning outcomes and have been difficult to replicate and scale up.

The project was consistent with the Bank's Country Assistance Strategy (CAS) for Croatia, which was discussed by the Board in June 1999 and updated in September 2001, and which called for "a reduction in fiscal expenditures to maintain fiscal balance and accommodate tight monetary policy. Measures need to address issues of the size and role of the state and efficiency of public administration. A reduction in social expenditures through pension and health system reforms is essential. Public expenditures need to be reduced, and managed efficiently and with transparency." Specifically the CAS provided support for urgent macro stabilization and financial sector reforms, as well as for deeper structural measures required for sustainable growth. Key policy objectives to achieve this were: (i) reducing the size of the public sector and increasing efficiency; (ii) improving governance; (iii) creating conditions for competitive real sector development; and (iv) containing poverty. The HSP Project was an essential element of the CAS supported program to achieve these objectives.

QAG QAE - Not Available. A Quality at Entry Assessment was not conducted by the Quality Assurance Group for this Project.

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

Achievement of Development Objective – Moderately Satisfactory (Satisfactory according to ratings available in Section 2). As previously noted, the Health System Project's objective was to ***enhance Croatia's capacity to achieve a more effective, efficient and financially sustainable health system in the medium term***. According to the original performance monitoring indicators (see Annex 1), the achievement of the Development Objective was to be measured by the preparation of a strategic plan for the restructuring and development of Croatia's health system and the consideration of that plan by Croatian decision makers. This performance indicator is appropriate given that the Project was designed to provide information and experience with restructuring as a first step towards determining the path by which Croatia would further restructure its health system.

The achievement of the Project's development objective is determined to be moderately satisfactory based on a couple of key considerations. First, a Croatian National Health Strategy was adopted by the Croatian Government on March 22, 2006. It includes many of the concepts on the restructuring of the health service network and improving provider payment system, initiated under the HSP, including reducing public health expenditures, rationalizing hospital activities through regional networks, accreditation and categorization, and increasing the role and incentives of the primary health care system to reduce hospital admissions. Given the importance of this strategy, a brief description is provided in Section 10 of this report. The achievement of this indicator is not rated as fully satisfactory given that the strategy is still a high-level document without a clear implementation plan. The MoHSW has initiated the development of implementation plans for a couple of key components of the strategy (hospital payments based on

diagnostic related groups, hospital sector restructuring and categorization as well as accreditation), but they are not yet significantly progressed. Additionally, originally it was envisaged that the strategy would be based on an evaluation of the implementation of a pilot restructuring of services in Koprivnica-Križevci County. As will be discussed below, the pilot did not inform the development of the strategy to the extent that was envisaged because of the delay in the investments; the policy decision not to change the payment systems to reflect the change in service provision for a single county, but to wait until it could be done nationally; and insufficient focus on the evaluation framework for the reforms.

The second key consideration is an acknowledgement that through the Project, the Bank remained engaged with the Croatian government to improve the financial sustainability of the health system – the key sector issue underlying the objective of the Project as described at the beginning of this report. This engagement led to a new Health Insurance Law in 2002 that introduced co-payments for selected services in the basic-benefit package, with higher rates for hospital and specialist services, diagnostic service and prescription drugs and led to the health sector financing study completed in April 2004 which informed the Government of the key elements of the insurance system driving health expenditures. Unfortunately, the Law also allowed HZZO to offer complementary insurance to cover these co-payments in order to increase revenue and public support for the measure which then limited the impact of the co-payments on tempering demand. As the Bank has an on-going health sector dialogue with the Government and health spending remains a large component of public expenditures, actions to further improve the sustainability of the health sector were included in the on-going Programmatic Adjustment Loan (PAL) series. It is unlikely that the Bank and Croatian Government's health financing policy dialogue would be as long and consistent without the Project as much of the Project supervision resources went towards engaging the Government on these issues. Whereas public health sector expenditures were about 8.0 percent of GDP in 1999, they declined to about 6.8 percent in 2004 (Health For All Database). Indications are, however, that public expenditures again increased and are now around 8.0 percent (Bank estimate) again signaling the need to redouble efforts especially on the supply of health services.

4.2 Outputs by components:

Without repeating the information entirely, the following section and the ratings given rely significantly on the status of the Project performance monitoring indicators described in detail in Annex 1.

Component A: Health Service Delivery System (total actual cost US$25.3 million, of which Bank financing US$19.8 million) - Moderately Satisfactory. The higher than expected Bank-financed contribution (107 percent) was a result of savings identified in Components C and D and that the restructuring plan, upon which the investments were planned for Subcomponent A2, was developed during implementation.

Subcomponent A1: Primary Health Care - Moderately Satisfactory.

This subcomponent is rated as moderately satisfactory because it established six group practices, or 24 GP/nurse teams which operate on morning/afternoon shifts in 12 primary health care offices at two different sites, in Koprivnica-Križevci County. Upgraded infrastructure, equipment and training were provided. However, the group practices are not yet legally or financially organized as originally planned, thus limiting the impact of the component. The groups are currently operating based on shared resources and coordinated schedules. However, there is not yet a basis for legally establishing a physician group practice and, therefore, no means of financing a group practice. The recently adopted Government strategy includes the provision of providing GP group practices with fund-holding responsibility in order to increase the incentive of the primary health care system to refer to more specialized or in-patient care.

Subcomponent A2: Hospitals and Secondary Services - Moderately Satisfactory.

This subcomponent is rated as moderately satisfactory for several reasons. First, it did develop a strategy for restructuring and rationalizing acute care in the Koprivnica Hospital. The restructuring strategy was well developed and included the introduction of sub-acute care and an emergency department at the hospital while also reducing the number of in-patient beds. The strategy was developed in 2001 and agreed among all key stakeholders, as documented in a Memorandum of Understanding, in June 2002. Discussions with the stakeholders reveal that the restructuring strategy was very much owned and understood by the local counterparts, particularly the administration of Koprivnica-Križevci County hospital, the hospital management and staff. A change in the political party forming the national Government followed the 2003 elections. The strategy became less understood or owned by the national Government that came into power at that time as the "Koprivnica Pilot" and the policy decisions implied by the pilot design was viewed as a legacy of the previous Government formed by a competing party (although the Project was originally prepared with a Government of the same party affiliation as the 2003 Government). The hesitation of the Government was in part a misunderstanding of the concept of a pilot. Rather than seeing it as an opportunity of learning from both good and bad lessons, it saw the pilot activities as an implementation strategy for national restructuring which it was not ready to endorse for both political and technical reasons at that time. The need to develop the understanding and agreement of the national government to continue the pilot, as well as the desire of the County to co-finance the investments to complete the developed hospital master plan, delayed the completion of the investments. The works for implementing the strategy were initiated in November 2004. The Bank-financed work completed just prior to Loan closure. The County-financed works on the laboratory building were at that time still underway. Complete ownership of the pilot at the national level as a demonstration of reforms for evaluation and possible national replication was never fully regained.

Second, as per the agreed restructuring strategy, emergency and alternative sub-acute care was established at the hospital, including a modern emergency department, day surgery capacity, and out-patient psychiatric services. Extensive training was provided to the hospital especially in terms of quality assurance and the running and operating an emergency department. The staff of the Koprivnica Hospital are seen by their peers as a real resource in these areas and have been provided training and advice to other hospitals. Although the physical investments were not yet complete, the emergency department in the hospital was established in March 2003 and took responsibility for providing 24-hour service in May 2004. During a one-year period (June 2004 to June 2005), the new emergency department treated 12,414 patients of which only 26 percent needed to be admitted to the hospital and 12 percent were treated in the day hospital with average length of stay of 2 hours. The new services were not fully operational at the time of the ICR preparation as the physical investment had just been completed. Additionally, there was a policy decision at the national level that payment methods different than those in practice in the country (i.e. performance based payments to GPs and payments to hospitals for sub-acute care) could not be piloted in Koprivnica-Križevci County and would have to wait until they were adopted nationally. Therefore, the provision of the new services at the hospital are not supported by changes in the payments to the hospitals that would provide further incentives to maximize the potential of the sub-acute care and minimize in-patient admissions.

Finally, as per project design, the Project did equip the emergency wards in all 21 general hospitals in Croatia with resuscitation and life support equipment; six resuscitation training centers were established; 347 physicians, nurses, and medical technicians were trained in life support and internationally certified of which 131 qualified as instructors; two cardiac diagnostic centers in Zagreb were provided equipment and supply of consumables to provide sophisticated secondary prevention services; and the Institute for Emergency Medical Services in Zagreb was reorganized and equipped with new digital telecommunication system incorporated in the national network for emergency services, allowing for better management of the

emergency of services in Zagreb and a reduction in average response times from 30 to 9 minutes. Around the time of the mid-term review, support for telecommunication/telemedicine was added to the Project and by the time of Loan closure 7 primary health care and 7 diagnostic centers in targeted Croatian islands to link them with 7 referral centers in Split and Zagreb. This system was put into operation shortly before Project completion.

Component B: Public Health (total actual cost US$1.8 million, of which Bank financing US$1.6 million) - Satisfactory. The higher than planned cost of the component (160 percent) was due to the financing of some activities planned under the National Heart Disease Component (i.e. training) in Component B due to the links with the advisory service selected for health promotion.

Subcomponent B1: Health monitoring and program evaluation - Satisfactory.

This subcomponent is rated as satisfactory because it accomplished its key activity -- a national household health survey was carried out in 2003 to provide comprehensive, population-based data on health status at the national and regional level, and to create the basis for tracking changes in relevant behavior that affects health risks for the future. The results were disseminated through a series of seminars to policy makers, public health professionals, and non-governmental organizations. The professional exchange between the Croatian public health professionals at the School of Public Health and the Canadian professionals contracted under this component was very well received, resulting in significant capacity development and skill transfer. The Croatian public health professionals continue to analyze the findings of the survey, presenting the results, publishing papers based on the survey in several scientific journals (including the British Medical Journal); and plan to repeat the survey in 2008 in order to track the changes in relevant behavior that affects health risks in future.

Subcomponent B2: National health promotion - Satisfactory.

This subcomponent is rated as satisfactory because it supported the further development of the unit established under the first Health Project, specializing in health promotion and health promotion training at the Croatian National Institute of Public Health (NIPH). The unit received training in health advocacy, health promotion planning and the preparation of health promotion activities. Twelve public health professionals received practical health promotion training in Canada. Three city/county public health institutes were established in Zagreb, Rijeka and Split. A health promotion advocacy campaign was developed and implemented in 2001-2003. The health promotion unit continues to implement health promotion activities, but on a project-by-project basis mainly depending on external grants which it receives from private organizations and other donors.

This component had the potential of being rated as highly satisfactory. The current Government has not prioritized public health and there is no longer consistent budget financing for a national health promotion campaign. The capacity and institutions are available to implement a national campaign when and if the Croatian Government would again prioritize health promotion.

Component C: Pharmaceutical Waste Disposal (total actual cost US$1.7 million, of which Bank financing US$1.3 million) - Highly Satisfactory. The lower than expected cost of the component (45 percent) was a result of lower than estimated pharmaceutical waste – 1324 tons rather than 2400 tons -- which was only identified after it had been collected.

This subcomponent is rated as highly satisfactory because it managed to efficiently and effectively deal with the problem of expired and otherwise outdated pharmaceutical and other medical materials left over from the war – a problem of high importance to the Government and which posed a health threat to the population and risk to the environment. The disposal of the materials was sensitive both technically – ensuring compliance with safety and environmental standards – and publicly – requiring assurance that the disposal would be safe. Significant technical work was done during preparation to ensure that the proper

safeguards would be in place. In the end, the Project supported technical services to collect and sort more than 1,722 tons of pharmaceutical waste from more than 250 different locations around the country; 1.329 tons of pharmaceutical waste were then transported and incinerated at a plant in Zagreb; 394 tons of other waste was disposed of as municipal waste at the closest municipal recycling site or landfill; and 85 tons of fly-ash were exported and safely disposed in Germany. The export of the fly-ash was a change in plan developed during implementation in order to address a safety issue that arose with the original proposal. The Croatian Institute of Toxicology which monitored this component confirmed that all pharmaceutical waste was properly disposed of and the sites properly cleaned. This component demonstrated the most cost effective and environmentally safe procedure for disposal of pharmaceutical waste left-over from humanitarian assistance during a war.

Component D: System-Wide Initiatives (total actual cost US$3.2 million, of which Bank financing US$2.7 million) – Unsatisfactory. The lower than expected cost of the component (46 percent) was due to the MoHSW decision at the time of the mid-term review to reduce the Loan allocation towards technical assistance and to use its own resources towards the originally intended purposes.

This component is rated as unsatisfactory as it substantially did not achieve its expected outputs or outcomes. The component did complete a comprehensive study of the pharmaceutical approval and financing sector which provided a detailed design of a National Drug Agency; standard operating procedures of a pharmaceutical evaluation committee; ways to mobilize and allocate sufficient funds to finance pharmaceuticals; payment mechanisms that would influence individual physician's prescribing habits; guidelines and protocols regarding the pharmacological dimensions of managing the 15 leading causes of disease in Croatia and the 15 diseases for which prescribing patterns are the most problematic; and education programs of 25 clinical pharmacologists, HZZ0 staff and existing practicing PHC physicians in pharmaco-economics, 15 HZZO staff in management of the rational prescribing monitoring and information processes, and 250 PHC physicians in rational prescribing methods. There was certainly capacity development and knowledge transfer as a result of this study -- the consultants contracted under this component worked with the leading Croatian technical experts, who still exist in Croatia and inform pharmaceutical policy. The broader recommendations and policies though resulting from this work though have yet to be adopted.

Other studies that were to be completed under the component were done with either Bank or MoHSW resources. The Bank completed a health sector financing study in April 2004 analyzing the health insurance and payment system and providing a recommendation for actions to improve the sustainability of the system while the Project supported in-country workshops with stakeholders on health financing and performance based payment systems. The Ministry of Health and Social Welfare did support the development of an inventory of health facilities and the first phase of a study to develop a system of accreditation and categorization. All of this existing work was taken into consideration during the preparation of the recently approved National Health Strategy. The MoHSW is currently initiating further technical assistance using a PHRD Grant for the preparation of a third health project to fill in some of the technical gaps that remained including developing a framework for a national health service master-plan, including reviewing the experience of the Koprivnica-Križevci County pilot; a payment system based on diagnostic related groups, and the second phase of the accreditation and categorization planning which includes development of the necessary legislation and regulations. It is yet to be determined if the PHRD Grant will develop a plan for establishing a national health management information system – one of the significant technical gap remaining from the original project design -- that was initiated under the Project, but dropped due a change in priorities of the Ministry (though a functional network between the HZZO, the public health institutions and the secondary hospital was established in Koprivnica). Finally, the development of a health planning and policy department within the MoHSW was to be developed. It was agreed during Project implementation that the establishment of this department would be supported by

another donor providing grant resources. In the end, this activity too was dropped.

Based on the MoHSW request in 2003, the component design was expanded to include improved sanitary and hygiene conditions in targeted Croatian hospitals in order to improve the quality of care in those institutions. The works were successfully completed by the end of September 2003. As the result, 141 sanitary facilities were reconstructed in 13 hospitals around Croatia.

Component E: Project Management (total actual cost US$1.6 million, of which Bank financing US$0.8 million) - Satisfactory. The higher than expected costs of the component (125 percent) was due to the 1.5 year extension in the Project implementation time period; the lower than expected Bank contribution was because the staff costs as well as other operating expenses were largely absorbed by the MoHSW.

This component is rated as satisfactory as the Project Management was fully operational during the implementation period; contributed to the Project outcomes through its efforts; performed the required functions; was staffed with well qualified individuals; and was, for the most part, integrated well in the Ministry. On this latter point, the Project was managed by a policy-level Project Director who was part of the Ministry's management team and day-to-day professional Project Manager with only a few dedicated administrative and fiduciary staff. Most of the responsibility for implementation was with the Project beneficiaries. In general, this seems to have been a good model. The extent to which the reform objectives of the Project were supported by the Ministry was particularly successful when the Project Director was a senior official in the School of Public Health.

The most significant procurement issue involved a case of a consultant being selected based on false credentials and the disbarment of that consultant. The investigation of this case took considerable Bank staff and PMU time and effort. Additionally, an Independent Procurement Review conducted in May 2006 identified the lack of coordination between the civil works completion schedule (primarily for the Koprivnica Hospital for which the Bank-financed portion completed at the time of loan closure and for which the County financed portion was on-going) and the delivery of the medical equipment and furniture. Some of the equipment delivered to Koprivnica hospital in 2005 under the contracts financed with the loan has not been installed and tested and required training of staff (in use of medical devices) has not yet taken place. Such delays in installation of equipment also have implications on reduced actual warranty period time. Since the same Ministry is in charge of two more Bank-financed projects (the Social Protection Project became effective in 2006 and a third Health Project currently prepared with the financing from the PHRD) both of which include civil works and procurement of medical equipment, lessons learned in Koprivnica would be incorporated in implementation of the new operations.

As can be seen from the above description of Project outcomes, the design of the Project was complex. It could be argued that the Project should have been simpler. Certainly, Component D should have had fewer and more prioritized expectations in terms of analytical studies and institutional developments. In general though, the Project complexity does not seem to be the main cause of the short-comings in the Project outcomes. On the contrary, the benefit of the Project seems to have been the involvement of many stakeholders of the Croatian health system – from several institutions to the national level to dozens of hospitals and hundreds of physicians. The short-comings in the Project outcome and outputs actually seem to be from delayed policy decisions needed at the national level – matching the financing reforms to the restructuring proposals and developing the capacities and analysis needed to develop the detailed implementation plans for the health strategy.

4.3 Net Present Value/Economic rate of return:

A cost-benefit analysis was conducted at Project appraisal time. The analysis recognized that there both

potentially quantifiable benefits as well as those that could not be quantified. From that analysis of the limited set of quantifiable benefits and costs limited to the pilot Koprivnica-Križevci County of 130,000 people, the general conclusion was that for the Government, net costs would outstrip net savings by $484,000 over 20 years and that the overall net present value or NPV was negative (-$1,459,274) based on a discount rate of 6.5 percent (the approximate loan rate). The NPV was larger in magnitude because savings were expected to accrue more in later years rather than in earlier years of the Project life cycle. It was expected that the costs could be and would be absorbed through natural rate of growth of the health budget, assuming that it grew at the same rate as the economy generally. It was estimated that this growth would be more than the net Project costs by more than $38.2 million over 20 years, and a consequently have a positive NPV of $16.31 million.

It is not possible to replicate calculation of the NPV usually actual rather than estimated and assumed values. However, each of the assumptions upon which the original economic analysis was conducted was reviewed (see Annex 3). In summary, the review shows that (i) the economic and fiscal context in which the Project was implemented was in line with and even more favorable than anticipated; (ii) due to implementation delays and lack of evaluation, information needed to update the economic analysis is not available; and (iii) many of the intended benefits are still potential benefits, pending policy decisions on changing the provider payment system and expanding the health services restructuring to a national level.

4.4 Financial rate of return:

Not applicable.

4.5 Institutional development impact:

Overall, the Project's institutional development impact was modest. However, the different institutions involved in the Project need to be looked at separately. First, it is clear that not only the physical capacity of the Koprivnica hospital was improved, but also the technical capacity of the Koprivnica-Križevci County officials and the hospital managers and staff. The information described above provides some preliminary evidence of this, although time for further evaluation is still needed. A clear indicator of the progress of the Koprivnica hospital is the request from their peers for guidance in such areas as setting up a quality assurance system and emergency medicine department. The officials of the County and the hospital staff will be extremely useful resources in the development of the restructuring proposals for the entire country. The technical and human capacity development of other beneficiaries are also clear and these include the national public health institutions -- the School of Public Health and Institute for Public Health, the Institute for Emergency Medical Services in Zagreb, and other emergency centers. At the national level, the institutional development of the MoHSW and the HZZO was enhanced to some extent through technical assistance (i.e. the pharmaceutical study), but was mainly advanced through the technical dialogue with the Bank team. Although improved, the institutional impact of these institutions was significantly less than intended as part of the project design -- with the institutions still requiring the development of the necessary human resources and informational sources for improved policy analysis and planning.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

At the time of project preparation, the Croatian economy was experiencing a recession. However, growth was strong during Project implementation and was even stronger than expected. To some extent, this stronger than expected growth eased the urgency for reduced public spending and undertaking difficult

reform measures. Croatia was under-going a significant political change during project implementation. For the first time since Croatian independence, there was a change in the governing coalition and the center-left parties formed a Government following the 2000 parliamentary elections. A couple of years later, the Government returned to the center-right party in 2003. With the stronger opposition and the demonstration of electoral dissatisfaction with the Government, reforms unpopular with the population and the strong medical unions lobby were more difficult to enact.

5.2 Factors generally subject to government control:

In each of the governing coalitions mentioned above, there were two Ministers of Health, resulting in a total four Ministers of Health during project implementation. The changes in Ministerial management obviously caused some delays while new administrations became familiar with the Project, its objectives, and the requirements of working with the Bank. For example, following the change in Government in 2003, no funds were initially allocated for project implementation in the 2004 budget. Only after considerable efforts of the Bank supervision team and Project Management Unit, did the new Health Administration confirm its commitment to the objectives of the Project and had funds allocated in the updated budget adopted mid-year.

Also, it was a policy decision not to enact legislation -- in part due to the political sensitivities mentioned in 5.1 -- that would specifically allow for the Koprivnica County to fully pilot the activities which it intended to test before policies were adopted nationally, including allowing GP group practices, payments to GP practices that would lead to less referrals, payments to hospitals for sub-acute care. It understood though that the process of enacting special legislation for the pilot to allow Koprivnica to pilot payment mechanisms was different than other counties and to set up the administrative capacity in HZZO to manage the different payment methods would have been onerous. It was also the Ministry of Health's decision not to execute some of the studies and capacity development initiatives, requiring external technical assistance, originally intended under Component D and instead to reallocate those funds for basic hospital infrastructure improvement.

Rather than any overt technical deficiencies in the project design, the delays in decisions, the lack of progress on some of the policy actions needed, and the reduction in Loan funds used for technical assistance was also due to the Government's assessment of the political situation taking into account the increase in political competition (as discussed in 5.1) and the electorate's often very public defense of their health benefits.

The Koprivnica County officials determined that they would wanted to invest in the restructuring of the County Hospital as well in order to complete the developed plan which cost more than the available Loan funds. Securing the local financing delayed the start of the rehabilitation works in order to allow for the County-financed works to be included in the same tender as the Bank-financed works.

5.3 Factors generally subject to implementing agency control:

The Project Management Unit executed the project well and was able to deal with changing teams both within the Ministry and the Bank effectively. There was a significant issue of poor and delayed performance by a consultant which ended up with a Bank investigation. The conclusion was that the Consultant had submitted fraudulent credentials to the Borrower and the Consultant was disbarred. In addition to the factors mentioned above, the poor performance of the consultant generally delayed project implementation and the investigation process took a lot of resources of the PMU and Bank staff.

5.4 Costs and financing:

The total projects were $33.8 million or 85 percent of the original estimate of US$39.9 million. The final Loan amount was US$26.16 million or 90 percent of the original Loan amount following a US$1.7 million cancellation during the last year of project implementation and a final $1.14 million cancellation at Loan closure. The reduced project costs and Loan amount were largely due to savings resulting from less than expected pharmaceutical waste, savings as a result of ICB procurement of equipment, and unexecuted studies. Except for a period of about 6 months in 2004, there were no difficulties with respect to the flow of funds.

6. Sustainability

6.1 Rationale for sustainability rating:

The project sustainability is rated as likely. First, on a **policy level**, the Project objectives and basic approach is even more relevant today than it was in 1999. Croatia has since entered into negotiations to join the EU. Although national health policy is only marginally affected by the process of ensuring that national legislation is consistent with the acquis communautaire, experience of the EU new member states shows that ensuring the fiscal sustainability, efficiency and effectiveness of the public health system is important for controlling fiscal deficits, complying with the Maastricht criteria, creating the fiscal space to absorb EU structural funds financing investment projects and supporting convergence with EU standards. Additionally, the Project's objective and approach have been recently endorsed by the Government-approved national health policy. On the **technical level**, there is considerable ownership and capacity has been developed, particularly at the level of project beneficiaries, i.e. the county officials and hospital managers in Koprivnica, the professionals at the school and at the institute of public health, the professionals at the Institute for Emergency Medicine in Zagreb. There has been some development of technical capacity at the national level, particularly in HZZO, although less than expected according to the Project design. Finally, **on the financial level**, Koprivnica-Križevci County has shown considerable commitment -- financial as well as political -- to the restructuring Project as have the other beneficiaries. As mentioned previously, the provider payment system still does not provide the proper incentives for the full use of the sub-acute care at the hospital so actually at the moment, the in-patient services provided by the hospital are subsidizing the sub-acute care which provides further incentive for ensuring that hospital beds are full and there is high turnover. Additionally, the provider payment system for health services still does not include any contribution for the amortized costs of capital; replacement costs are still to be borne by the owners (national or municipal authorities) of the health facilities. Including capital costs in the payment system and setting up national regulations for rational investments is part of the Bank's on-going dialogue with the Government.

6.2 Transition arrangement to regular operations:

All of the Project investments have already been handed over to the appropriate beneficiaries/authorities. The staff of the Project Management Unit have either transferred to work on the Social Welfare Project being implemented by the same Ministry or are working on the implementation of the PHRD Grant for preparation of a third health investment project. There is one important transition issue as a result of Loan closure. The delays in the implementation of the Koprivnica hospital civil works for which the Bank-financed portion was completed just prior to Loan closure (and for which County-financed works were still on-going), also caused inappropriate sequencing of the supply and installation of new medical equipment for the hospital and the related training of staff (which effectively decreases the operational time of the warranty period). The PMU which still exists as a department in the MoHSW will need to follow-up

with the suppliers of medical equipment to ensure the completion of the installation and training.

7. Bank and Borrower Performance

Bank

7.1 Lending:

The Bank's performance in lending was satisfactory. On the one hand, the Project was highly consistent with the priority health sector issues and the Bank's CAS. The project design was technically appropriate addressing systemic factors for improving the efficiency and effectiveness of the health system, although the political economy risks of focussing on one regional pilot was not foreseen at the time of project preparation. The lessons from implementing the first project in Croatia as well as earlier health system reforms efforts in the region were incorporated into the Project design. Project preparation took the efforts of creating ownership by the local-level beneficiaries, which was evident during implementation. The Bank preparation team was appropriately staffed with the needed health, economics and operational skills. Despite its complexity, the Project took only a little more than one year to prepare for Board approval. There was good working cooperation with WHO during the design of the pharmaceuticals waste disposal component. Finally, the safeguard measures for this sensitive component were adequately included in the Loan Agreement. On the more critical side, the design of Component D on the system wide initiatives was less defined and understood by the Government, even at the time of early implementation, and did not take into consideration Croatia's reluctance to borrow for extensive external technical assistance. Finally, the Project Monitoring Indicators developed during implementation were too many, were sometimes overlapping or duplicative, and were always monitorable.

7.2 Supervision:

The Bank's performance during supervision was satisfactory. The Bank made frequent and timely supervision visits and was adequately staffed with technical and operational skills. The Bank supervision team changed leadership four times during supervision; however, there were core staff of the team that remained constant throughout most of the project implementation period, including the Health Sector Manager and responsible Operations Officer. The Bank used the opportunities of project supervision to engage the Government on health financing policy, while also addressing project implementation issues. Due to the changes in Government's and Ministerial leadership, the Bank had, on several occasions, to develop a relationship with new counterparts, re-develop an understanding of the rationale for the Project and explain the specific requirements related to working with the Bank. The Bank team remained flexible to implementation changes that occurred as a result of implementation constraints (i.e. the need to export the pharmaceutical waste fly ash to a safe storage site rather than converting the fly ash into bricks locally) or additional Ministry priorities (i.e. telemedicine for the islands and upgrade of sanitation facilities in the hospitals), while the objective and focus of the project remained the same. Bank management was involved to address difficult policy and implementation issues. After the change in Government in 2003, there was a time that the pilot project in Koprivnica would not be supported by the national Government. The Bank supervision team, with significant management input and effort of staff based in Croatia, developed the options for the Government which including cancellation of the activity, established deadlines and worked with the counterparts to develop a common understanding which led to the Government's decision to continue with the pilot and extension of the Loan closing date. Implementation did not involve any significant deviations from Bank policies and procedures. One procurement issue involving the fraud and eventual disbarment of a consultant did require significant staff time and resources to address. On the more critical side, there was not an attempt to re-visit the project performance indicators during supervision and, therefore, by the end of the project, there was not a lot of ownership of the original indicators. Finally, there seems to have been a lost opportunity when the Government reconfirmed its commitment of the

Koprivnica pilot in 2004 to make sure that there was a system and framework in place, including the national-level counterparts of the Ministry and HZZO, for monitoring and evaluating the pilot to ensure that the lessons learned were fully incorporated in the national-level policy making.

7.3 Overall Bank performance:

Given the above performance in lending and supervision, **the Bank's overall performance was satisfactory.**

Borrower

7.4 Preparation:

The Borrower's performance in lending was satisfactory. There was close cooperation at the time of preparation between the Government and the Bank. The Borrower was actively engaged during project preparation and provided the necessary political leadership and technical expertise. All of the counterparts required for project implementation were engaged through working groups in the project preparation.

7.5 Government implementation performance:

The Government's implementation performance was satisfactory due to the reasons outlined in Section 4 and 5.2. The macro and fiscal environment in which the Project was implemented was satisfactory and even somewhat better than expected. Despite political changes, each Government supported the objectives and implementation of the Project. Sector policies initiated during Project implementation, such as the introduction of case-based payments for services, caps on services, referrals and prescriptions, and the introduction of per-visit fee helped increased the sustainability of the health system in line with the Project objective. However, there were sector policies that were expected to be introduced during implementation that have not yet been enacted which reduced project impact and these are the legislative framework for GP group practices, PHC payment schemes to GP groups practices that would reduce incentive for referrals, and payments to hospitals for sub-acute services. Except for a period of six months at the beginning of 2004, required project counterpart funds were provided. Except for some of the studies envisaged in Component D, the key project activities were accomplished. The technical counterparts in the beneficiary organizations were especially well qualified to implement the project and use the project's investments for their intended purposes.

7.6 Implementing Agency:

The Implementing Agency's performance was satisfactory due to the reasons outlined in Section 4 and 5.3. The staff of the Project Management Unit were well qualified. The Implementing Agency staff were largely responsible for the re-development of the political support for the Project after the changes in the Government. The Project was quite complex, yet there were no significant procurement or financial management issues caused by capacity constraints. The implementation delays were largely due to factors outside the Project Management Unit's control. Useful Project progress reports were regularly filed with the Bank. The Loan covenants with respect to the disbursement conditions for the pharmaceutical waste disposal component were readily met. As is often the case, with the focus on meeting the challenges of day-to-day implementation, there was insufficient focus on reporting on or even reconsidering the project monitoring indicators as evidenced by the lack of ownership of the indicators at project completion.

7.7 Overall Borrower performance:

Given the above performance during preparation and implementation, **the overall performance of the**

Government was satisfactory.

8. Lessons Learned

The key lessons to be learned following HSP implementation are as follows:

1. **Extensive pilot projects can be difficult to sustain politically and to receive the necessary enabling environment.** Pilot projects are by definition exceptions to the rules -- rules which often difficult or at least time-consuming to change. When pilots are particularly extensive in the reforms that they try to demonstrate, they will take time to plan and implement and this process will inevitably span different political cycles. Preferably, pilots would be of a scope that they could reasonably be designed, implemented and evaluated within one political cycle. At a minimum, the case for any pilot -- its location, the amount of resources being dedicated to it, how it can be evaluated and replicated, etc... -- should be sufficiently clear to successor administrations in order to minimize the delays which can be expected due to a change in Government. Finally, it should also be clear to what extent a pilot can test policies alternative to national policies, especially those requiring legislative or other regulatory changes. The level of investments and the expectations of the results should somehow match the degree to which the enabling environment allows for new policies and procedures to be implemented and the lending instrument should be able to provide some means of ensuring this.

2. **Disposal of expired pharmaceutical and other medical products following post-conflict can be dealt with efficiency, effectively and with appropriate attention to safeguards.** For those countries which are or may experience similar problems as those which Croatia faced -- expired or expiring humanitarian assistance following conflict or other crisis -- the Croatian experience shows that there is an efficient and safe means of resolving the issue requiring strong local oversight and for which technical advice from the Bank and WHO on the appropriate safeguards is helpful for assuaging local concerns. Should the issue arise in other countries, other countries may find the Croatian experience and experts useful resources.

3. **Technical assistance when it is an exchange between high-level professionals is extremely valued by the direct beneficiaries and the value of this exchange needs to be shared with policy makers.** Loan financing of technical assistance, especially large external technical assistance, is often limited by the Borrower. A couple of examples in this Project -- specifically the services provided under the Public Health Component and the exchange of the emergency health officials to emergency health departments in Australia -- clearly showed the technical and capacity gains that can be obtained from such assignments. There is a need to highlight these positive experiences with the Borrower and to ensure that future technical assistance assignments are provided similar high-level professional exchanges (rather than stand-alone studies which are often shelved without much impact). Additionally, there is a need to ensure that such assignments provide presentations and policy briefs that can be easily digested by high-level policy makers during the current and future administrations.

4. **Restructuring of health services, including the necessary involvement of local officials and stakeholders, takes time.** Using the Koprivnica County case as one example, it takes time and a tremendous number of actions and actors to restructure health services. It took a year to develop the concept with the stakeholders; a year to develop a specific strategy for the County (of 130,000 residents); a year to reach agreement on the strategy by all parties; and about another six months to reach agreement on co-financing agreement before tendering of infrastructure improvements began. In the meantime, it took about two years to develop some of the needed human resource capacity in the local facilities. In parallel, there was policy dialogue on national reforms that were required to support the restructuring of services and these discussions are still on-going. Additionally, these activities were interrupted by periods of

political uncertainty. Future efforts for restructuring local health services should not under estimate the time or level of effort required.

5. **When implementation difficulties and delays arise, project monitoring and evaluation is often neglected.** This is not a new lesson and is repeated in many other completion reports. To some extent this Project provides a typical example of a project that is built on the premise of pilot and evaluation and then this premise is undermined when implementation difficulties and delays arise. The monitoring and evaluation of the Project activities should in this case extend beyond the Project cycle and be included in future Bank dialogue and operations in the health sector.

6. **A more flexible instrument may have achieved similar or better outcomes in a shorter period of time.** At the time the Project was significantly delayed and the Koprivnica pilot was under question, the Bank offered to restructure the Project and support other activities to achieve the Project objective. Had the new Government had more a flexible lending instrument from the start without a prior commitment to a pilot in a particular county, it may or may not have reached the same conclusion to continue with the pilot, but the issue would probably have been less contentious and more focus could have been implementing an activity or program activities to achieve the desired outcome rather than whether to complete the originally designed activity or not.

9. Partner Comments

(a) Borrower/implementing agency:

Below is the complete version of the Ministry of Health and Social Welfare's contribution to this report (edited only for formatting). It provides a wealth of information regarding the implementation of the project, the details of which can not be presented in this report for the purposes of brevity. In their report, the MoHSW also considers the outcomes of the project, the implementation progress of the components, the Borrower's and the Bank's permeance. The ratings of the MoHSW and this report are consistent.

Ministry of Health and Social Welfare
IBRD Loan No. 45130 HR
Health System Project – Project Management Unit

Implementation Completion Report

Implementing Agency's Evaluation of the Croatia Health System Project

Context.

The Republic of Croatia (Hrvatska) covers an arc of territory from the Danube River in the east to Istria in the west and down the Adriatic coast to Dubrovnik in the south. The borders´ of the country are with Bosnia and Herzegovina, Slovenia, Hungary and Yugoslavia. The land area in 1993 was 56,500 square kilometers.

The Republic of Croatia became an independent country when the Yugoslavian federation collapsed. The first democratic multi-party elections took place in April 1990 when the Croatian Democratic Union defeated the Communist Party and was elected the party of government.

During the war which followed national independence, Croatia suffered extensive material damage

particularly in the frontier areas in eastern Slavonia, along the border with Bosnia-Herzegovina and the area around Dubrovnik. Direct damage (excluding many indirect effects) was estimated by the State Commission for War Damage Inventory and Assessment to amount to US$27 billion. For example, nearly 10% of housing stock was destroyed or damaged as well as a considerable amount of public service infrastructure.

The country is governed by a bicameral parliament, the Sabor, which contains the House of Representatives and the House of Counties. Representatives are directly elected for a four-year term. The head of state is the president, who is directly elected for a five-year term and may be re-elected for a further single term. The president is responsible for the timing of elections and referenda, and nominates a Prime Minister who in turn appoints a government, subject to approval by the House of Representatives. A constitutional court ensures that laws passed by the parliament conform to the constitution.

Regional and local government is organized at two levels: 21 counties and 404 municipalities. The county is the larger territorial unit consisting of a county assembly, a county head and county administration. Municipalities are smaller, comprising a municipal council and a municipal mayor. County and municipality representatives are elected for four-year terms. County and municipal activities are financed principally from the state budget and also form small and variable amounts of locally raised revenues.

The total population of Croatia in 1996 was estimated at 4.57 million (a drop from 4.78 million in 1991). Up-to-date information on the ethnicity and religious mix is not available since there has been large-scale population movement since the last census in 1991.

The Republic of Croatia underwent a severe recession in the first half of the 1990s due to several factors: the transition form a command economy, the severing of ties with Yugoslavia, and the enormous impact of the war upon the society and economy. Annual GDP growth, which was falling by the end of the 1980s, dropped to nearly –20% in 1991 before improving to 4% in 1996. Annual inflation soared during the war but improved to single figures from 1995. GDP per capita in US$ fell from $5106 in 1990 to a low of $2079 in 1992 before recovering somewhat to $4243 in 1996 (purchasing power parity figures are not available). Registered unemployment rose sharply in 1991 and has remained at around 15%.

The health status of the Croatian population is better than in many central and eastern European countries despite war and economic privation. For example, life expectancy at birth in 1997 was 76.5 years for women and 68.6 years for men, which was higher than for its neighbor Hungary.

Ischaemic heart disease is a major cause of death in central and eastern European countries with 106.9 deaths as an age standardized rate per 100,000 males 0-64 years. The rate in Croatia, however, was 69.19, which is closer to the European Union average of 52. In 1996, the rate for ischaemic heart disease in Croatia was 64.59, whereas in neighboring countries, Hungary was 133.78 and Slovenia 45.78. The Croatian mortality rate for cerebrovascular disease, however, is twice the European Union average. Maternal mortality per 100,000 live births rose slightly in 1993-1995 during the war but not above the central and eastern European average, and infant mortality and mortality rates for children under five years of age did not rise significantly in those years (WHO Regional Office for Europe health for all database).

The new constitution adopted in December 1990, in its first article defined the Republic of Croatia as a

"democratic and social" state. The constitution also set out a number of social rights including the right to a healthy life, a healthy environment and health care.

The 1993 Health Care Act included commitments to universal coverage, universal accessibility, acceptability, affordability; continuity of care, free choice of physician and health care team; and provision through a mixed (public and private) system. The legislation also emphasized the importance of health promotion and disease prevention. Health care was to be developed through a planned approach to health care delivery at three levels (primary, secondary and tertiary). The principle of subsidiarity was invoked in that the state should not offer services better delivered at county level, and the county should not offer services better delivered at municipal level. Health care was regarded as primarily the responsibility of government but citizens were also urged to look after their own health. Article 3 of the Health Care Act states: "The duty of all citizens is to take care of their health".

The developing system will undergo further reforms. The guiding principle is that these changes should result in an improvement in the health status of the population. The health system should also develop in such a way as to ensure its stability and not endanger national development.

"Although the reforms of 1993 helped accelerate the development of a modern health system, the health financing crisis that emerged in October 1998 shows that those reforms alone have not stabilized the sector. Croatia must now choose between adopting further reforms in its health sector or allowing the system to regress. The status quo is not an option."[1]

The financial stability of the Croatian health care system was put under pressure in 1992 when only 25% of the 1990 level funds were available, and this level of funding (about 7% of GDP) has continued throughout the 1990s. Despite predictions of collapse, health care facilities managed to survive without mass redundancies or closures although there were real wage reductions.

The main intentions of reform were to improve the health status of the population, replace the fragmented health insurance system, privatize some primary health care personnel and facilities, reinforce primary health care and health promotion, and address the considerable variation in access to health care --- 1 The World Bank, Project Appraisal Document, July 2, 1999. In addition, the intention was to bring health care more in line with that in Western Europe while remaining sensitive to national circumstances.

A health insurance fund was created in order to reduce reliance on a single source of finances. State and country institutions took over ownership of health facilities that previously had suffered under a chaotic form of self-management.

The reforms have moved towards the kind of systems seen in Western Europe, with guarantees of equity but using competitive principles to improve efficiency. The promotion of efficiency was particularly important given the acute economic crisis that the country was facing.

Reforms were implemented in phases. First, the Croatian Health Insurance Institute, set up in 1993, took over the existing fragmented insurance funds.

Second, the large medical centers which had nominally administered all health services in their areas were broken up in order to free the separate enterprises: the general hospitals, polyclinics and health centers.

Third, the ownership of health facilities was given to specific public sector bodies. Legislation was enacted which established the state as the owner of teaching hospitals and teaching hospital centers, and the counties as owners of general hospitals and health centers. Hospitals and health centers were to be run by a management board whose members consisted of employees and appointees of the owner (state or country).

The Croatian health reforms have been marked by a distinctive approach to privatization of primary care and some secondary care. The decision was to lease health care facilities at subsidized rates rather than sell them in order to provide stability in difficult economic times. The privatization process has accelerated since 1994 with the enactment of statutes on the privatization of primary health care facilities. Leases for primary health care facilities run until the end of 1999. At the same time, specialist ambulatory services have been privatized and many private polyclinics have opened in private premises.

There have been some improvements in a number of key health indicators. While death rates from ischaemic heart disease have risen, some health status indicators that are sensitive to health services (such as infant mortality rates) have continued to improve throughout the reforms.

Two major pieces of legislation (the Health Act and the Health Insurance Act) have been passed along with additional regulations. The debts of the previous system have been eliminated and in 1995 a surplus was accumulated to pay for new capital equipment. The funding available to health care has risen under the state insurance fund, and county budgets also make some contribution to capital investment. Much primary care has moved to a system of independent contracting.

Assessment of the Objectives of Project.

"The objective of the Project was to enhance Croatia's capacity to achieve a more effective, efficient and financially sustainable health system in the medium term."

With the benefit of hindsight, we think that this objective was appropriate for the time period and is still valid, not only in Croatia, but in many other countries as well. Probably there is no health system in the world that cannot be improved in the terms of effectiveness and efficiency, and therefore these objectives might be considered universal and continuously present. However, financial sustainability was a great challenge at the time of the project design, because of the Croatian health system was not able to provide efficiency that could deliver expected outcomes without creating deficit.

The indicator for achieving this objective (according to Annex 1 of the PAD) was the: "Preparation of a strategic plan for next stage of restructuring and development of Croatia's health system (including [lessons learned from] implementation of pilot activities on a broader basis as well as processes for planning facility and program rationalization) and consideration of plan by Croatian decision makers."

The project implementation activities did not directly result with a strategic plan for the next stage of restructuring and development of Croatia's health system. The present struggle with the deficit in health sector proves that the project implementation, together with the several other initiatives, did not result with a financially sustainable health system.

However, the Project contributed to the capacity of the Croatian health system that may lead to it being more effective, efficient and financially sustainable in the future through: studies of health status and

risk factors; health promotion activities; improvements in primary, secondary and tertiary prevention of cardio vascular diseases (CVD) demonstrated by the increased capacity for critical diagnostic and treatment procedures; recommendations for the pharmaceutical sector reform; introduction of more efficient hospital emergency care; upgrades of necessary physical infrastructure; supply of medical equipment; and other as described in detail further in the text.

Unfortunately, during the project implementation the provider payment system did not change to introduce financial incentives for efficiency. For the reasons beyond reach of the PMU, introducing a new payment arrangements through the Koprivnica pilot, or nationally, was not possible to achieve.

Based an all above information we would say that the project did enhance Croatia's capacity to achieve a more effective, efficient and financially sustainable health system in the medium term.

Particularly, the project contributed to more effective and efficient management of cardio vascular diseases (CVD); increased local capacity for health promotion activities that are the most cost-effective on the long run; proposed reforms in the pharmaceutical sector that may contribute to financial sustainability. The activities in the pilot project are still not completed since the physical reconstruction was completed very recently. Therefore, we have to wait for the final evaluation of the pilot. Nevertheless, the capacity for more effective and efficient services is already enhanced in the pilot project through the innovative reorganization of the hospital emergency services.

Assessment of the Project Components. The objective of the Project was originally to be achieved through (a) an integrated delivery system improvements component, including the Koprivnica Pilots modeling improvements in primary, hospital and alternative levels of health care and the implementation of the national heart disease program; (b) a public health component focused on capacity building and evaluation of the CVD program; (c) a pharmaceuticals component which aided in the disposal of pharmaceutical waste; and (d) a systems wide initiative component which was to study several key issues, develop the capacity for health system management, and evaluate the pilots, culminating in a strategic plan for furthering the reforms.

With the benefit of hindsight, we think that the first three components were appropriate for achieving the Project objective. Unfortunately, the system wide initiative component (d) was not clearly defined during the project preparation period, leading to different understanding of its activities among various stakeholders and in the course of the project implementation process and limiting its contribution to achieving the Project objective.

Part A: Health Services Delivery

The component was supposed to have cost $26,4 million (total cost).

The final estimate of total costs of this component is $25,5 million, which is 97% of the original estimate. During the midterm review in June 2002, the Bank team and the PMU identified considerable savings after procurement of medical equipment and consumables for support of the national heart care program in amount of $2,3 million. Together with savings of $1,7 million after completing the tasks in the pharmaceutical waste disposal component, the amount estimated at $5,1 million was available for reallocation. Since the consultants contracted for the pilot project Integration of Health Services in Koprivnica-Križevci County suggested that the planed funds for rehabilitation of Koprivnica hospital and the primary health care centers in Koprivnica and Križevci were underestimated, in agreement with the Midterm Review Bank team, the Ministry of Health requested the Bank to amend the Schedule 1 of

the Loan Agreement to provide additional funds needed for upgrade and rehabilitation of health care facilities in Koprivnica-Križevci County. The Bank granted the requested reallocation on July 31, 2002.

The majority of funds for this component were used to support pilot project ($17,7 million): civil works ($9,8 million); medical equipment ($4,2 million), technical assistance for preparation of the pilot project, architectural designs, training of health professionals and project management and supervision of civil works ($2,6 million) and the IT system ($1,1 million).

The remaining funds for this component were used to support the national heart care program ($7,8 million): medical equipment and supplies ($4,4 million); telecommunication equipment ($2,4 million); training of health professionals ($0,8 million); and civil works ($0,2 million).

Part A.1: Pilot – Integration of Health Services in Koprivnica-Križevci County

The technical assistance contract for Integration of Health Services in Koprivnica-Križevci County was awarded in March 2001 to the BIS Healthcare Group Ltd, from United Kingdom. The consultants completed the assessment phase in July 2001 and presented their findings and proposals on workshops for medical professionals and policy makers. The findings and proposals were evaluated and discussed by technical working groups nominated by the Croatian Chamber of Physicians and Croatian Association of Physicians. The revised proposals were submitted to the policy makers for approval. After several months of negotiations the Minister of Health agreed in principle with the proposed pilot reforms in April 2002. After further negotiations, the main stakeholders (Ministry of Health, Koprivni·ko-križeva·ka County, Croatian Health Insurance Institute and County Institute for Public Health) signed the Memorandum of Understanding in June 2002, proving the commitment to the agreed pilot activities and implementation plan.

The pilot project objectives at the hospital level were to: (i) improve quality of services, especially for emergency patients; (ii) reduce average length of stay; (ii) ensure safe discharge procedure; (iii) to gradually reduce number of beds through reconstruction and upgrade of the hospital, supply of necessary medical equipment and training of the health professionals.

In order to improve quality of services for emergency patients a new hospital emergency department needed to be established. Such organization of hospital emergency service is new to the Croatian health system and there were no local resources for appropriate professional training. Therefore, the training was organized by the Western Hospital in Melbourne, Australia using a training curriculum prepared for this purpose. Five medical doctors and five nurses completed the training that consisted of intensive course in emergency medicine organized in Koprivnica in April 2003, clinical practice in Western Hospital in Australia for 14 weeks including the final exam, and seminar assignments to demonstrate acquired skills and knowledge in Koprivnica. After completing all of the training activities the participants received diplomas in June 2004, and immediately started implementation of the new organization of emergency hospital services.

In order to improve quality of services in the entire hospital a hospital quality assurance system was developed. The system includes quality assurance committees for: hospital infections, pharmaceuticals, management of clinical risks, medical documentation, blood transfusion, patients rights, professional education, clinical guidelines and protocols, diagnostic guidelines and protocols, and ethical issues. The committees are coordinated by the assistant director for quality assurance. Medical professionals were trained for introduction of quality assurance system and benchmarking. The lessons learned in

Koprivnica were used in introduction of the hospital quality assurance system national wide through specialized seminars organized in Koprivnica in March 2003, and in Karlovac in November and December 2003.

Quality of hospital services were also improved through continuous education of nurses on selected topics including; diabetes, identifying the abused child, decubitus prevention and treatment, hospital infections, basic life support, discharge planning, leadership, best practice standards, and medical documentation.

The safe discharge procedure is necessary to support reduction of length of stay, and to reduce unnecessary readmissions. Therefore, a specialized discharge nurse was introduced in the Koprivnica hospital in October 2002, to assure and coordinate safe discharge and to facilitate continuous community care of discharged patients.

The hospital reconstruction for reduction of hospital beds included: emergency admission department, day surgery with endoscopy, hospital pharmacy, coronary care, rehabilitation ward, psychiatry, education center, and admissions department, and the hospital upgrade included: central laboratory and mortuary. In February 2003, the County decided to invest additional funds for hospital reconstruction in order to complete the Master plan for the hospital though further upgrade of the hospital building. This decision delayed the preparation of architectural designs for the hospital upgrade and rehabilitation financed by the Loan in scope of the pilot project activities until November 2003. As the result, the project closing date had to be extended for one year. New delay in pilot project implementation was faced in the first half of 2004, because of increased obligations on burdened State Budget in 2004. The necessary funds in the Budget were made available in July 2004, and the Bank approved another extension of the Loan closing date for six months to enable completion of the project activities. The works started in September 2004, and were completed by the end of October 2005. The late finish of works did not provide enough time to establish complete functionality of the planned hospital services by the end of 2005, although the planed hospital upgrade and rehabilitation, as well as the installation of medical equipment was completed before the Loan closing date.

Supply of medical equipment was implemented in two phases. Medical equipment that was not dependent on civil works was supplied and installed in December 2003. The further delivery and installation of medical equipment was synchronized with implementation on civil works from August till November of 2005.

The main objective of the pilot project at the Primary health care level was to ensure patient oriented and integrated services through: monitoring and management of patients suffering from chronic and degenerative diseases; continuity of care; “one stop shop” for the patients, integrated preventive care, and a new management structure.

Activities used to achieve these objectives were: organization of group practices, education and organization of nurses, rehabilitation of group practice offices where necessary, supply of medical equipment and training.

On the territory of Koprivnica-Križevci County six group practices were organized, including 24 family doctors in 12 primary health care offices. Unfortunately, the provider payment system is based on contracts with individual offices, and not the group practices. Therefore the expected benefits are limited mainly to better access to services during the non-working hours. Medical equipment for 6 group practices delivered and installed in October 2005.

Referring to Annex 1 of the PAD and the Supplemental Letter to the Loan Agreement, this subcomponent achieved the following activities:

1. Group practices established in pilot sites – six group practices were established and equipped with essential medical equipment;
2. Alternate levels of care (day surgery, day hospital, respite, hospice, home care services) established at inpatient pilot sites – day surgery, day hospital and new hospital emergency ward were established through upgrade and rehabilitation of the hospital building, supply of necessary medical equipment and training of personnel in emergency medicine, as described above. Strategy and organization of improved community care was developed for patients with mental disorders and terminally ill patients;
3. New payment methods, which imply improved incentives for effective use of resources, designed and implemented for outpatient and inpatient care in pilot sites – no new payment methods were introduced in pilot sites, introduction of payment for selected therapeutic procedures (called PPTP) was introduced for payment of hospital services nationally, including the pilot;
4. Pilot health information system developed that utilizes an open-architecture design, that synthesizes clinical, administrative and financial data at the patient-level, provider-level, and payer-level, and that includes patient-level hospital data on secondary diagnoses – the new health information system developed utilizes and open – architecture design uses the transferred data and provides same transferred functionalities that were developed earlier, but in a closed-architecture design and existing network of health providers in the pilot County;
5. Practice managers trained and hired – not achieved; and
6. Quality Assurance system developed and implemented – achieved in the pilot hospital, as described above.

Based on above information, we think that this subcomponent of the project achieved most of the expected outcomes and outputs. Unfortunately, due to many factors out of the reach of the implementing agency, the progress in implementation was much slower than planed, and some activities in the pilot project are still not completed since the physical reconstruction was completed very recently. Therefore, we have to wait for the final evaluation of the pilot results.

From implementation process of this subcomponent we have learned that the main expectation from the health system development in the pilot project area was mainly to achieve as good infrastructure, medical equipment and professional training as possible. Such input oriented health policy reflects the provider payment systems currently in place. To improve the outputs per given inputs (efficiency), in the next phase the health policy should turn to output oriented. This policy shift requires development of payment systems that would reward better efficiency. This task was not performed during implementation of this project, but the project activities prepared the health system in Koprivnica-Križevci County to proceed in this direction in near future.

Part A.2: National Heart Disease Component

The National Program for Prevention of Cardio-vascular Diseases (CVD) was prepared and published in September 2001, in the scope of the Health System Project. The main purpose of the Program was to reduce the risk of contracting cardiovascular diseases and dying of it in the Republic of Croatia. The main goal of this strategy was reduction of burden that ischemic diseases of cardiovascular system, particularly cardiovascular and cerebrovascular diseases, represent in terms of health and economy. The way to achieve this goal was identified through organized prevention of cardiovascular diseases that must be simultaneously implemented on the levels of promotion of health, primary and secondary

prevention.

In accordance with the above strategy, the National Heart Disease Component was focused on support of the primary, secondary and tertiary prevention of CVD mortality.

Strengthening of primary prevention of CVD mortality was provided through health promotion activities at national level and completed in 2003.The Australian Embassy in Zagreb donated TV and radio spots that were translated, adopted and broadcasted on the national TV and radio network for fifteen months. Messages were also presented on jumbo posters thought the country over three months of the campaign. The further work on health promotion and health advocacy was continued through the health promotion unit established at Croatian Institute for Public Health and supported by the Public Health Component.

The secondary prevention of CVD mortality was strengthened through reorganization, training of professional staff and procurement of necessary medical equipment.

The Institution for Emergency Medical Services in Zagreb was reorganized and equipped with a new digital telecommunication system incorporated in the national network for emergency services administered by the Ministry of Interior Affairs. The system was completed and put into operation in May 2002. It includes a sophisticated vehicle tracking system and dispatching center automation system that enables better efficiency and improves access to emergency medical services. The new system also enables: team efficiency analysis, emergency event analysis, team response analysis, analysis for potential situations and simulations. Unfortunately, the national rollout was not possible because the national network infrastructure does not provide sufficient coverage in other parts of Croatia.

Therefore, the national-wide telecommunication system for emergency medical services subcomponent was transformed to a new telecommunications/ telemedicine pilot project for selected Croatian islands. The project included seven general practices on selected islands in the Splitsko-Dalmatinska County, seven diagnostic centers in Split and seven diagnostic centers in Zagreb. All centers were equipped and put in operation in October 2005, providing better access to specialist medical services for cardiovascular diseases, trauma and dermatological disorders for the population on the islands. The telemedicine project enables reduction of referrals to the hospital for the general practitioners on the islands and offers better efficiency of the health care system in the pilot area. Unfortunately, the system was put in operation recently, and there are no data available to document the expected outcomes and benefits.

The European Resuscitation Council provided training in emergency medicine for health professionals in emergency medical care. The participants were physicians, nurses, and medical technicians from university and general hospitals, primary health centers, and institutions for emergency medical care from all of the Croatian Counties. The purpose of the training activities was to develop a regional network of local instructors with international qualification, which would enable Croatia to build sufficient local capacity to organize continuous internationally certified training in basic and advanced life support of adults and children. The European Resuscitation Council, together with the American Heart Association, Australian Resuscitation Council, Resuscitation Council of South Africa and Resuscitation Council of South America, constitutes the International Liaison Committee on Resuscitation (ILCOR), which prepares and coordinates international guidelines in cardiopulmonary resuscitation. Therefore, the European Resuscitation Council (ERC) was the optimal international provider of the training.

In the period from April 7, 2002 till June 30, 2004 a total of 15 ERC courses were organized for 347 health professionals: 8 Advanced Life Support Provider Courses, 3 Basic Life Support – Automated External Defibrillation Provider and Instructor Courses, 3 Advanced Life Support Instructor Courses and one European Pediatric Life Support Provider Course. From the 347 successful participants 131 qualified as ERC instructor candidates, and 27 of them fulfilled all required ERC criteria and were certified as Croatian ERC instructors.

The final outcome of the resuscitation training activities organized during two years of implementation was a national network of 347 internationally certified providers and 131 instructors of basic and advanced life support covering all Croatian Counties, which assures continuous education in Croatian language for all health professionals in accordance with the most recent international standards.

Six centers for resuscitation training were established and equipped for basic and advanced life support courses: two in Zagreb, and one in Split, Rijeka, Slavonski Brod, and Dubrovnik. The training centers will be called: „Croatian Ministry of Health – Educational center of the European Resuscitation Council".

In addition to the training activities, the emergency wards of all 21 general hospitals in Croatia were equipped with medical equipment for resuscitation and life support in emergencies.

Strengthening the tertiary prevention of CVD mortality was provided in 2002 and 2003 through procurement and installation of two sophisticated laboratories for invasive cardiovascular diagnostics and interventions in university hospitals Dubrava and Rebro in Zagreb, as well as supply of necessary consumables for start up of their operation. The both hospitals reported on use of both new and existing coronary angioplasty equipment at high capacity. The Rebro hospital reported positive outcomes after receiving the equipment and consumables achieved through: more interventional procedures, increase of interventions in acute cardiac attack (34% of coronary angiography patients), increased number of multi-vessel interventions (16%), ability to treat more complicated cases, and increased capacity for interventional training and teaching. The Dubrava hospital reported increase of number of interventions from 73 per month in 2001 to 98 per month in 2002, and 127 per month in 2003, and an almost doubled number of more sophisticated procedures after receiving the equipment and consumables.

Referring to Annex 1 of the PAD and the Supplemental Letter to the Loan Agreement, achievements of this subcomponent were the following:

1. Clinical Guidelines, from General Practice to Cardiac Care, prepared and disseminated – achieved through a Public Health technical assistance contract and described in detail under the Public Health Component;
2. Appropriateness Indicators for CVD interventions – Drug Treatment Regiments, Angioplasty, Coronary Bypass – Drug Treatment Regiments were developed in the scope of the Pharmaceutical Reform technical assistance described under the System Wide Initiatives. The Angioplasty and Coronary Bypass appropriateness indicators for CVD interventions were not developed in the scope of the Health System Project since the National Association of Cardiologists is working autonomously on these issues;
3. Management of Waiting Lists for high-end CVD surgical care by operating center and nationwide – the waiting lists were managed and made transparent. Acute patients and patients with defined life threatening conditions are treated immediately, and the waiting lists of non-acute patients are open to public review;
4. External Peer Review Processes for CVD interventions by specialty and by the Health Insurance

Institute – External Peer Review Process for CVD interventions was not achieved by the project activities. The providers and the Health Insurance Institute use their own procedures of continuous international training that includes external peer review procedures;
5. Numbers of Croatians receiving CVD surgery outside Croatia – the data on this indicator was not available at the time of this report;
6. Consumer information available on disease prevention and treatment compliance – achieved through media campaign and the activities of the health promotion unit of the Croatian Institute for Public Health described in detail under the Public Health Component;
7. Effective GP training on CVD management at PHC Level – partially achieved through workshops on the CVD guidelines for primary health care described in detail under the Public Health Component;
8. Health promotion campaign elements addressing CVD prevention – achieved and described in detail under the Public Health Component;
9. Development of cardiac treatment protocols – achieved through the CVD guidelines for primary health care described in detail under the Public Health Component;
10. MD training in emergency CVD management and use of protocols – achieved through the life support courses provided by the European Resuscitation Council as described in detail above;
11. Monitoring of practice patterns relative to protocols – partially achieved through the technical assistance provided by the Health Insurance Commission, but not maintained, because the Health Insurance Institute did not build required capacity for this task;
12. Use of both new and existing coronary angioplasty equipment at high capacity – achieved as described in detail above;
13. Clinical guidelines developed for access to tertiary coronary interventions – not achieved by the project; however, the professional standards exist;
14. Improvements to emergency medical communications system extended nationwide – fully achieved in Zagreb area (20% of population) and piloted in Splitsko-Dalmatinska County (for the isolated population on islands).

Based on this information, we think that this subcomponent of the project had achieved satisfactory progress in implementation because the most of the planned activities were successfully achieved.

However, the results would have been even better and more sustainable if the professional working group for the National Heart Disease Program was maintained during the implementation of the Health System Project to provide better coordination of all activities: those financed from the Loan, as well as those carried out by the other government, non government and professional organizations.

Part B: Public Health

The component was supposed to have cost $1.5 million (total cost).

The final estimate of total costs of this component is $1.7 million, which is 113% of the original estimate. The reason for higher expenditure was that a part of the Public Health technical assistance contract included also some activities planned under the National Heart Disease Component, such as resuscitation training for health professionals and development of guidelines for prevention and management of cardiovascular diseases in the primary health care.

The majority of funds for this component ($1.3 million) were used for technical assistance contract for national health survey, further education in health promotion, capacity building in public health, and training in emergency procedures for the national heart care program. The remaining funds ($0.5 million) were used for financing health promotion activities and workshops.

The technical assistance contract for national health survey, further education in health promotion, capacity building in public health, development of clinical guidelines for CVD diseases, and training in emergency procedures for the national heart care program was carried out by the Canadian Society for International Health from December 2002 till July 2004. The principal purpose of this technical assistance was to contribute to the reform and development of the health care system in the Republic of Croatia by developing public health strategies to reduce the high prevalence of heart disease**.**

The objectives of the technical assistance were: (i) to assist in health monitoring and program development, implementation and evaluation to track secular changes and assess health risks based on conducting public health surveys; (ii) to support the development of a department specialized in health promotion activities in the Croatian Institute of Public Health that will lead national efforts in health promotion, and will coordinate efforts in a strong media advocacy campaign; and (iii) to ensure further attention to primary and secondary prevention of cardiovascular disease and to enhance capacity in emergency medical care.

The national household health survey was carried out to provide comprehensive, population-based data on health status at the national and regional level, and to create monitoring systems to track secular changes in relevant behavior that affects health risks for the future. The survey was completed in February 2003, and the results were disseminated though a series of seminars organized by the Consultants for the most important stakeholders and beneficiaries. The survey findings were disseminated to policy decision makers and non-governmental organizations at the Intersectoral Seminar organized on March 20, 2003 at the Medical School of Zagreb University; to the public health professionals at the Seminar organized on March 23, 2003 at the Croatian Institute for Public Health. The Croatian public health professionals further analyzed the findings of the survey on a dedicated workshop, resulting in several new scientific papers and mastering the local skills to repeat the survey in order to track the changes in relevant behavior that affects health risks in future. A scientific paper "Cardiovascular risk factors in Croatia: struggling to provide the evidence for developing policy recommendations" was published in the British Medical Journal (2005; 331:208-210). A national symposium Territorial Distribution of Population Cardiovascular Risks in Croatia will take place in Zagreb on December 2, 2005, and will include presentation of results of the household survey in children.
In the scope of health promotion capacity building, the Consultants prepared the Information System Upgrade Plan containing detailed plans for establishing the Croatian Health Promotion Reference Library to provide access to information in support of building capacity to lead national efforts in health promotion. The unit responsible for all health promotion in the Croatian Institute for Public Health established by the First Health Project Assisted by the World Bank was strengthened by these activities and received training in health advocacy, health promotion planning, and preparation of the health promotion projects. The unit activities include: (i) analysis of socioeconomic and behavioral determinants of health based on the data from the household survey; (ii) promotion of healthier lifestyles through a popular "Population Health Magazine"; (iii) contributes permanently to the professional journal "Croatian Public Health"; (iv) starting and maintaining a web page www.zdravlje.hr for dissemination of information on health promotion; (v) teaching on health promotion on the postgraduate study of public health at the Medical School of the University of Zagreb; (vi) development of the first National strategy in health promotion (still in preparation). A special study tour to Canada was organized for a group of 12 public health professionals to provide practical training in health promotion skills and techniques and resulted in creation of the health promotion units in three City/County public health institutes in Zagreb, Rijeka and Split.

In the scope of the promotion of healthier lifestyles the consultants have completed the situation

analysis and proposed the strategy for future health promotion activities including a detailed plan of optimal use of existing resources and media campaign.

In the scope of training in emergency procedures for the national heart care program; in 2003 the Consultants successfully organized four ERC (European Resuscitation Council) ALS Provider Courses for 120 participants (30 per course) and two ERC Instructor Courses for 40 participants (20 per course).

The Consultants also prepared the Clinical Guidelines for treatment of cardiovascular diseases for the primary health care and presented them at the Seminar for family doctors and cardiologists on March 27, 2003 at the Ministry of Health and Social Welfare.
The Public Health component reached the following segments of people: (i) the population of Croatia; (ii) the Ministries of Health and Finance as well as CIHI, NIPH and ASSPH; (iii) physicians, nurses, and other health professionals; (iv) associations, trade unions and stakeholders; and (v) policy makers, program planners.

The component achieved most of the planned outcomes. The household survey provided a comprehensive, population-based data on health status and prevalence of CVD risk factors representative both on the national and regional level. The survey data will serve as the baseline, and the survey methodology will be used for future surveys needed to track secular changes in relevant behavior that affects health risks. The health promotion unit responsible for health promotion activities in the Croatian Institute for Public Health was strengthened, and new health promotion units in three biggest County Institutes for Public Health were created. The studies of national CVD program were not performed because the household survey was completed in 2003, and the significant changes in health status cannot be expected by the end of the project. The evaluation survey is scheduled for the year 2008. Instead, this component supported the national heart disease program through development of clinical guidelines and providing resuscitation training for health professionals.

The impact of the component in the next five years will be to have in place a sustainable and integrated base that can be translated into effective policies and programming to support healthy lifestyles to prevention CVD at both the national and the local level.

Referring to Annex 1 of the PAD and the Supplemental Letter to the Loan Agreement, achievements of this component were the following:

1. Creation of monitoring systems to track secular changes in relevant behavior that affects health risks – achieved as described in detail above;
2. Creation of a unit responsible for all health promotion activities – achieved as described in detail above;
3. Comprehensive, population-based data on health status – achieved as described in detail above; and
4. Evaluation studies of national CVD program – not achieved yet, scheduled for 2008, for the reasons described in detail above.

Based on the above information, we think that this subcomponent had achieved satisfactory progress in implementation because it accomplished the expected outcomes.

The main lessons learned during implementation of this component include introduction of best international practice in organization and performing the household surveys especially the sampling

techniques, as well as the advanced techniques for statistic analysis. The learned techniques and skills will be used in the future studies, especially in the household survey scheduled for the year 2008.

Part C: Pharmaceutical Waste Disposal

The component was supposed to have cost $3.8 million (total cost).

The final estimate of total costs of this component is $1,7 million, which is 45% of the original estimate. The lower costs resulted from the fact that the total amount of pharmaceutical waste found in the country did not exceed 1.324 tons, while the original estimates indicated as high as 2.400 tons of pharmaceutical waste.

The pharmaceutical waste from agreed sites was disposed in an environmentally safe manner that conforms to regulatory requirements and procedures agreed.

The technical services of collecting, sorting and transport of pharmaceutical waste from 25 selected sites to the incinerator in Zagreb were successfully completed in November 2001. The total amount of 1,323.82 tons was sorted and transported to the incinerator. The process was monitored and supervised by the Croatian Institute for Toxicology, Ministry of Health and Ministry of Environment Protection; and the final reports showed that all pharmaceutical waste was removed and the sites were properly cleaned after the transport.

The incineration of all of the 1,323.82 tons of pharmaceutical waste was completed in the first quarter of 2002. The Croatian Institute for Toxicology monitored emission of the incinerator plant, and no toxic emissions were registered. Unfortunately, the planned disposal of flaying ash in a brick factory could not be carried out because the subcontracted brick factories were not able to organize safe disposal. The alternative solutions were evaluated, and export of toxic ash was selected as the only feasible option for safe disposal. Unfortunately, the fire accident at the incinerator plant, together with the subsequent change of management resulted in further delays of final disposal of the flying ash. Finally, the transport started on January 13, 2003, and was completed by March 7, 2003.

The final outcomes of the component were: 1.722,74 tons of waste has been sorted; 1.328,82 tons of pharmaceutical waste has been transported and incinerated; 393,92 tons of other waste disposed of as municipal waste at the closest municipal recycling site or landfill; and 85,395 tons of fly-ash was exported and safely disposed in Germany.

This component demonstrated the most cost effective and environmentally safe procedure for disposal of pharmaceutical waste in Croatia. Unfortunately, after the fire the incinerator was closed, and its function was not reestablished. Without the incinerator, all toxic waste is exported from Croatia, which leads to increase of costs for disposal of toxic waste and create incentives for illegal disposal, causing unwanted pollution of environment by those who cannot afford expensive export arrangements.

Referring to Annex 1 of the PAD and the Supplemental Letter to the Loan Agreement, this component achieved the following:
1. Disposal of pharmaceutical waste from agreed sites in an environmentally safe manner that conforms to regulatory requirements and procedures agreed for this loan – achieved as described in detail above.

Based on the above information, we think that this subcomponent of the project had achieved

satisfactory progress in implementation in spite of the delay caused by the unfortunate circumstances that were out of control of the PMU. The final outcome presented by the fact that all of the pharmaceutical waste left after the homeland war and threatening to the environment for eight years was safely disposed justifies this conclusion.

The component demonstrated an effective model for disposal of pharmaceutical waste. Procedures used for collection, sorting, transport, incineration and disposal of fly ash can be recommended as a model how to deal with the excessive amounts of pharmaceutical waste in a country that faces this problem. However, availability of a local incinerator plant is essential for minimizing the costs.

Part D: System-wide Initiatives

The component was supposed to have cost $6.9 million (total cost).

The final estimate of total costs of this component is $3,3 million, which is 48% of the original estimate. The funds were expensed for the technical assistance for the Croatian pharmaceutical sector reform and civil works under a new MoHSW initiative to improve sanitary conditions in Croatian hospitals. The under-run of this component was due to the decision, made in the 2002 by the MoHSW, not to use the funds of the Loan for strengthening institutional capacity for health system management because for this purpose the Ministry took alternative approach, through a new project of development of the national health information management system.

The funds for this component were used for technical assistance for the Croatian pharmaceutical sector reform ($1,5 million), and for civil works executed for improvement of sanitary conditions in 13 Croatian hospitals (total value $1,7 million).

The technical assistance for the Croatian Pharmaceutical Sector Reform was provided by the Health Insurance Commission, Australia under a contract concluded in September 2002, and completed in June 2004. In accordance with the TOR, the Consultants performed a detailed analysis of the Croatian pharmaceutical sectors, communicated the findings and proposed solutions with the main stakeholders in the sector. The deliverables produced in the scope of the consultancy include:

1. Monitoring and Evaluation Framework with verifiable indicators allowing assessment of consultancy outputs and outcomes.
2. Review of the National Drug Policy and the proposal for the establishment of the National Drug Agency including its function, structure, institutional framework and requirements for EU accession including the comments on the proposed Drug Law and a detailed design of the Drug Agency, including its functions, organizational framework, a framework for developing standard operating procedures and an institutional structure.
3. Development of standard operating procedures of pharmaceutical evaluation committee including a description of the methodology for introducing health economics evaluation approaches into health resource allocation decision making, with special emphasis on pharmacoeconomics and a strategy for developing sustainable pharmacoeconomics skills.
4. Provision of guidance on ways to mobilize and allocate sufficient funds to finance pharmaceuticals within the framework of the National Health Policy and health sector reform including recommended options for improvements in pharmaceutical funding and provider reimbursement systems and a spreadsheet model that analyses pharmaceutical financing policy options and assists in decision making.
5. Developing drug financing alternatives and alternative methods for paying pharmaceuticals within

a new payer-system including the mechanisms that will influence individual physician's prescribing habits and reflect case-mix and patient mix, with detailed description of the functionality of the current and proposed information systems as they relate to the pharmaceutical reform project, the detail description on pharmaceutical utilization strategy including the adoption of best practice and the establishing liaison between teaching institutions, professional chambers and associations, pharmaceutical listing policy options and procedures, recommendations for integrated pharmaceutical policy initiatives for inclusion in the National Drug Policy, and the design of an information campaign and communications plan

6. Creating guidelines and protocols regarding the pharmacological dimensions of managing the 15 leading causes of disease in Croatia and the 15 diseases for which prescribing patterns are the most problematic, including analysis of the gap between current prescribing and best practice, methodology for data analysis for rational prescribing information and educational programs such as feedback, description of the process for the development of evidence based guidelines using clinical advisory groups, for the top 15 leading diseases and the top 15 diseases where prescribing is problematic, sample guidelines selected and customized by clinical advisory groups for local conditions (this work is to be undertaken by the clinical advisory group under the supervision of the Consultant), and the report on the piloting of prescribing guidelines in the Koprivnica project and their acceptability

7. Developing materials and conducting the education programs of clinical pharmacologists, CIHI staff responsible for pharmaceuticals and PHC contracting and supervision and existing practicing PHC physicians including: analysis of the overall training needs of the various participants in the prescribing process, training materials for three courses in the areas of pharmacoeconomics and rational prescribing, report on training in pharmacoeconomics for 25 participants, report on training in management of the rational prescribing monitoring and information processes for 15 HZZO and Drug Agency staff, and report on training in rational prescribing for 250 PHC physicians.

The minister of health and social welfare proposed in 2003 that the part of the loan proceeds under the System Wide Initiatives Component be used for improving sanitary conditions in Croatian hospitals in order to assure essential needs for adequate quality of care in these institutions. Based on the request from the PMU the Bank approved a procurement waiver to use the national competitive bidding for two contracts: one for Zagreb hospitals, and one for hospitals out of Zagreb. The works were successfully completed by the end of September 2003. As the result if this activity 141 sanitary facilities (total surface approximately 1700 m2) were reconstructed in 13 hospitals around Croatia to meet the required standards and improve the quality of care.

Referring to Annex 1 of the PAD and the Supplemental Letter to the Loan Agreement, achievements of this component were the following:

1. Studies of: scope and structure of insurance arrangements; participation payments (co-insurance); alternative revenue sources; and provider payment arrangements were not carried out because the Ministry of Health and the Health Insurance Institute felt that these studies were not necessary, and relied on their own capacity in defining the insurance arrangements, participation payments, alternative revenue sources and provider payment arrangements.

> Study of Pharmaceutical market composition and functioning, drug lists & formularies, alternative approaches to drug pricing & financing, and links to new provider payment systems was carried out by the foreign consultants, and the details on the outputs were described above.

2. The activities planed in the project to increase institutional capacity for health system management were not implemented because the Ministry decided to implement a different project for development of the national health information management system that would be designed and integrated in a way to

ensure effective and efficient health management system. The ministry expected that using the new system would help to increase institutional capacity. Unfortunately, the new and ambitious health information management system faced difficulties and delays in implementation and its completion is still uncertain. Most of the activities planned were not carried out, such as: development of inventory of health facilities & categorization system; process for planning facility and service rationalization;; accreditation system for facilities and initial guidelines for providers; department of financing, planning and quality assurance in MoH; Health Outcome and process Indicators; standards for national health information system; training system in place for practice managers; and simulation models for sectoral revenue and expenditure projections. Only the clinical and pharmaceutical protocols for selected conditions and training providers in their use were provided through the technical assistance contract for the pharmaceutical sector reform.

3. Evaluation of pilots and policy options, preparation of a strategic plan for next stage of restructuring and development of Croatia's health system (including implementation of pilot activities on a broader basis and processes for facility and program rationalization) and consideration of plan by Croatian decision makers was not completed because the upgrade and rehabilitation of the pilot hospital was completed recently and the planned system is still not functioning, the planned outcomes of the pilot project cannot be evaluated and the lessons learned used at the national level.

Based on the above information, we think that this subcomponent of the project had not achieved satisfactory progress in implementation because most of the planned activities were not completed.

The system changes are the most difficult component of any reform or development project. Systematic changes of financing and payment systems affects allocation of funds and creates resistance of the existing structures that are uncertain if the changes will have positive or negative effects on their incomes. From the implementation process of this component we have learned that the system wide initiatives need to be prepared in more detail before the project starts, and the main stakeholders should be deeply involved in preparation of such component and demonstrate ownership and commitment not only to the general objectives, but to the action plan for their accomplishment.

Part E: Project Management

The component was supposed to have cost $1.3 million (total cost).

The final estimate of total costs of this component is $1,6 million, which is 123% of the original estimate. The increased costs were result of the two extension of the Loan closing date resulting in considerably longer need to maintain the PMU in place (133%).

The funds were used for PMU office equipment, consultant services for development of the financial management system for the project, training, remuneration of the PMU staff and short-term individual consultants.

Referring to Annex 1 of the PAD, this component achieved the following:

1. The establishment and maintenance of a fully operational Project Management Unit – achieved.

The PMU was established in December 1999, and was fully operational throughout the project implementation period. The PMU staff included: program director, PMU director, procurement specialist, financial specialist, administrative assistant and assistant to the program director. The PMU

was organized as a semi-autonomous body, responsible for all project implementation functions, including: financial management, procurement, contract management, and monitoring. The program director and project director were responsible to the minister of health and social welfare, the PMU staff was responsible to the PMU director, and the program director coordinated the work of the working groups and consultants. The PMU prepared monthly financial reports for the Ministry of Finance and prepared financial plans reports to the MoH financial department, where the financial plans and reports were integrated in the Treasury system.

The project implementation arrangements in the first Croatia Health Project were different, since the implementing agency was the Croatian Health Insurance Institute providing more capacity for project implementation activities. In the first project the Bank did not require a dedicated financial management system and reports, and the good commercial practice procedures found in the implementing agency were applied without any changes. Also, the Health System Project was more complex and required much more implementation activities. The total number of 141 prepared and signed contracts during the project implementation period illustrates this fact. Therefore, the arrangements for project implementation was appropriate in case of the both projects.

The PMU was fully staffed during the project implementation period, although the fluctuation of staff was quite considerable. The PMU had 2 program directors, 2 procurement specialists, 4 financial specialists, 5 assistants of the program director, and 5 administrative assistants. The short-term consultants were hired for translations, preparing technical specifications for medical equipment, supervising progress of civil works, and management of pilot project activities.

Based on this information, we think that this subcomponent of the project had achieved satisfactory progress in implementation, because it maintained performance the project management functions thought the project implementation period.

From the implementation process of this subcomponent, we have learned that the arrangements for project implementation should be designed to match both the implementing capacity of the implementing agency and the complexity of the project activities. We have also learned that the professionals with skills needed for the PMU staff are hard to find and keep in Croatia.

Plans for Sustaining Project Investments and Furthering Impact.

The project made investments in physical capital through building rehabilitation of Koprivnica hospital and primary health care centers that might burden the local budget due to the increased recurrent costs. These issues were discussed with the owner – County officials, who were assuring that these increased costs are affordable and the upgraded infrastructure will be sustainable in the future.

Most of the medical equipment purchased for the pilot project replaced the outdated and obsolete old medical equipment and therefore no increase in recurrent costs is be expected, but on the contrary the reduction of maintenance costs might be achieved.

Use of the new telecommunications and telemedicine equipment in emergency medical services have will lead to better efficiency and therefore we expect that the investment will prove cost-effective in time.
Investments in human capital through training and technical assistance increased capacity of local professionals, and included a component of training the trainers to ensure sustainability in the future.

Based on above information the Ministry expects that the investments made by the project are sustainable and will not create unwanted financial burden in the future.

Assessment of the Borrower's Performance.

During preparation: The borrower was actively engaged during project preparation and committed to the process, politically, technically, and with the necessary availability of the political leaders and technical experts.

During implementation: The borrower was actively engaged during project implementation. Commitment of the MoF was challenged, due to two changes of the leading party in the Government during project implementation. Therefore the political commitment decreased over the project implementation period. The counterpart funds were generally provided on a timely basis, except in the first half of 2004, when the burdened state budget did not provided only smaller part of the funds necessary for timely project implementation. The necessary policy decisions were delayed during the first months after changes in Government, but otherwise they were made on a timely basis. The necessary technical decisions were made on a timely basis in majority of cases. The MoHSW's internal audit monitored the performance of its PMU during implementation and found it satisfactory. The PMU had the necessary project management, procurement, financial management, and other technical skills required.

Assessment of the Bank's Performance.

During preparation: The Bank was responsive to the needs of the Borrower during project preparation and provided adequate technical advice. The Bank was timely in its assistance, response and advice.

During supervision: The Bank was responsive to the needs of the Borrower during supervision and provided adequate technical advice during the supervision of the project. It was timely in providing assistance and response, both on technical and fiduciary issues.

Summary of Key Lessons Learned.

Reflecting on all of the above information, and as the main lesson from implementation of the Health System Project, when undertaking a reform of the health system, the Ministry of Health and Social Welfare should take into consideration using output based policy in design of provider payment system. Working with the Bank offers both financial and technical support in the reform issues.

In the Ministry's opinion the Government of Croatia might generally learn about implementing donor-supported reforms.

From the experience, the Agency suggest that the Bank might take into consideration importance of discussing of all key issues directly with the key policy makers when working with other countries.

(b) Cofinanciers:

Not applicable.

(c) Other partners (NGOs/private sector):

Not applicable.

10. Additional Information

CROATIAN NATIONAL HEALTH STRATEGY:
BACKGROUND AND SYNTHESIS

Background

Croatian National Health Strategy adopted by the Government on March 22, 2006, is at this stage a relatively high-level strategic framework aimed at addressing the inherent trade-offs required to simultaneously ensure broad access, increased effectiveness, quality and cost-efficiency of the Croatian health system. Adopted strategic framework is guided by the following principles (examples included for each): **Access** – territorial and to a defined packet of services; **Equity** – anti-corruption and increased transparency measures; **Effectiveness/efficiency** – improvements in medical education, adoption of EU standards for specialization verification and physician accreditation, and health facility investment masterplan for all provinces; **Quality** – improvements in all areas, including patient treatment, standardization of internal organization, procedures and behaviors, and hospital categorization and accreditation system; **Safety –** occupational safety and behaviors for medical professionals and patients; **Solidarity** – new forms of solidarity and insurance in line with the demands of cost-efficiency in the health care system; and **Economic rationality** of the reform – focusing on costs and impacts of any health reform measure throughout the reform process.

Synthesis: Key Elements of the Proposed National Health Strategy

The key elements of the adopted national health strategy framework are: **(i) Healthcare System Reform, (ii) Healthcare Financing Reform, and (iii) Public Health System Reform**. The synthesis below is based on the Bank's reading and understanding of the document:

(i) Healthcare System Reform aims to move from a disconnected system of different components and care to an **integrated healthcare system** through several categories of measures:

- **Strengthening primary healthcare** as the core service provider in the health system and **increasing rationality and access** (e.g., better distribution of tertiary care centers) **in use of secondary and tertiary care**, aiming for 80 percent of the cases to be handled in primary care, rational use of secondary and tertiary care, and decrease in overall health expenditures. To achieve this, series of measures will be applied in each part of the health system:
- **In primary healthcare** the Ministry is proposing to strengthen quality of services through improved medical education at undergraduate and postgraduate levels; investments in better equipment including diagnostic and lab equipment; introduction of telemedicine; consultative approach to patients; piloting "fund-holding" methods of payment; redefining roles of various actors in the primary health care system such as those of primary healthcare teams and healthcare centers; closer integration with the actors outside the system, such as social welfare institutions, employers, patient associations; temper counter-productive practices (e.g., excessive referrals to clinics); and emphasize the role of a primary family physician;
- **In secondary healthcare** the proposed measures include a thorough review and categorization of the hospital system through development of a database containing detailed indicators for each hospital (e.g., type of activities, number of employees); changes based on the initial review aimed

at better organization, effectiveness and efficiency of healthcare such as capacity rationalization including individual hospital closures, mergers and devolutions of existing hospital systems; piloting and rolling-out institutional accreditation process; and other measures to ensure that the hospital care is provided in a rational manner in accordance with international standards (e.g., sharing of diagnostic findings, strict hospital admission criteria, introduction of day hospitals into the system to handle up to 30 percent of surgical interventions currently requiring overnight stay, introduction of after-care, application of complementarity in the health system in neighboring provinces, introduction of new types of institutions such as long-term care institutions and hospices);

- **In tertiary healthcare** the proposed measures include better territorial distribution (polycentrism), and focus on high quality services, in particular in teaching hospitals;

- **Full informatization of the health system (e-health)** enabling for a unique electronic medical patient record and integrated medical documentation to be generated, kept, updated, and shared within the system; and for activities and key data in various health system segments to be shared and transparent in such a way as to enable efficient decision-making, and overall control of expenditures and quality of care. This measure will help strengthen interconnectedness and partnership between different segments of the health system;

- Parallel and coherent application of an additional set of **cross-cutting measures: decentralization** of authority and organization of activities primarily to the county level; **centralized policy, planning, regulation and standardization** of institutions and activities (e.g., categorization and accreditation); **complementarity** in the system focused on strengthening the links and avoiding unnecessary overlaps between the institutions and actors in the system, and **strategic approach** to Croatia's place in the **European** health system, i.e., Europeanization of Croatian health system;

- Set of **objectives around enforcing core desired behaviors** in the system, such as: rational use and distribution of available resources according to the core guiding principles (i.e., equity, solidarity, access, effectiveness/efficiency, quality); improvements in employment regulations (e.g., flexibility) and incentive system (e.g., to encourage entrepreneurship, to reward success); elimination of bureaucratic behaviors and red-tape;

- Continued focus on **drug policy and drug expenditures** through: **informatization** to enable **fact-based rational national drug policy**; **addition of non-drug therapies** (e.g., physical therapy, nutritional therapy); **efficient prescription policy and continuous introduction of state-of-the art practices in practitioners' prescription-writing behaviors**, such as upkeep of basic, supplemental, and additional drug lists; use of reference pricing; emphasis on use of generics; encouraging patients to make rational choices by providing needed information and introducing taxes and co-payments; use of pharmaco-economic measures and regular updates and distribution of such information to physicians; and

- **Overhaul of the emergency medical services (EMS)** including: developing a new policy and strategy for the **out-of-hospital emergency medical services** as consolidated services of independent activities performed by emergency medicine specialists; establishing the **Institute for Emergency Medical Services** to monitor and help meet various needs within the system (e.g., equipment, education) and coordinate activities and transport needs; and creating **integrated in-hospital emergency medical services** by developing national strategy and action plan, establishing a committee for standardization and coordination of the emergency and catastrophe medical response, develop triage systems and other protocols; ensure appropriate communication network; ensure EMS training and education; develop disaster response scenarios; and

continuously improve services through training and equipment upgrades.

(ii) Healthcare Financing Reform aims to limit growth of healthcare expenditures, establish fiscal stability, introduce planning into system management, and ensure that the existing and new relevant regulations and policies are carried out in the system. Proposed measures fall into several categories:

- **Reducing public health expenditures vis-à-vis private health expenditures** by defining list of services not covered by basic health insurance; discouraging unnecessary use of healthcare; improving regulation of patients' direct payments through administrative fees (which should be universal except for some preventative and chronic care services) and co-payments; forcing providers to show patients' direct payments as income to stimulate their collection; improving regulation of compulsory and supplementary health insurance;
- **Reducing number of capitation-payment contracts** with providers in favor of pay-for-service or per-case contracts;
- Encouraging **rationalization of activities** through hospital specialization via categorization and accreditation, use of diagnostic and therapeutic algorithms and standardization of activities;
- Introducing **case-based hospital payments** (variant of DRGs);
- Ensuring rationalization of **procurement and use of diagnostic equipment** in line with the hospital's categorization and clinical guidelines;
- Introducing **smart insurance cards** to feed into the e-health system and enable tracking of financial and other indicators;
- Keeping a **positive drug list** with **reference pricing and rational pharmacotherapy** algorithms based on branch of medicine and departments; and
- Ensuring faster and better controlled introduction of **new technologies** into clinical practice.

(iii) Public health system reform aims to reorganize the existing system and institutions to ensure statutory and health prevention:

- **Statutory prevention** assumes regulatory activities including **developing public health strategy** for the system and its core institutions; **ensuring regulatory harmonization with the EU** (e.g., **health surveillance system** and activities, **quality control**, **occupational safety**, **drug safety control**); **establishing Public Health Fund** to ensure targeted financing of special health risk measures (e.g., tobacco, alcohol) based on the "polluter pays" principle; establishing targeted **education and accreditation** programs; other measures such as establishing public health research fund; and
- **Healthcare prevention** includes a broad spectrum of **health and health lifestyle promotion activities** (e.g., against use of tobacco, obesity prevention, early cancer) and **preventative and diagnostic activities** (e.g., regular cancer screening).

Annex 1. Key Performance Indicators/Log Frame Matrix

Program Development Indicator	Status[1]
1. Preparation of the strategic plan for the restructuring and development of Croatia's health system and consideration of plan by Croatian decision makers	**Partially Achieved.** A Croatian National Health Strategy was adopted by the Croatian Government on March 22, 2006. It includes many of the concepts on the restructuring of the health service network and improving provider payment system, initiated under the HSP. The Strategy is a fairly high-level document, still requiring significant effort to develop an implementation plan for accomplishing the strategy, including efforts to build in stakeholder engagement and ownership. The MoHSW is in the process of using resources from a PHRD Grant to support the development of a third health project to develop implementation plans for key components of the strategy.
Intermediate outcome indicators	**Status[1]**
Component A1: Health Service Delivery System - Primary Health Care	
1. Decrease by 10% in outpatient specialist referrals per 1000 registered group-practice patients in Koprivnica-Krizevci County	**Not measured.** Not expected to be achieved as the health service payment system was not modified for the Koprivnica pilot and is not yet modified nationally, incentive for referrals remains. HZZO has, since 2002, limited referrals and prescriptions implementing by introducing caps.
2. Decrease by 5% in hospital inpatient admission per 1000 registered group-practice patients in Koprivnica-Krizevci County	**Not measured.** Not expected to be achieved as the health service payment system was not modified for the Koprivnica pilot and is not yet modified nationally, incentive for referrals remains. HZZO has, since 2002, limited referrals and prescriptions implementing by introducing caps.
3. Decrease in the inpatient share of total health expenditures for group-practice members in Koprivnica-Krizevci County	**Not measured.** Marginal improvement would be expected given that some patients are now treated in day services at the hospital.
4. Decrease in average inflation-adjusted total health expenditures per group practice member for selected tracer conditions, at least relative to people not in group practices	**Not measured.** Marginal improvement expected given that some patients are now treated in day services at the hospital.
5. Decrease in post-operative infection rates in the Koprivnica hospital	**Not measured**. While not yet measured, Koprivnica hospital has recently introduced protocols for measuring post-operative procedures which will be used for internal hospital management purposes.
6. Group practices established in pilot sites in Koprivnica-Krizevci County	**Partially achieved.** In Koprivnica-Krizevci County, six group practices were organized – including 24 GP/nurse teams which operate on morning/afternoon shifts in 12 primary health care offices. However, the legal and financial framework for proper Group Practice that would allow fund-holding and risk pooling up GPs has not been established.

7. Practice managers trained and hired	**Not achieved.** As the legal framework for Group Practices was not established, the role of practice managers was not developed.
Component A2: Health Service Delivery System – Hospital and Secondary Services	
8. Growth in the proportion of Koprivnica hospital patients treated through alternative levels of care rather than standard inpatient care	**Achieved.** In the new emergency medicine department 1686 patients were treated through day care in a one-year period. Daily psychiatric care has also been established.
9. Reduction in the average length of stay for selected tracer conditions in Koprivnica-Krizevci County	**Not measured.** Marginal improvement expected as discharge procedures were established in Koprivnica hospital which facilitates timely discharge and reduces need for readmissions; the day-services established at the hospital could also reduce ALOS for certain types of cases. However, the provider payment system is still rewarding longer stays. A pilot reform of the payment system is currently being initiated by HZZO which will specifically address this issue.
10. Alternative levels of care (i.e. day surgery; day hospital, respite, hospice, home care services) established at Koprivnica Hospital	**Achieved.** Day surgery, day hospital and a new hospital emergency ward has been established. Improved community care developed for patients with mental disorders and terminally ill patients.
11. New payment methods, which imply improved incentives for effective use of resources, designed and implemented for outpatient and inpatient care in pilot sites	**Not achieved.** The payment per therapeutic group (PPTP) has not been substantively updated to reflect the pilot service delivery reforms (alternative care provided by the hospital)
12. Pilot health information system developed that utilizes an open-architecture design, that synthesizes clinical, administrative and financial data at the patient-level, provider-level and payer level	**Partially achieved.** New, more reliable hardware has been installed. Data has been migrated to new system.
13. Quality assurance system developed and implemented in Koprivnica hospital	**Achieved.** Hospital staff has been trained and procedures documented. Quality assurance set up for hospital acquired infections, pharmaceuticals, management of clinical risks, medical documentation, blood transfusion, and other key areas of hospital performance.
14. Clinical guidelines, from general practice to cardiac care, prepared and disseminated	**Achieved.** Thirty (30) clinical therapeutic guidelines were developed and disseminated.
15. Appropriateness indicators for cardiovascular disease interventions (drug treatment regimens, angioplasty, coronary bypass) established	**Achieved.** Drug treatment regimens developed. Angioplasty and coronary bypass appropriateness indicators established by the National Association of Cardiologists.
16. Management of waiting lists for high-end CVD surgical care by operating center and nationwide	**Achieved.** Waiting lists were managed and made more transparent. Acute patients and patients with defined life threatening conditions are treated immediately, and the waiting lists of non-acute patients are open to public review.
17. External peer review processes for CVD interventions by specialty and by the Health Insurance Institute	**Achieved.** Providers and Health Insurance Institute use their own procedures of continuous international exchanges, including peer reviews.
18. Number of Croatians receiving CVD surgery	**Not measured.** This information is not captured by

outside Croatia.	any source. While there is increased national capacity for providing CVD surgery in Croatia, national incomes have continued to grow thus allowing more Croatians to receive care outside the country if desired.
19. Consumer information available on disease prevention and treatment compliance	**Achieved.** Disease prevention and treatment compliance information distributed through media campaign and the activities of the health promotion unit of the Croatian Institute of Public Health. No specific survey data available yet to measure awareness level.
20. Effective GP training on CVD management at the PHC level	**Achieved.** Workshops provided on the CVD guidelines for PHC.
21. Health promotion campaign elements addressing CVD prevention	**Achieved.** Health promotion campaign implemented from 2001-2003. Health promotion activities continue through the Health Promotion Unit, although in a less campaign-like approach.
22. Development of cardiac treatment protocols	**Achieved.** Eighteen (18) guidelines for the primary and secondary prevention of CVD developed.
23. MD training in emergency CVD management and use of protocols	**Achieved.** Life support courses were provided to physicians by the European Resuscitation Council.
24. Monitoring of practice patterns relative to protocols	**Partially achieved.** Monitoring of practice according to protocols by HZZO limited by their capacity.
25. Use of new and existing coronary angioplasty equipment at high capacity	**Achieved.** The usage of the equipment in Dubrava and Rebro hospitals in Zagreb is high. However, there are limits on the number of procedures able to be provided in the contracts between the hospitals and HZZO that result in some under-utilization.
26. Clinical guidelines developed for access to tertiary coronary interventions	**Achieved.** The National Association of Cardiologists has established guidelines.
27. Improvements to emergency medical communications system extended nationwide	**Partially achieved.** The Institute for Emergency Medical Services in Zagreb was reorganized and equipped with new digital telecommunication system incorporated in the national network for emergency services, allowing for better management of the emergency of services in Zagreb and a reduction in average response times from 30 to 9 minutes. As the national communication network did not allow for extension of this activity nation-wide, a telecommunication/telemedicine activity was added to the Project. It equipped PHC and diagnostic sites on selected islands and linked them with referral sites in Zagreb and Split. The system as operational at the time of Project completion.
Component B1: Public Health – Health Monitoring and Program Evaluation	
28. Creation of monitoring systems to track secular changes in relevant behavior that affects health risks	**Achieved.** A system of comprehensive household surveys for adults and children established in 2003 and expected to be continued in 2008.
29. Comprehensive population-based data on health status	**Achieved.** In 2003, regionally representative population based surveys (adult and children) on

	health status and life-styles were conducted. Plans are to follow-up on these surveys in 2008. The transfer of the methodology for conducting these surveys and doing disease incidence analysis widely seen as successful.
30. Evaluation studies of national CVD program	**Not measured.** Plans are to use the data from the 2008 to determine changes in the key indicators of the national CVD program, i.e. awareness and life-style risk factors. Data available on changes in health status not directly attributable directly to the Project or Bank engagement. For example, the SDR for all ages from circulatory diseases has decreased from 572.7 in 2000 to 419.0 in 2004 during the implementation of the National Heart Health Program. At the same time, there was growth in national income and changes in the financing and quality of services.
Component B2: Public Health – Public Health Promotion	
31. Creation of a unit responsible for all health promotion activities	**Achieved.** Unit established in the Croatian Public Health Institute. The Unit is not yet fully staffed, however.
Component C: Pharmaceutical Waste Disposal	
32. Disposal of pharmaceutical waste from agreed sites in an environmentally safe manner that conforms to regulatory requirements and procedures agreed for this Loan	**Achieved.** 1722.7 tons of waste was sorted; 1328.8 tons of drugs were transported and incinerated; 393.9 tons of other waste disposed at the recycling site/landfill; and 85.4 tons of fly-ash transported and safely disposed.
Component D: System Wide Initiatives	
33. Complete health financing studies, including: study of scope and structure of insurance arrangements; study of participation payments (co-insurance); alternative revenue sources; provider payment arrangements; pharmaceutical market composition and functioning, drug lists and formularies, alternative approaches to drug pricing and financing and links to new provider payment systems; and the institutional capacity of the health system management	**Partially achieved.** The pharmaceutical study was completed under the project. The decision of the MoHSW to not use Loan proceeds for significant technical assistance work in 2002 reduced the scope of this component significantly. In 2004, a World Bank Health Financing study provided much of the analytical information needed on the structure of the insurance arrangements and the provider payment system. The MoHSW plans to support future health financing analytical work, first with grant resources under a PHRD Grant to support the preparation of the third health project. With its own resources, MoHSW developed a plan for an integrated information system and the first phase of an accreditation and categorization study.
34. Evaluation of pilots and policy options	**Not achieved.** As the investments in the Koprivnica pilot were only finished at the time of the Project completion, there was no time and it was not yet timely to do an evaluation of the pilot. Additionally, it is recognized that changes in the payment system still needs to catch up to the restructuring of the services supported by the pilot. Analysis of the pilot work and further reform of the payment systems,

	planned under the PHRD Grant for the third health project currently being executed by the MoHSW.
35. Upgrade of sanitation and hygiene facilities in targeted hospitals (added in 2003)	**Achieved.** 141 sanitary facilities in 13 hospitals around Croatia upgraded to meet required standard and improve the quality of care.
Component E: Project Management Unit	
36. The establishment and maintenance of a fully operational Project Management Unit	**Achieved.** A PMU was adequately staffed and operational throughout the project period. In fact, the PMU is an integral part of the MoHSW and was largely financed by the state budget.

1. The status shown is at the time project completion. The final Implementation Status Report (ISR) was prepared in conjunction with the ICR mission and, therefore, the status of the indicators is consistent between the two reports.

Annex 2. Project Costs and Financing

Project Cost by Component (in US$ million equivalent)

Component	Appraisal Estimate US$ million	Actual/Latest Estimate US$ million	Percentage of Appraisal
1. Health Service Delivery	26.40	25.50	97
2. Public Health	1.50	1.70	113
3. Pharmaceutical Waste Disposal	3.80	1.70	45
4. System Wide Initiatives	6.90	3.30	48
5. Project Management	1.30	1.60	123
Total Baseline Cost	39.90	33.80	
Total Project Costs	39.90	33.80	
Total Financing Required	39.90	33.80	

Project Costs by Procurement Arrangements (Appraisal Estimate) (US$ million equivalent)

Expenditure Category	Procurement Method[1] ICB	NCB	Other[2]	N.B.F.	Total Cost
1. Works	3.50 (2.50)	0.50 (0.30)	0.00 (0.00)	0.00 (0.00)	4.00 (2.80)
2. Goods	17.20 (13.00)	0.00 (0.00)	2.60 (2.10)	0.00 (0.00)	19.80 (15.10)
3. Services	0.00 (0.00)	0.00 (0.00)	6.60 (6.00)	0.00 (0.00)	6.60 (6.00)
4. Technical Services	0.70 (0.50)	0.00 (0.00)	3.10 (2.50)	0.00 (0.00)	3.80 (3.00)
5. Training	0.00 (0.00)	0.00 (0.00)	2.10 (2.10)	0.00 (0.00)	2.10 (2.10)
6. Recurrent Costs	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	3.60 (0.00)	3.60 (0.00)
Total	21.40 (16.00)	0.50 (0.30)	14.40 (12.70)	3.60 (0.00)	39.90 (29.00)

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US$ million equivalent)

Expenditure Category	Procurement Method[1]				Total Cost
	ICB	NCB	Other[2]	N.B.F.	
1. Works	7.90 (5.50)	3.80 (2.70)	0.00 (0.00)	0.00 (0.00)	11.70 (8.20)
2. Goods	11.80 (9.66)	0.00 (0.00)	0.40 (0.30)	0.00 (0.00)	12.20 (9.96)
3. Services	0.00 (0.00)	0.00 (0.00)	7.60 (6.30)	0.00 (0.00)	7.60 (6.30)
4. Technical Services	0.60 (0.50)	0.00 (0.00)	1.00 (0.80)	0.00 (0.00)	1.60 (1.30)
5. Training	0.00 (0.00)	0.00 (0.00)	0.50 (0.40)	0.00 (0.00)	0.50 (0.40)
6. Recurrent Costs	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.10 (0.00)	0.10 (0.00)
Total	20.30 (15.66)	3.80 (2.70)	9.50 (7.80)	0.10 (0.00)	33.70 (26.16)

[1/] Figures in parenthesis are the amounts to be financed by the Bank Loan. All costs include contingencies.

[2/] Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Project Financing by Component (in US$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	Bank	Govt.	CoF.	Bank	Govt.	CoF.	Bank	Govt.	CoF.
1. Health Service Delivery	18.50	7.90		19.76	5.50		106.8	69.6	
2. Public Health	1.00	0.50		1.60	0.20		160.0	40.0	
3. Pharmaceutical Waste Disposal	3.10	0.70		1.30	0.40		41.9	57.1	
4. System Wide Initiatives	5.30	1.60		2.70	0.50		50.9	31.3	
5. Project Management	1.10	0.20		0.80	0.80		72.7	400.0	

Annex 3. Economic Costs and Benefits

A cost-benefit analysis was conducted at the time of Project appraisal. The analysis recognized that there both potentially quantifiable benefits as well as those that could not be quantified. From that analysis of the limited set of quantifiable benefits and costs limited to the pilot Koprivnica-Kricevci County of 130,000 people, the general conclusion was that for the Government, net costs would outstrip net savings by $484,000 over 20 years and that the overall net present value or NPV was negative (-$1,459,274) based on a discount rate of 6.5 percent (the approximate loan rate). The NPV was larger in magnitude because savings were expected to accrue more in later years rather than in earlier years of the Project lifecycle. It was expected that the costs could be and would be absorbed through natural rate of growth of the health budget, assuming that it grew at the same rate as the economy generally. It was estimated that this growth would be more than the net Project costs by more than $38.2 million over 20 years, and a consequently have a positive NPV of $16.31 million.

It is not possible to replicate calculation of the NPV usually actual rather than estimated and assumed values. However, each of the assumptions upon which the original economic analysis was conducted was reviewed (see following table). In summary, the review shows that (i) the economic and fiscal context in which the project was implemented was in line with and even more favorable than anticipated; (ii) due to implementation delays and lack of evaluation, information needed to update the economic analysis is not available; and (iii) many of the intended benefits are still only potential benefits, pending policy decisions on changing the provider payment system and expanding the health services restructuring to a national level.

Table. Review of Project Economic Analysis Assumptions

Assumptions – Macro and Fiscal	
GDP Growth would be 3% per annum and public health expenditures would grow in line with GDP	GDP growth exceeded assumption (5.2% in 2002, 4.3% in 2003 and 3.8% in 2004). Public health expenditures grew on average 3.9% from 1999-2004. Public health expenditures declined as a % of GDP from 8% in 1999 to 7.13% in 2005.
Assumptions – Benefits	
(a) Direct Financial Benefits	
In Koprivnica, hospital admissions will fall by 10 percent while the cost of providing outpatient and sub-acute services will increase	Data not available, but assumption not likely to hold. As discussed in Annex 1, the fundamental payment mechanisms have not yet been changed to reduce the incentive for inpatient admissions. The rate of admission in Koprivnica would likely remain the same although the bed numbers were reduced as part of the restructuring plan.
In Koprivnica, staff reductions will occur (est. 10% if year 1, 20% in years 2 and 3, and 25% in years 4 and 5)	Data not available, but assumption not likely to hold. With the admission rates constant and the same regulatory environment, staff reductions not likely to occur especially in the magnitudes projected in the original economic analysis.
In Koprivnica, hospital restructuring will lead to facility closure further reducing admissions as well as ALOS by 10%	Data not available, but assumption not likely to hold specific to Koprivnica. ALOS has decreased by more than 10% nationally during project implementation period (from 9.2 in 2000 to 8.2 in 2004). The restructuring plan in Koprivnica did not call for facility closures and ALOS would not be further affected. The health services master plan currently

	being initiated will discuss the extent to which facility are needed. Facility mergers rather than facility closures are seen as a more viable policy option.
The pilot of Koprivnica will be replicated nation-wide in years 6-10, scaling up the benefits to the nation rather	Information not yet available. A health services master plan is currently being initiated that would look at scaling up the lessons of Koprivnica. However, experience in other countries (i.e. Estonia which is notable for its reform performance) indicates that nation-wide hospital restructuring takes at least 15 years once initiated.
Reduction in rent per month of $40,000 for storing outdated and unusable pharmaceuticals	Data not available, but assumption likely to hold. As described, all outdated and unusable pharmaceuticals and other medical material has been disposed of and the storage sites have been cleaned.
(b) Indirect Benefits	
In Koprivnica, reduced ALOS will reduce productivity losses (a reduction in 1 day on in-patient care will gain about 0.2 days in work productivity	Data not available for Koprivnica specifically. ALOS has been decreasing in Croatia due to the introduction of a case-based payment mechanism (or payment per therapeutic group) in 2002. ALOS in acute hospitals was 9.2 in 2000 and was 8.2 in 2004 (average for NMS-8 is 7.4). No payment provisions specific to the Koprivnica pilot have been introduced -- GP group practice fund holding or payments for sub-acute care at hospitals – which would provide further incentives for reduced ALOS. Changes in payment mechanisms can in part reasonably be attributed to general Bank engagement with the Government.
Health benefits will accrue from the CVD treatment and prevention programs; improved protocols, training and quality assurance systems; and reduced health risk of surplus pharmaceuticals	Insufficient data available and data on changes in health status not directly attributable directly to the Project or Bank engagement. For example, the SDR for all ages from circulatory diseases has decreased from 572.7 in 2000 to 419.0 in 2004 during the implementation of the National Heart Health Program. At the same time, there was growth in national income and changes in the financing and quality of services.
(c) Long-term Benefits	
There is inherent value in the learning and dissemination	Not quantifiable, although assumption valid.
The development of training capacity will continue to provide benefits	Not quantifiable, although assumption valid.
Improved information and capacity will lead to better decision making in the future	Not quantifiable, although assumption valid.
Assumptions – Costs	
(a) Direct Costs of the Loan	
US$29.0 million Loan disbursed over a 4 year period at standard Bank terms for Croatia	US$26.16 disbursed over a period 5.5 year period at standard Bank terms for Croatia
(b) Incremental Operating Costs	
Maintenance of the rehabilitated buildings, maintenance of equipment, replacement of equipment, and pharmaceuticals associated with	Data not available. Most civil works and equipment provided towards the end of the Project. Specific maintenance and operating expenses not available,

increased outpatient care	although the assumptions upon which the economic analysis was conducted are valid.

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating	
Month/Year	Count	Specialty	Implementation Progress	Development Objective
Identification/Preparation				
03/28/1998	*5*	PROGRAM TEAM LEADER (1); HEALTH SPECIALIST (1); MEDICAL EQUIPMENT EXPERT (1); INFORMATION SPECIALIST (1); IMPLEMENTATION SPECIALIST (1)	S	S
11/06/1998	*7*	PROGRAM TEAM LEADER (1); HEALTH FINANCE SPECIALIST (1); SR. HEALTH SPECIALIST (1); OPERATIONS OFFICER (1); PUBLIC HEALTH SPECIALIST (1); OPERATIONS ANALYST (1); IMPLEMENTATION SPECIALIST (1)	S	S
02/04/1999	*6*	SECTOR DIRECTOR (1); PROGRAM TEAM LEADER (1); OPERATIONS OFFICER (1); HEALTH FINANCE SPECIALIST (1); OPERATIONS ANALYST (1); IMPLEMENTATION ANALYST (1)	S	S
Appraisal/Negotiation				
05/14/1999	*9*	SECTOR DIRECTOR (1); HEALTH SECTOR LEADER (1); PROGRAM TEAM LEADER (1); HEALTH FINANCE SPECIALIST (1); PUBLIC HEALTH SPECIALIST (1); OPERATIONS OFFICER (1); OPERATIONS ANALYST (1); PROCUREMENT SPECIALIST (1); FINANCIAL ANALYST (1)	S	S
Supervision				
03/24/2000	*6*	MISSION LEADER, TTL (1); PTL (1); OPERATIONS ANALYST (1); PROCUREMENT SPECIALIST	S	S

			(1); PUBLIC HEALTH SPEC. (1); PROJECT OFFICER (1)		
	07/04/2000	*6*	TASK TEAM LEADER (1); OPERATIONS ANALYST (1); PROCUREMENT SPECIALIST (1); PROGRAM TEAM LEADER (1); OPERATIONS OFFICER (1); PROCUREMENT ANALYST (1)	S	S
	10/20/2000	*6*	TASK TEAM LEADER (1); PROGRAM TEAM LEADER (1); PROCUREMENT SPECIALIST (1); OPERATIONS ANALYST (1); HEALTH SPECIALIST (1); OPERATIONS OFFICER (1)	S	S
	03/02/2001	*3*	TASK TEAM LEADER (1); PROCUREMENT SPECIALIST (1); OPERATIONS OFFICER (1)	S	S
	10/19/2001	*5*	PROGRAM TEAM LEADER (1); TASK TEAM LEADER (1); PROC. ACCR. SPECIALIST (1); SR. HEALTH SPECIALIST (1); SR. OPERATIONS OFFICER (1)	S	S
	04/03/2003	*4*	PROGRAM TEAM LEADER (1); PROCUREMENT SPECIALIST (1); HEALTH ECONOMIST (1); HEALTH SECTOR MANAGER (1)	S	S
	10/22/2004	*4*	MISSION LEADER (1); PROJECT IMPLEMENTATION (1); PROCUREMENT (1); PROJECT MANAGEMENT (1)	S	S
	05/12/05	*5*	MISSION LEADER (1); SECTOR MANAGER (1); HD COUNTRY SECTOR COORDINATION (1); OPERATIONS ANALYST (1); HOSPITAL CONSULTANT (1)		
	09/26/05	*2*	MISSION LEADER (1); OPERATIONS OFFICER (1)		
ICR	12/04/05	*3*	MISSION LEADER (1); OPERATIONS OFFICER (2)		

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	

	No. Staff weeks	US$ ('000)
Identification/Preparation	N.A.	454,079
Appraisal/Negotiation	N.A.	N.A.
Supervision	N.A.	551,752
ICR	N.A.	37,159
Total	N.A.	1,042,990

N.A. = Not available.

The Bank's information system no longer providers reports providing information on the number of staff weeks and only provides budget data by preparation and supervision stages.

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	Rating
☐ *Macro policies*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☒ *Sector Policies*	○ *H* ○ *SU* ● *M* ○ *N* ○ *NA*
☐ *Physical*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☐ *Financial*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☒ *Institutional Development*	○ *H* ○ *SU* ● *M* ○ *N* ○ *NA*
☐ *Environmental*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
Social	
☐ *Poverty Reduction*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☐ *Gender*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☐ *Other (Please specify)*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☐ *Private sector development*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☒ *Public sector management*	○ *H* ○ *SU* ● *M* ○ *N* ○ *NA*
☐ *Other (Please specify)*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance	*Rating*			
☒ *Lending*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Supervision*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Overall*	○ *HS*	● *S*	○ *U*	○ *HU*

6.2 Borrower performance	*Rating*			
☒ *Preparation*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Government implementation performance*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Implementation agency performance*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Overall*	○ *HS*	● *S*	○ *U*	○ *HU*

Annex 7. List of Supporting Documents

Staff Appraisal Report, No. 19155 dated July 2, 1999

Loan Agreement and Supplemental Letter, No. 4513 HR dated October 7, 1999

World Bank Mission Aide Memoires and Implementation Status Reports

Quarterly Project Progress Reports from the Borrower

Consultant Reports financed under the Project

Country Assistance Strategy , No. 14088-HR dated June 3, 1999

Country Assistance Strategy Progress Report, No. 22633-HR dated September 28, 2001

Country Assistance Evaluation, No. 30714 dated November 17, 2004

Ministry of Health and Social Welfare Implementation Completion Report

Croatia Health Financing Study, No. 27151-HR dated April 25, 2004